

# The Disputation — a Special Type of Cooperative Argumentative Dialogue

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**ABSTRACT:** This article consists of three parts, two introductory, in which the limits and the methods of analysis of dialogues are expounded, and the major part, in which the main features of a philosophical theory of disputation are outlined.

1. It was an essential aim of the philosophical analysis of argumentative dialogues to develop tools of substantiation for cases in which logic doesn't help any more. In the first part of this paper I show that such tools can and will be developed only by analyzing argumentations ("argumentation" in the sense of a monologue in which arguments for a thesis are brought forward), and that the analysis of argumentative dialogues doesn't contribute anything to the development of such tools.

2. The systematically first task of the philosophical analysis of dialogues consists in understanding the general practical aims of philosophically interesting types of dialogue. Only subsequently the rules of the dialogue can be reconstructed as good means for reaching these aims. Dialogical games constructed without referring to such a purpose are externally senseless and useless.

3. The third part is an outline of a philosophical theory of disputation ("disputation" here will mean: (learned) dialogue in which the participants cooperatively though perhaps controversially attempt to find out by means of arguments and mutual criticism whether a thesis is true or false). Disputations contain argumentations, and many functions of a disputation can also be fulfilled by argumentations alone. Certifying the truth of convictions is the specific aim of disputation. This is accomplished by eliminating errors of substantiation and foundation as effectively as possible, in revising false convictions and their foundations, thereby making the remaining convictions more certain. Based on this analysis of the aim of disputation, the basic rules of disputations will be critically reconstructed: possible moves, rules of sequence, and the internal aim and ends of disputations.

**KEY WORDS:** monological argumentation, function of argumentation, demonstration, limits of argumentation theory, dialogical disputation, limits of dialogue analysis, ends of disputation, certifying, rules for disputation.

## 1. ARGUMENTATIONS AND ARGUMENTATIVE DIALOGUES. SOME LIMITS OF THE ANALYSIS OF ARGUMENTATIVE DIALOGUES

In the last few decades, philosophers have developed a wealth of models for (argumentative) dialogues, e.g. P. Lorenzen, K. Lorenz, J. Hintikka, D.

Walton, C. Hamblin, R. Hegselmann<sup>1</sup>. If such models should be not just pragmatical, semiotic ones, they have some (in a broad sense) epistemological aims in common with informal logic, the theory of argumentation, and the critical thinking movement: to remedy the deficiencies of formal logic and to work out a more comprehensive tool of substantiation. Such deficiencies of formal logic are:

- DL1 The controversy about the basis of logic showed that logical rules need a foundation themselves; and this foundation cannot be a logical one.
- DL2 There seem to be non-logical "inferences": practical reasoning, substantiation by circumstantial evidence, inductive inferences.
- DL3 We lack pragmatical rules for the application of (even deductive) inferences. It is only one condition of the validity and the convincing effect of an argumentation that the conclusion follows validly by logical implication from the premisses. In addition to this among others the premisses must be true and known as true by the addressee.

I want to show that these deficiencies can be removed by means of an analysis of monological argumentation, and that the inclusion of dialogical components in this analysis doesn't contribute anything to their removal<sup>2</sup>.

An argumentation (in the Latin sense of *argumentatio*) consists of a thesis and at least one argument, i.e. a sentence with which the acceptability of the thesis shall be shown. "Acceptability" here means: "truth, probability, or verisimilitude". The rules of argumentation decide if an argumentation is valid and adequate. The rules are constructed in such a way that the argumentation is valid and adequate exactly in case it demonstrates the acceptability of the thesis to the addressee. This can be shown simply for logical argumentations<sup>3</sup>. The most important *basic rules of logical argumentation* are:

- L1 The argumentation consists of a thesis, at least one argument, and an indicator of argumentation.
- L2 The indicator of argumentation makes clear which sentence is the thesis, which sentences are arguments, and that it is a logical argumentation.
- L3 The thesis is logically implied by the arguments.
- L4 The arguments are true.

The basic rules define if an argumentation is valid. The most important *pragmatical rules* are:

- L5 The addressee must know that the arguments are true.
- L6 The interrelation of implication between the arguments and the thesis must be rather simple and therefore easily to be found out<sup>4</sup>.

The pragmatic rules together with the basic ones define the adequacy of an argumentation. There are even more rules, e.g. those of liberalization (which allow to leave out certain premisses or the indicator of argumentation); but they aren't specific to our concern.

Why do valid and adequate logical argumentations demonstrate the acceptability of the thesis to the addressee? Logical argumentation is based on the general epistemological principle that a proposition is true if it is implied logically by true propositions. This principle as well is part of the (tacit) knowledge of the addressee. Using the material presented in a valid and adequate argumentation, the addressee can check systematically and with a positive result if the conditions of truth of the thesis quoted in the epistemological principle are fulfilled. He can thereby convince himself of the truth of the thesis. Since rules L4 and L5 are fulfilled using his foreknowledge he can immediately check the truth of the arguments. In addition if the rules L3 and L6 are fulfilled, he can check the interrelation of implication using his knowledge of the meaning of logical connectives. The argumentation is an open invitation for such a check, an invitation expressed by the indicator of argumentation. The check must lead a rational addressee to a positive result. Therefore the valid and adequate argumentation demonstrates the acceptability of the thesis.

Which of the above mentioned three deficiencies of formal logic are eliminated in developing such rules of argumentation? DL3 is: Rules of argumentation of the quoted type, surely, provide us with clear criteria for the validity of argumentation and for the conditions under which an argumentation normally does really convince. But not DL1 and DL2: Well-founded types of inferences are already presupposed in the rules of argumentation (cf. our epistemological principle and the rule L3). Therefore the study of such inferences is not a "natural" task of the theory of argumentation, but of epistemology. However the analysis of argumentation is an excellent heuristic means for that study. Using this means I have clarified some non-logical types of "inferences"<sup>5</sup>.

