

## Rules for Epistemically Oriented Argumentative Dialogues

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**ABSTRACT:** In the current argumentation-theoretical discussion, no attention is paid to truly epistemically oriented dialogues that serve the cooperative and argumentative search for truth—called "discourses". The paper attempts to fill this gap. (1) After a precise determination of the desired conditions for discourses (epistemic goal, effectiveness, cooperativeness, argumentativeness, efficiency) (2) the game 'Disputation' (Lumer 1988) is presented and shown to fulfil these conditions, (3) while other discourse systems from the literature fall short of the conditions.

**KEYWORDS:** aims of discourses, cooperative dialogues, cooperative search for truth, disputation, doxastic conditions, effectiveness, epistemically oriented argumentative dialogues, increasing degree of certainty, rationally justified consensus, sequence rules

### 1. INTRODUCTION

This paper is about normative rules for cooperative argumentative dialogues with epistemic goals: the participants jointly try to settle an issue in an epistemically correct way by argumentative means. They do this (i) because they disagree and want to find out the truth, or (ii) because one of them wants to know exactly the position (including the justification) of the other, or (iii) because neither of them yet has a firm opinion on the question, but they want to inquire what the correct answer to the question is (one of them can then tentatively argue a weakly justified thesis, and both examine together whether this thesis can be upheld or how it can be improved), or (iv) because one of them wants to make sure whether her rationally justified belief will stand up to intersubjective criticism, etc. Such cooperative, epistemically oriented dialogues are relevant and possible in many contexts: political, scientific, legal, criminological, economic etc., when a group comes together to clarify a question cooperatively epistemically and by argumentative means.

The conditions of the type of conversation, at issue here, are thus more precisely:

1. They are dialogues, i.e. conversations between at least two people.
2. The rules for these dialogues are initially thematically open and open in terms of the type of thesis, they are therefore not domain-specific.
3. The dialogues are epistemically oriented; and good rules for such epistemic orientation are sought. This means more precisely:
  - 3.1 Epistemic goal: The goal (more precisely: the standard output (Lumer, 1990, pp. 30-43; 2005a, pp. 219- 220)) of dialogues is epistemic, namely to find out the truth.
  - 3.2. Epistemic effectiveness: The dialogue rules should maximally support the achievement of the epistemic goal, i.e. be helpful means.
  - 3.3. Cooperativeness: The common goal of the dialogue partners is to find out the truth; individual profiling or missionary goals or the like are subordinated to the

cooperative search for truth. 3.4. Argumentativity: An epistemically oriented dialogue can also solely collect information. Here however, we are dealing with the purely argumentative part of epistemically oriented dialogues, i.e. when at least hypotheses are already available, the truth of which may be disputed, or at least is not obvious, and which must be jointly examined and possibly revised. If one understands inquiry in the everyday language sense, the dialogue meant here is therefore the final phase of an inquiry. 4. Efficiency: The search for truth in dialogue should be resource-saving. – Conversations that try to fulfil these conditions are here neutrally called "(argumentative) discourses".

In argumentation theory there are various, more or less elaborated normative models of argumentative dialogues, but only a few systematic comparisons of such models. The aim of this paper is to make such a comparison in order to identify the most suitable model for the objectives just mentioned and possibly to propose improvements.

I will 1. first describe the epistemic goal in more detail and look at the types of argumentative dialogues discussed in present argumentation theory, 2. subsequently present the model of the most epistemically oriented dialogue model, namely the model "Disputation" developed by me, 3. then discuss some alternative approaches.

## 2. THE GOAL OF EPISTEMICALLY ORIENTED ARGUMENTATIVE DIALOGUES AND A TYPOLOGY OF ARGUMENTATIVE DIALOGUES

Epistemically oriented arguments serve to guide an addressee in rationally recognising the thesis and thus to pass on rationally justified acceptable beliefs as such intersubjectively (Lumer, 2005b, p. 190). In doing so, they also disclose the arguer's reasons for her thesis for possible criticism. Epistemically oriented argumentative discussions, i.e. discourses, go beyond this goal. In them the participants bring their epistemic abilities to bear for the cooperative search for acceptable theses together with the respective argumentative justifications, which are finally accepted (as rationally justified and acceptable) by all participants in the discourse.

Walton & Krabbe (1995, pp. 65-85, overview: p. 66; with subtypes: Walton, 1998. p. 30) have developed a much-cited classification of mostly argumentative dialogues. Their dialogue types, which are closest to the epistemic orientation just described, are the following:

1. Persuasion dialogues on the individual level serve to convince the other, and on the collective level they serve to resolve a difference of opinion.
3. Inquiry is about increasing knowledge and finding proofs.
4. Deliberation serves to find a collectively binding decision.