Argumentation can be found in argumentative dialogues: First, one tries to convince the other by means of an argumentation, then the other tries to convince the first by means of another argumentation for a counter-thesis; or he criticizes the arguments of the first; or from the beginning both try cooperatively to develop an argumentation which both regard as valid and adequate . . . But in all these cases similar rules of argumentation as the ones mentioned above, which are independent of their use in dialogues, are presupposed already. Of course one can try to eliminate the addressed deficiencies of formal logic by the analysis of argumentative dialogues. But it remains the aim of this analysis to develop criteria for valid and adequate (monological) argumentation. The use of dialogical material for the analysis only complicates the solution of that task, because argumentation here often is interrupted by turns of the opponent or by initially advanced, but later retracted arguments and because spontane-

ously advanced argumentation isn't so accurate; the argumentation in monological texts, e.g. in books or speeches, is more suitable.

Tu quoque arguments would seem to be a counterexample to my thesis, because they can occur only in dialogues. But they aren't a counterexample, since they aren't valid argumentations, and therefore their analysis doesn't eliminate one of those deficiencies. Consider a simple and well known tu quoque, that of the physician who smokes: Having tried to prove to the patient that smoking is bad, the physician starts smoking a cigarette himself. The patient then objects: "But you smoke yourself!" Tu quoque arguments are only a special case of indicating a (pragmatic) inconsistency: The physician says, "smoking is bad", but his behaviour manifests (or at least seems to manifest) that he believes in the opposite. (Here we can ignore the case that perhaps there isn't an inconsistency, because the doctor only has stated that smoking is bad for *health* or for the *patient*, but not that it is bad in all regards or for all persons.) If there really is an inconsistency at least the physician's belief or his statement must be false; but from such an inconsistency, it doesn't follow which proposition is false and which, perhaps, is true. Therefore indicating an inconsistency isn't an argument for one of the two theses in question — e.g. that smoking isn't bad. For this reason it isn't a valid argumentation. If the tu quoque is regarded as an argument for the thesis that smoking isn't bad, then it is a fallacious argumentation, because it doesn't show the acceptability of the thesis. The fallacy gets clearer, if we transform the "argumentation" into normal monological form: "Smoking isn't bad, because the physician believes that it isn't bad."

Indicating an inconsistency isn't an argument for a thesis, but a special move in discursive argumentative dialogue. Understood properly, it is a demand to the proponent to retract one of his theses (see below: move C2). The theory of argumentation can only show that indicating an inconsistency as such isn't (a part of) a valid argumentation — here I don't speak of mathematical proofs *ex negatione* (which don't consist only of stating an inconsistency, but also of stating necessary implications of assumptions, and which take for granted every except one assumption of the inconsistent set of assumptions). The analysis of argumentative dialogues has to clarify the sense indicating an inconsistency has in dialogues, and the function argumentative dialogues have themselves.

## 2. METHODS FOR THE PHILOSOPHICAL ANALYSIS OF ARGUMENTATIVE DIALOGUES

There is a wealth of philosophical models for (argumentative) dialogues. Many are game-theoretical in nature. Such a conceptualization is useful in certain respects.

Games are constituted by their rules, which systematically restrict the possible actions of the players, and prescribe aims for their actions. The rules create a separation of the inside, i.e., the world of the game, and the outside, i.e., the world of the unrestricted possibilities of action. Games performed in reality do not only have internal ends — e.g., in chess: to checkmate the opponent — but also external ends — e.g., amusement. (Sometimes internal and external aims are identical, e.g. in a lottery: to gain the highest possible pay-off.) The internal ends belong to the rules of a game. Games performed in reality are constructed precisely in such a way that certain external aims are attained by following the rules — in chess: entertainment, diversion. I call these external aims the (external) practical function of the game. Besides them there are often external aims which are particular to situation — e.g., to demonstrate one's intelligence to another person, or to gain money by winning a game of chess. The expectation that the external aims will be reached, and especially that the game fulfills its practical function, is the motive for the players to enter the game and thus to accept its rules and restrictions to possible actions.

My main critique of the most philosophical dialogue-games can now be given. It is this: In the construction of such models an external practical function isn't taken into account. Of course there are fixed internal ends of the game; but either there isn't any (good) external function, or the rules are constructed in such a way that the only mentioned external function isn't fulfilled in the best manner. Such games, therefore, are useless or impractical; and it is nonsensical to enter those games, to play them. The following objections to two models of dialogue will help substantiate the above charge, but I don't pretend to offer a complete critical discussion of the models. Nor shall I explain all details of criticism in the points I do discuss.

The information-seeking dialogue model of J. Hintikka<sup>6</sup> is constructed inadequately in relation to the practical dimension. In Hintikka's games each of two players must prove his initially stated thesis by means of posing questions in order to elicit additional theses from the other player. The questions have different costs according to the informational content of the answer. The player has to use the elicited theses, together with the original thesis of the other player, as premisses to prove his own conclusion by means of deductive moves (in the sense of the proceedings in the semantical tableau of E. W. Beth). The player who can prove his thesis at the lower costs wins.

If the external aim of these games is only to exchange information, the proofs and deductive moves are superfluous. If the aim is to convince the other player of a certain thesis, however, the roles of both players would not have to be constructed symmetrically. It would only be the task of the second player to answer the questions of the first and to pay attention to his deductive moves. Furthermore the rules don't permit the answer, "I

don't know", which is obviously a problem. Moreover Hintikka's dialogue-games are unsuitable as a model of disputation: A criticism of the answers of the other is excluded. The proof of the own conclusion does not imply that the proponent has to state the premisses himself, as in an argumentation, documenting thereby that he believes those premisses. Hintikka's dialogues thus allow fallacious ad hominem arguments, since they allow the proponent to use premisses accepted by the other which he himself thinks are false. Both sets of premisses together or both initial theses can be evidently inconsistent without having any consequences for the dialogue. Finally, non-logical argumentations aren't permitted.

Dialogical logic developed on the basis of the work of P. Lorenzen is another important example of a defective model of dialogue because of its neglect of the practical function<sup>7</sup>. The aim of dialogical logic is to provide a "pragmatic" foundation for logic by means of a "theory of argumentation". The principal problem with this approach is that its regulations of the *logical connectives* aren't extracted from the rules of everyday or scientific *dialogues* — how should that work? Instead, at first very peculiar rules for *dialogues* are developed — already with an eye to the desired meanings of the connectives — rules from which results the dialogical meaning of the *connectives*. Taken as a "foundation" for logic, this procedure is evidently circular<sup>8</sup>.

As cannot be otherwise expected from such a genesis, the rules of dialogical logic are useless as rules for argumentative dialogues: Why must the proponent and the opponent make moves alternately, why may not the proponent first advance the arguments for his thesis? Why is it forbidden to attack the thesis by simply asserting a well-founded negative counter-thesis, and advancing a substantiation for it — e.g. by using modus tollens — (P: A. O: non-A, because of . . .)? Why may non-A be attacked only by means of a counterthesis A, and not by demanding a substantiation? Why can't neglected possibilities of attack be used later on in a dialectical exchange?

If dialogical logic is meant to provide only operative definitions of the logical connectives, execution of real dialogues is neither necessary nor appropriate. If, for example, the "argumentation" for A & B is so regulated that the opponent must choose exactly one part of the proposition — e.g.: O: A? — , which the proponent now must defend, then a real dialogue with a real opponent is necessary, because he introduces a chance factor beyond the control of the proponent, a chance factor which the proponent cannot produce himself. But precisely this contingency prevents establishing A & B: If the opponent asks for A, and if A is true and defended by the proponent, but B is false, then A & B has to be accepted as true. If such contingencies are excluded by strict rules, so that the proponent must state A and B, as in the classical tableau, by opening a subtableau for A and for B, then the second player is superfluous since a single person can

play the game by taking a sheet of paper and performing the prescribed moves.

The construction of a (externally) meaningful, reasonable dialogue game must begin systematically with fixing the practically founded external function of the game. The second step is the construction of systems of rules which enable this function to be fulfilled. And the third step is the evaluation of these alternative systems of rules, among others with regard to the realization of the function, and to choose the best one. In the real process of research these stages, of course, aren't so clearly or neatly ordered or arranged: The construction of new variants and evaluation of these alternate with each other; the external functions are specified and improved only during the process of construction. And in the representation of results the description of the alternatives is often left out.

The (implicit) final judgement of this research is always evaluative. The main thesis of the results is: The outlined game fulfills the good external function in the best way. But in this method elements of an (idealizing) factual description can be integrated without disturbing the primacy of the evaluation: Real dialogues are a rich fund of important external functions of games and of good systems of rules. In this fund the work of generations is accumulated, and it would be foolish to ignore such a treasure. But since the rules of real dialogues are vague and not reduced to writing, and since violations of the rules and following the rules of a new type of dialogue aren't separated clearly, the rule-guided actions can be described only individually, or statistically, or typified. Philosophically the first two ways of describing make little sense, while the third can contribute to the raising of the treasure, if ideal types are described. That means that one must try to understand rule-guided actions in relation to their aims; and of the possible typifications the one is chosen as ideal which realizes the aim in the best way. Hence evaluations already are integrated in the typifications. Rules won in this way should then be incorporated in the set of alternative systems of rules, systems which have to be constructed according to step two, and in stage three the systems have to be comparatively evaluated.

The following rules of disputations are such idealizing "descriptions". In some disputations they are really observed.

### 3. DISPUTATION: MEANING, AIMS, AND RULES

#### 3.1. *What is a Disputation?*

From among the various types of argumentative dialogues, I have selected the disputation as object of analysis, because from an epistemological point of view, it seems to me to be the most interesting and simplest. The

disputation — in the Latin, scholastic sense of a learned and formal scientific controversial discussion, not in the sense of a verbal quarrel — is a special type of discourse. A discourse (approximately in the sense used by J. Habermas<sup>9</sup>) is a discussion in which the intellectual capacities of the participating persons are coordinated by certain rules of discussion for the cooperative cognitive solution of a problem. This problem is: to find out the acceptability of a bundle of theses. Compared with these specifications the most important restrictions on disputations are: There are precisely two participating parties; the parties discuss controversially. In offensive disputations the second player pleads for a thesis inconsistent with the main thesis of the first player; in defensive disputations the second player only isn't convinced of the main thesis of the proponent and demands a substantiation for it. Argumentation, the demands for substantiation, and critique are the main components of the disputation.

### 3.2. *The External Practical Function of a Disputation*

To arrive at acceptable convictions (if possible true beliefs, otherwise verisimilar or probably true beliefs) is the aim of actions of knowing and of epistemology. But this aim isn't very simple to operationalize. Of course, one takes all one's convictions as acceptable, otherwise one wouldn't have them. Nevertheless some of them are unacceptable.

Providing a foundation for convictions, therefore, is the first step toward operationalizing that aim. That means that the convictions are won in an epistemologically standardized way, in a way of (valid) founding (checking by means of criteria for the acceptability); and this way of founding gets stored in addition to the conviction itself (and then is also called: the foundation, the arguments, grounds, motives, justification for the conviction). This storing serves for afterwards being able to distinguish convictions built in a standardized way from other convictions. Furthermore some ways of founding only lead to probable assumptions, and after new evidence for or against the conviction for the alteration of the degree of probability it is important to be able to reconstruct the way of founding. The (stored) foundation can consist of a known procedure by which the conviction at any time can be rechecked; or, if that is impossible, the foundation consists of the knowledge of the essential parts of the procedure by which the conviction was won in the standardized way. Argumentations are ideal guides for arriving at well-founded convictions; and they are ideal forms for storing foundations.

Unfortunately also founded convictions with the probability of 1 too aren't always acceptable, because during the process of providing a foundation errors can slip in. Therefore certifying founded convictions ("certifying" in the original sense of: making (more) certain) is the second step for operationalizing the aim "acceptable convictions". The conviction gets rechecked in a procedure of certification. This means a procedure for

detecting and eliminating errors and for thus reducing the probability of errors in the remaining certified convictions. (Unfortunately there is no procedure of certification surely excluding all errors.) Furthermore the degree of certification gets stored, that means the number and rigour of trials to detect errors.

To reiterate the process of founding (that means to recheck the own convictions) is the simplest procedure of certification. Some important types of error thus cannot be detected: those caused by ignorance of rules, by lacking factual knowledge (e.g., if according to the rules of valid founding "all relevant facts" have to be taken into account) or by psychological distortions. Intersubjective critique is a more effective though more expensive procedure of certification. The simplest form of such critiques is: The proponent states a thesis T, and the opponent answers with "yes" or "no". But if in the latter case the proponent doesn't detect an error, he can only repeat his thesis, "but, of course, T" and the proponent perhaps answers, "but, of course, non-T". These fruitless repetitions get broken, and the possibilities of certification are meliorated, (1) if the proponent lays open his foundation of T, so that the opponent can exactly specify the (pretended) error in the proponent's foundation of T, (2) and if the opponent substantiates his own statement. The exposure of the foundation facilitates the critique to the opponent. And to specify and substantiate the assertion of the error enables the proponent to check directly the (pretended) error.

Precisely this is done in discourse and disputation. Hence they are a prominent procedure of certification. Discourse and disputation don't differ in this regard; the latter are only a little bit restricted in their formal possibilities, therefore they are more easily described. — That discourse shall be a procedure of certification, perhaps, at first sounds a little bit strange. But if there weren't any possibilities of making mistakes in the procedure of founding, there wouldn't be any discourse, but only argumentation: After an argumentation the addressee would be convinced of the thesis, or he would beg for an argumentation for at least one of the arguments. But he would never criticize the thesis or one of the arguments.

Of course not all discourses guide to the certification of the initial thesis T and its foundation, especially, not in the case that the opponent has found an error. The certification of the proponent's conviction of T is only one possible external output, therefore it isn't the function of disputations. These are the possible external outputs of disputations: 1. a new conviction that T; 2. a new foundation of T; 3. the certification of T and of its foundation; 4. a new conviction that non-T; 5. a new foundation of non-T; 6. the certification of non-T and of its foundation; 7. a new conviction that T actually is undecidable; 8. a new foundation of the conviction 7; 9. the certification of the conviction 7 and of its foundation. The outputs 2 to 5 and 7 to 9 can occur to the proponent, the outputs 1, 2 and 4 to 9 to the opponent. The output of a disputation depends on its inputs: of the truth

or falseness of T, and of the knowledge and the capacity of the participants to criticize.

Cooperatively checking the thesis and its foundation is the general external function of disputation. Whereas the consensus on the question, if T or non-T, and on the appropriate foundation is the internal end of disputation. For this consensus means that despite the intensive concerted search for errors, no (more) errors have been detected. As long as there is a dissent, at least one of the theses or of the advanced foundations must be false.

### 3.3. *The Rules of Disputation*

Unfortunately the rules of disputation are a little bit complicated. For instance, I found no less than 30 (!) different types of moves. Therefore in the following only the important rules are outlined. So many types of moves?! That is suspicious! Maybe. I have tried to reduce that number: For instance a great part of the moves could simply be described as "assertion" or "statement". But doing so masks their special function in disputation: different (types of) assertions in part have very different types of obligatory predecessors or successors. I think, on the contrary, that conventional models for argumentative dialogues are too less differentiated in this regard for being able to grasp the complexity of real disputations.

Disputations can be defined (partly) by means of the following specifications: (I) the players; (II) the possible moves; (III) the rules for the sequence of the moves; and (IV) the internal aims and ends of the game.

#### I. THE PLAYERS

There are two players.

#### II. THE POSSIBLE MOVES

##### *Group A: The Argumentative Core of Disputation*

According to the above given explanation, disputation must contain argumentation. For these are needed the following moves:

- A1** One player claims a thesis.  
The thesis can be a factual judgement or a value-judgement. Some other moves contain the move of "claiming a thesis", e.g. the most moves "advancing an argument" (a complete list of these moves can be found below as R1a, among the rules of sequence). With the claiming of a thesis a subdisputation gets opened. — The first claiming a thesis is called "proponent 1", the second claiming a thesis is called "proponent 2", and so on;

the other player respectively is called "opponent 1", "opponent 2", and so on; so proponent 2 must be identical with proponent 1 or with opponent 1.

- A2** A proponent advances (a part of) a first level argumentation for his thesis.

The theory of argumentation regulates what is a valid and adequate argumentation of the first level (see the above cited rules for logical argumentations and Lumer 1989). Argumentations at higher levels are argumentations for an argument of a lower leveled argumentation, so that the old argument now gets the thesis. — The claiming of the pertinent thesis (A1) must precede the advancing of arguments (A2). Then, in any case, the argumentation must consist of the arguments and the indicator of argumentation; but the thesis can also be repeated. In real disputations the parts of an argumentation are often dispersed over several turns of the proponent. In these cases the move is called: "advancing a part of a . . . argumentation . . ." — In every argumentation it is implicitly claimed (i) that and what rules of argumentation are fulfilled by this argumentation, and (ii) that argumentations which observe these rules fulfill the function of argumentations: to demonstrate that the thesis in question is acceptable. I call these two (sets of) assertions the "(implicit) meta-arguments for the thesis". — All arguments themselves are theses except for the fundamental value judgements in practical argumentations and except for the subjective arguments in genesis of knowledge argumentations (these are argumentations in which the arguer describes how he himself has won the knowledge about the thesis) — e.g. "I observed at the time  $t_1$  at the place p that there was an F", "at the time  $t_2$  informant i uttered: that at  $t_1$  a was F." Normally the indicator of argumentation isn't a thesis too, but it does only express that the arguer believes in the mentioned meta-arguments.

- A3** A proponent makes explicit an implicit meta-argument for his thesis.

The following two moves indeed aren't parts of an argumentation. But they extend the possibilities of argumentation and, therefore, they belong to the group of the argumentative moves.

- A4** A proponent refers to an external (i.e. outside of the disputation) evidence for his thesis.  
Examples: "You can read that in that and that passage"; "what I have stated is an always observable effect"; "the object at which you can check my assertion is at that and that place"; "Mr. M,

present at that time too, can confirm my observation." The proponents can refer to external evidence for theses, the facts of which can be directly observed under appropriate circumstances, which aren't fulfilled in the disputation. In the reference these circumstances are specified: "... at such and such place ...". The disputation may be interrupted for the direct proof. — The special type of theses for which external evidences are quoted often can also be substantiated by genesis of knowledge argumentations: The verification of the thesis and the tradition of this knowledge from the informant to the arguer gets described<sup>10</sup>. Genesis of knowledge argumentation makes possible a minimum of checking the thesis, but it is a very weak argumentation, which admits only a probabilistic inference based on implicit probabilistic premisses of the following type: "How probable is it that the arguer doesn't lie, that he remembers well ...?" Genesis of knowledge argumentations, furthermore, are asymmetric: Being rational the addressee must adjudge a lower probability to the thesis than the arguer, because the latter at least knows, if he himself is truthful. Genesis of knowledge argumentation and references to an external evidence, therefore, are good supplements one for the other.

- A5** A proponent establishes a definition. Definitions may be established only, if they are used for substantiating a thesis. But establishing a definition isn't yet a part of an argumentation. Only the analytical propositions quoted or inferred from such establishments can be used as arguments. — Definitions must fulfill the rules for definitions. With the establishing of definitions the proponent implicitly claims (by calling it a "definition") that the definition fulfills the rules of definitions. For reasons of simplicity I call these assertions "(implicit) meta-arguments for the analytical propositions" quoted from the definition (and not: for the definition itself). These implicit meta-arguments may also get made explicit (see A3). If the definition is incorrect, the (implicit) meta-arguments are false too, and so the derived analytical propositions.

*Group B: Enlargement of the Argumentation to Simple Argumentative Dialogues: Dialogical Adaptation and Correction of the Argumentation*

The A-moves only allow monological argumentation of a proponent. Such argumentation can "miss" the addressee, they can be inadequate: The proponent advances too many arguments, arguments which were already known as such by the addressee; or the former doesn't advance enough

arguments: The addressee doesn't accept some arguments which the proponent assumes to be known. The simple dialogues here allow a direct feed-back and with this a pragmatic adaptation of the argumentation to the state of knowledge of the addressee. In order to reach this aim the following moves of the opponent are needed. (On this level of the dialogue, indeed, there isn't an opponent, but only a critical addressee. However I call him "opponent" anticipating the following enlargements of the dialogue.)

- B1** The opponent agrees to  
 (a) the thesis,  
 (b) an implicit meta-argument,  
 (c) the whole argumentation of the proponent.  
 As already mentioned the most arguments are theses too. Agreeing to an argument A as argument for the thesis T means to agree (1) to the argument as thesis — "yes, A is true" (B1a) — and to agree (2) to the appertaining implicit meta-arguments — abridged, "yes, if A is true, A is an argument for T" (B1b). Implicit meta-arguments, of course, are theses too. But we need to distinguish between B1a and B1b, because B1a refers to an already explicitly asserted thesis, and B1b only to an implicit one, so that a simple "yes" isn't enough. — B1c is only an abbreviation for agreeing to T, to all first level arguments as theses, and to all implicit meta-arguments.
- B2** An opponent demands a substantiation for the proponent's thesis. Substantiations may be demanded for all theses, also for all arguments being theses at the same time; but not all arguments are theses (see A2).
- B3** An opponent demands the explication of a proponent's implicit meta-argument. In real disputations this is often done in the form of a question: "What has A to do with the thesis T?", "why should A be an argument for T?"

Demands for substantiation are the first events in a dialogue which can motivate the proponent to a revision of his opinion. For being able to express this change the following moves are needed.

- B4** A proponent retracts his thesis. To retract a thesis  $T_1$  means: not to claim it any longer, to declare his own former conviction as unfounded, and to declare that one doesn't know a substantiation for  $T_1$  or non- $T_1$ , that one doesn't know, if  $T_1$  or non- $T_1$ . This does not mean that there is no (possible) substantiation for  $T_1$  or non- $T_1$ . — If

the retracted thesis  $T_1$  in the proponent's argumentation was a necessary (meta-)argument for another thesis  $T_2$  now either he must provide an argumentative substitute for  $T_1$  or in the next move he must retract  $T_2$  too.

**B5** A proponent passes after the opponent's demand of substantiation for the proponent's thesis.

In this case the proponent must retract his thesis too with the next move.

*Group C: Enlargement of the Simple Argumentative Dialogue to the Disputation: the Opponent's Attacks*

In the simple argumentative dialogue the opponent has no means to point out to the proponent errors of his thesis or his argumentation; the opponent may only demand further substantiation. Therefore, as a systematic effect of the simple dialogue, the proponent can only detect that his thesis is unfounded, but not that it is false. Only the moves of attacking allow the opponent to criticize offensively by pointing well-aimed to errors.

All moves of attacking contain the claiming of a thesis, so that the opponent now gets a proponent too. As such he is permitted to advance argumentations himself, thus (perhaps) proving his statement about the error, and disproving and defeating the proponent's thesis. (In the simple dialogues agreeing to the proponent's thesis (B1) was the only possibility for the opponent to claim a thesis. But also in complete disputations it isn't possible to argue for shared theses.) Only the permission to open a subdisputation creates the parity of means. That the opponent can point to errors and must substantiate this statement only constitutes an effective (cooperative) checking of theses and foundations. Therefore only the incorporation of possible moves of attacking can provide a stronger certification of the proponent's convictions.

**C1** The opponent claims a counterthesis  $T_c$  to the proponent's thesis  $T_1$ .

To reply, "no" is the simplest manner of doing that. Countertheses must be inconsistent with but not always contradictory to the proponent's pertinent thesis. If both theses only are contrary to each other (that means inconsistent to each other, but not contradictory), by claiming his counterthesis  $T_c$  the opponent — at least implicitly — claims also the thesis that non- $T_1$ . Furthermore by claiming  $T_c$  he claims — at least implicitly — that  $T_1$  and  $T_c$  are inconsistent with each other. For reasons of simplicity again I call the latter statement on the inconsistency an "(implicit) meta-argument for the thesis non-

$T_1$ ". Then the proponent of  $T_1$  may demand the explication of this implicit statement on inconsistency by means of move B3.

**C2** The opponent states an inconsistency in the proponent's set of theses.

In real disputations also external (of the disputation) utterances of the proponent are sometimes used as basis for the statement of inconsistency. In a regulated disputation such utterances should be (re-)introduced as an explicit thesis of the proponent (e.g. by an opponent's question, if the proponent maintains the thesis such and such; see move D7). — If the proponent agrees to the statement of inconsistency, he must declare as false at least one of his theses (see C5).

**C3** The opponent states the (actual) undecidability of the proponent's thesis.

Stating the actual undecidability means to claim that neither the proponent nor the opponent knows a valid substantiation either for the thesis  $T_1$  itself or for a counterthesis and that such a substantiation actually can't be found. If the opponent thinks that the thesis is unfounded and, furthermore, false (that means: according to his opinion  $T_1$  is — negatively — decidable), then he must claim a counterthesis. Because statements of undecidability are negative existence-propositions and because it takes some doing to substantiate them, the proponent first should advance the argumentation for his thesis, before the opponent opens his argumentation for the statement of undecidability.

**C4** The opponent utters that the proponent's argumentation hasn't yet convinced him.

Such utterances in real disputations often can be met as introductions to the claiming of a counterthesis or to the demand of substantiation. Strictly speaking in these cases they are superfluous, because already the next move expresses again that the opponent isn't convinced. In our disputation the utterance of not being convicted as an independent move is only admitted after such arguments which aren't theses (see above A2). In all the other cases of not being convicted it is possible to continue the concerted analysis; and the opponent, therefore, should answer with moves making possible this continuation: demanding a substantiation for the argument, or claiming a counterthesis. — An independent utterance of not being convicted contains a request (and not a demand as in the case of move B2) to the proponent to advance a better argumentation, if possible, or to refer to an external evidence.



The moves of attacking can systematically convince the proponent of the falseness of his thesis. Of course the rules of disputations should give him the possibility to communicate this conversion for preventing further unnecessary efforts:

- C5** A proponent admits that his thesis is false.  
This implies that the proponent now claims that his former thesis  $T_1$  is false and that non- $T_1$  is true.

*Group D: Communicative Enlargements of the Disputation*

The essential moves for a cooperative argumentative examination in a disputation are already elaborated with the moves A1 to C5. The moves of group D serve only for eliminating communicative "disturbances".

The aim of the first subgroup is to remove lacks of understanding.

- D1** One player asks a question about the semantical meaning of a preceding utterance.
- D2** One player explains semantically parts of a preceding utterance.
- D3** The opponent claims that the proponent's thesis is semantically nonsensical.  
This, of course, is a severe critique of the thesis. But because the proponent's tentatives to defend the thesis can consist only in semantic explanations, the move "claiming that a thesis is nonsensical" belongs to group D. If it isn't clear what it does mean that  $T$  is true, a disputation on the truth of  $T$  isn't possible.
- D4** The opponent asks a question about the argumentative meaning of a preceding move.  
There are several possible aims of such questions: that the proponent completes an elliptic argumentation, that he explicates a metaphorical argument (which in a strict disputation shouldn't be admitted) . . .
- D5** One player requests a specification of a question to the meaning.

A standstill of the disputation can be finished by the moves of the following subgroup; the other player is kept to make a move.

- D6** A proponent encourages the opponent to comment upon the proponent's thesis.
- D7** The opponent asks, if the proponent still maintains his thesis. This move especially is made after an opponent's counterargumentation (a counterargumentation against  $T_1$  can be an argumentation for a counterthesis  $T_c$  or for a thesis  $T_{ca}$ , which is inconsistent with one of the (meta-)arguments  $T_a$  for  $T_1$ ). D7

also implies an encouragement to the proponent to give his opinion: either to retract the thesis, or to admit its falseness, or to criticize the counterargumentation.

- D8** One player encourages the other to ask a question to the meaning.

The rules of disputations don't regulate a definite sequence of the moves; for instance, it isn't fixed, if first the argumentation for the thesis or first that for the counterthesis should be advanced. Furthermore the rules of the game are so complicated that they might be violated. The third subgroup of the communicative moves, therefore, serves for coordinating, explaining, or prescribing the continuation of the disputation.

- D9** One player proposes first to carry out the subdisputation on  $T_1$  before that on  $T_2$ .
- D10** The other player agrees to proposal D9.
- D11** The other player refuses proposal D9.  
Who refuses a proposal D9 in the following move has to propose an alternative proceeding.
- D12** The proponent defers the fulfilment of a demand of substantiation for his thesis.  
Deferring is only permitted for that time during which subdisputation hasn't been finished or other demands of substantiation haven't been fulfilled.
- D13** One player announces that one will break off the disputation.
- D14** One player points to violations of the rules of disputation.  
The player quotes the rule which has been violated by the other and thereby exhorts him to make a correct move.

The following move helps against problems of remembrance and of acoustic understanding.

- D15** One player requests the repetition of a move from the other.

### III. RULES OF SEQUENCE OF THE MOVES IN A DISPUTATION

The following rules only refer to the moves A1 to C5; they determine the main line of the sequence. The moves D1 to D15 only insert loops into this main line: At the end of the loop the main line is continued in that way which should have been taken before the beginning of the loop. For instance in the loop can be cleared the meaning of a just claimed thesis; then after the loop the move has to be made provided by the rules for the main line as successor of claiming a thesis: the comment of the opponent upon the thesis.

- R1** Rules of implication: moves by which, at the same time, is performed another move.
- (a) A thesis is claimed (A1) also by the following moves: to advance an argument (A2; A1 contains A2 only in the most cases; the restrictions are specified above under A2); to make explicit a meta-argument (A3); to agree to a thesis, a meta-argument, or an argumentation (B1); to claim a counterthesis (C1); to state the inconsistency in a set of theses (C2); to claim the undecidability of a thesis (C3); to admit the falseness of a thesis (C5).
- (b) A substantiation for a thesis is demanded (B2) also by: claiming a counterthesis (C1), claiming the undecidability (C3).
- (c) If a counterthesis  $T_c$  to a thesis  $T_1$  is claimed the claiming of the initial thesis  $T_1$  (A1) also counts as claiming a counterthesis (C1) to  $T_c$  (and according to R1b in this case with  $T_1$  is also demanded a substantiation for  $T_c$ ).
- (d) If the opponent agrees to the proponent's thesis  $T_1$  the initial claiming of  $T_1$  (A1) also counts as agreement (B1) to the thesis claimed by the opponent's agreement. If the opponent has claimed the contradictory counterthesis non- $T_1$  to the proponent's thesis  $T_1$ , to admit the falseness of  $T_1$  (C5) also means to agree to non- $T_1$  (B1) (and vice versa according to R1c).

Forbidden moves:

- R2** Disturbing utterances.  
Only the moves A1 to C5 (and D1 to D15) are admitted in a disputation. Every other utterance disturbs in the sense that it interrupts the disputation.
- R3** Prohibition of repetition.  
A move may be repeated only in the following exceptional cases: After a longer interruption the last moves before this interruption may be repeated. In a ramified argumentation (with sub-argumentations for the arguments of the main argumentation) at the beginning of a new branch it is allowed to recapitulate the appertaining thesis. A proponent may repeat his thesis if he has at least two times changed his opinion on it.

Mandatory regulations for the sequence:

- R4** Obligation of truthfulness.  
Theses may be claimed and arguments advanced, only if the proponent believes in their acceptability; and all the other moves may be performed, only if the disputator thinks that

their prescribed preconditions are fulfilled. Since the set theses and arguments normally express a permanent subjective situation, the obligation of truthfulness implies that all relevant and not evident alterations of the beliefs and attitudes must be communicated at once. That means for instance that the proponent in such a case must retract his thesis or admit its falseness. This rule takes priority over all the other rules of sequence (see already the last exception of R3).

- R5** Initial move.  
The first move of a disputation must be of the type "claiming a thesis" (A1).
- R6** Obligation to comment.  
In every case that (i) a thesis is claimed, (ii) an implicit meta-argument, (iii) or an argument which isn't a thesis is advanced the opponent must give exactly one comment upon it. (That shall not exclude that the comment implies another type of comment or that, after some further moves, is given a different comment.)
- i. The possible comments upon a thesis  $T_1$  are:
- (a) The opponent claims the inconsistency of the proponent's set of theses (C2), if he believes to be capable to substantiate the statement that the hitherto existing set of the proponent's theses gets inconsistent by adding  $T_1$  to it. The claiming of inconsistencies has priority over every other comment. That means that no other comment may be given, if the claiming of an inconsistency is possible. If the proponent, after the opponent's claiming an inconsistency, admits the falseness of a *formerly* claimed thesis (i.e. another one as  $T_1$ ), or if the opponent — after a subdisputation on his stating the inconsistency — admits the falseness of *that claim*, the opponent must once more give his comment upon  $T_1$ .
- (b) The opponent agrees to  $T_1$  (B1a), if he believes in  $T_1$  and knows a substantiation for it.
- (c) The opponent demands a substantiation for  $T_1$  (B2), if he doesn't know a substantiation either for  $T_1$ , or for non- $T_1$ , or for the assumption that  $T_1$  is actually undecidable.
- (d) The opponent claims a counterthesis (C1), if he knows a substantiation for non- $T_1$ .
- (e) The opponent states the undecidability (C3), if he knows a substantiation for this statement.
- ii. The possible opponent's comments upon implicit meta-arguments are: agreeing to them (B1b) or to demand their explication (B3).

iii. The comments upon arguments which aren't theses actually aim at the appertaining thesis once again: The opponent agrees to the thesis (B1a), or he utters that he hasn't yet been convinced (C4).

iv. Simplification: The agreement also may be expressed by not giving an explicit comment.

**R7** Obligation to substantiate.

After the respective demands, the proponent is obliged to substantiate his thesis (A2) resp. to make explicit an implicit meta-argument (A3). If the proponent cannot substantiate the thesis, he must pass (B5).

**R8** Rules of consistency.

- (a) If the proponent passes after a demand of substantiation (B5), he must retract his thesis (B4).
- (b) If the proponent retracts a thesis  $T_1$  (B4) or if he admits its falseness (C5), and if  $T_1$  in his argumentation was a necessary (meta-)argument for his thesis  $T_2$ , then the proponent must provide an argumentative substitute for  $T_1$  (A2) or retract  $T_2$  too (B4).
- (c) If the proponent of  $T_1$  agrees to a counterthesis  $T_c$  and to the respective (implicit) statement that  $T_c$  and  $T_1$  are inconsistent (see C1), then he must admit the falseness of his thesis  $T_1$  (C5).
- (d) If the proponent of  $T_1$  agrees to a counterthesis  $T_c$ , he must claim a counterthesis  $T_{c_i}$  to the (implicit) statement  $T_i$  that  $T_1$  and  $T_c$  are inconsistent with each other (C1), or he must admit the falseness of  $T_1$  (C5).
- (e) If the proponent of  $T_1$  agrees to the (implicit) statement  $T_i$  that  $T_1$  and  $T_c$  are inconsistent with each other, he must claim the contradictory counterthesis "non- $T_c$ " to  $T_c$  (C1) (this is not necessary, if  $T_1$  and  $T_c$  already are contradictory to each other), or he must admit the falseness of  $T_1$ .
- (f) If the proponent agrees to the statement that his set of theses is inconsistent he must admit the falseness of at least one of his theses (C5).
- (g) If the proponent agrees to the respective statement of undecidability he must retract his thesis (B4).
- (h) If the opponent agrees to every (meta-)argument for a thesis, then he must also agree to the thesis itself (B1a). This rule isn't to apply to genesis of knowledge argumentations, which have a different value of substantiation for the proponent and the opponent. In this case the opponent should alternatively agree (B1a) or utter that he hasn't yet been convinced (C4).

- (j) The moves C1 to C3 are moves of attack (in a broader sense also C4). These attacks have failed in the following cases: C1: (i) The opponent admits the falseness of his counterthesis  $T_c$ , or (ii) of the (implicit) statement  $T_i$  of inconsistency of his counterthesis  $T_c$  and the thesis  $T_1$  itself, or (iii) he retracts  $T_c$  or  $T_i$ . C2: The opponent admits the falseness of his stating the inconsistency of the proponent's set of theses, or he retracts this statement. C3: The opponent admits that his statement on the undecidability is false. — If an attack has failed the opponent must give a new comment upon the thesis, particularly, he now may agree to the thesis.

These rules don't regulate a determined sequence of the disputation. They are so flexible, in order to allow that important arguments are discussed first, or that arguments only afterwards coming into one of the disputator's mind still may be advanced. For not unnecessarily restricting this flexibility too much, and for, on the other hand, not making the disputation too chaotic or tangled, the following rule of sequence is only a recommendation.

**R9** Closed subdisputations.

Before opening a new subdisputation first the actual subdisputation should be finished.

I think the following rules are the most important ones for fulfilling the external function of disputations: The obligation of comment (R6), together with the obligation of truthfulness (R4) guarantees a permanent and founded criticism; and the obligation to substantiate (R7) discloses the foundation of a thesis and makes possible a pointed critique.

#### IV. THE INTERNAL AIM AND THE ENDS OF A DISPUTATION

The internal aim of disputation is to reach at a consensus on the initial thesis and, if an argumentation for this thesis has been advanced, to reach a consensus on the merits of the appertaining argumentation. If this aim is attained the disputation is closely finished. But this aim not always can be reached by argumentative means. To avoid the circumstance that a disputation is broken off on the false assumption that the aim of disputation cannot be attained we must define exactly whether the means for reaching the aim of a disputation have been exhausted; in this case the disputation is openly finished.

A subdisputation of a disputation is opened by every claim of a new thesis; this doesn't count for the contradictory counterthesis non- $T$  to an already claimed thesis  $T$ ; both belong to the same subdisputation (on  $T$ ).

An exhaustive disputation is finished if every subdisputation having been opened in it is finished. A thrifty disputation is finished if the subdisputation on the initial thesis is finished.

A subdisputation on  $T_1$  is finished in the following cases:

- SE1 The subdisputation is closedly finished if the opponent immediately agrees to  $T_1$ , hence if there is a consensus on  $T_1$  already from the beginning.
- SE2 The subdisputation is closedly finished if there is a consensus on the truth or falseness of  $T_1$  and if every subdisputation on necessary arguments for  $T_1$  is closedly finished.
- SE3 The subdisputation is openly finished if there is a consensus that  $T_1$  actually is undecidable.
- SE4 The subdisputation is openly finished if there is a dissent on  $T_1$  (that means: the proponent considers  $T_1$  as true, and the opponent thinks that it is false or he isn't convinced of  $T_1$ .) and a consensus on the question that  $T_1$  actually cannot be substantiated in the same degree for both parties. This case can occur after genesis of knowledge argumentations.
- SE5 The subdisputation is openly finished if the proponent retracts  $T_1$  before the opponent has attacked it.
- SE6 The subdisputation is openly finished if the subdisputations on at least one necessary argument for  $T_1$  and for non- $T_1$  are openly finished.

In every other case the clarifying of the question if  $T_1$  or non- $T_1$  can be continued in the disputation. If this isn't done the disputation is broken off.

### 3.4. Outlook: Enlargement of the Disputation to a Free Discourse

Disputations have some limits precluding an optimal checking of theses and their foundations. The most important limits are the fixations of the opposition of both parties and of the number of two participants. In a free discourse these limits are abolished.

If the opponent immediately agrees to a thesis the respective subdisputation is already finished; neither the proponent, nor the opponent advances his argumentation for the thesis. Yet it is possible that both argumentations differ and that by comparing them an error, perhaps the falseness of the thesis, will be detected. In a free discourse, therefore, the "opponent" may demand a substantiation for a thesis which he himself thinks to be well-founded (cf. R6c). Thus it is possible to have an — harmonical — discourse on theses accepted by both players.

If the proponent retracts his thesis before an opponent's attack against

it, nobody in the disputation does claim  $T_1$  or non- $T_1$  any more; and for a thesis which nobody does claim in a disputation an argumentation cannot be demanded or executed. Indeed in such cases neither the (ex-)proponent, nor the (ex-)opponent does know an argumentation for  $T_1$  or non- $T_1$ , but perhaps it would have been possible to find such an argumentation by cooperatively seeking it and to decide  $T_1$ . This is tried in hypothetical discourses on possible theses. In these discourses a new set of moves is needed: hypothetically claiming a thesis, hypothetically advancing possible arguments for a hypothesis, advancing a (negative) meta-argument for a hypothetical argument (still more new moves?).

Four eyes observe more than two do, two opponents perhaps detect more errors than one does. With the increasing number of participants of a discourse, of course, the problems of coordination are aggravated too and they must be stemmed by additional standing orders. That means: still more rules, and rules . . . , and no end is in sight!

### NOTES

- <sup>1</sup> Walton (1985) affords a short description and critique of some new models.
- <sup>2</sup> For a more detailed analysis of argumentations see: Lumer 1989.
- <sup>3</sup> For rules of non-logical argumentations see: Lumer 1989, 4.4 to 4.6 and 6.
- <sup>4</sup> Cf. Hamblin 1970, 235—240.
- <sup>5</sup> See Lumer 1989.
- <sup>6</sup> Here I discuss the version of Hintikka 1984. In this article can also be found more references. Hintikka/Leopold 1982 is a little divergent predecessor of Hintikka 1984.
- <sup>7</sup> For some literature and critique see: Stekeler-Weithofer 1985.
- <sup>8</sup> See Stekeler-Weithofer 1985, 46—48.
- <sup>9</sup> Habermas 1973, 214 and Habermas 1981, I, 70 f. This reference to Habermas doesn't mean that I agree to his discursive theory of truth.
- <sup>10</sup> For more on genesis of knowledge argumentation see: Lumer 1989, section 4.5.

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