According to the description, inquiry is closest to epistemically oriented argumentative dialogues. After all, the goal is that all participants agree with a thesis at the end (Walton & Krabbe, 1995, p. 73). However, according to Walton & Krabbe, this is to be achieved primarily by incorporating Persuasion dialogues into Inquiry (ibid.). Furthermore, according to Walton and Krabbe, Inquiry differs from Persuasion dialogues primarily only in that the participants do not yet hold a thesis at the beginning (ibid. 72). Inquiry thus moves very close to Persuasion dialogues—which, as will soon be shown, are anything but

epistemically oriented. Anyway, Walton and Krabbe do not analyse Inquiry further or provide rules for it.

Deliberation, which Walton and Krabbe also do not go into further, but for which Hitchcock et al. (2001; similar: McBurney et al., 2007) have developed a model, serves above all to find a mutually accepted means for which practical arguments can then be made. According to Walton and Krabbe, these argumentations are (parts of) special persuasion dialogues (1995, p. 73).

What is striking about Walton's and Krabbe's typology, according to what has been said so far, is that no models for truly epistemically oriented argumentative dialogues have been developed along the line they have sketched.

Models for (in part epistemically oriented) argumentative discussions that do not follow the typology of Walton and Krabbe are developed by Hamblin (1970, pp. 253-282), Alexy (1978a; 1978b)—in the spirit of Habermas—, by Goldman (1999) and by myself (the latter is called "Disputation" (Lumer, 1988)). Of these three systems, Disputation is by far the most elaborated and will therefore be presented in more detail next. The following discussions always concentrate on the actual dialogical part of the models; thus, what they say about the rules for arguments in the narrower sense is ignored here. Rather, it is assumed that the respective dialogue model is supplemented by the epistemically best criteria for good arguments.

### 3. DISPUTATIONS AS A SPECIAL TYPE OF EPISTEMICALLY ORIENTED ARGUMENTATIVE DIALOGUES

#### 3.1 External and internal goals of disputations

Disputation (Lumer, 1988; 1991) is a normative discourse model with game rules for a strictly epistemically oriented cooperative argumentative discourse between two persons. The model distinguishes between internal and external goals of a game. The internal goals—e.g. in chess, to checkmate the opponent—are defined by the rules of the game. The rules of the game as a whole, which also include the internal goals, should be designed in such a way that by playing the game external goals that are good in the life world are achieved; in chess, for example, this is an intellectually demanding entertainment of the two players.

The Disputation model starts from the assumption that we can also achieve many epistemic goals that we commonly associate with argumentative dialogues (i) privately, for ourselves through cognition, or (ii) monologically through argumentations that one addresses to another without the latter commenting further, namely the goals (i) rationally justified cognition of acceptable theses or (ii) the transmission of justified cognitions as such to someone else. The following circumstances, however, make an extension of these private or monologic possibilities necessary: 1. We can err in the application of rules of cognition, in particular commit errors which we cannot discover so easily by repeating the process of cognition. 2. Most of our cognitions are uncertain and therefore defeasible by new information. 3. Some of our insights, e.g. value judgments, summarise all the relevant detailed cognitions on a particular topic, but there is no systematic epistemic path to all of these detailed cognitions, it is only true that with an increased database and improved

possibilities to search it, or improved possibilities to combine these data creatively, more relevant detailed cognitions tend to be found. – In all three cases, the involvement of appropriate others can reduce these problems: 1. The additional control by a second person not only of the final thesis, but above all of the path of cognition to it, presented in the form of an argument, can help to recognise errors of justification. 2. The introduction of information unknown to oneself by others can reveal actually existing undercutters, but also, conversely, reveal that a discussion partner has the information for a stronger justification of one's own thesis. 3. Cooperative brainstorming tends to increase creativity and yield in the search for relevant facts; especially for practical arguments, it can reveal new interesting options for action or further relevant consequences of value objects.

The involvement of others can thus help, for one thing, to correct false beliefs and replace them with true ones on the same topic. For another, if an epistemically correct argumentative consensus is eventually reached, it leads in each case, i.e. if the initial insight has been corrected or if it has been confirmed, 1. to a stronger (rational) justification of the resulting belief and, if the justification has been correctly kept track of, 2. to a higher rational certainty about the resulting thesis. This means: 1. Cognitions are obtained by means of epistemologically distinguished ways of acquiring beliefs. I call the way to the belief the "objective justification" of the belief. If this justification meets epistemological standards, then the objective justification is (epistemically) rational. The memory of the central steps of this acquisition of belief or the knowledge of a key to these central steps (e.g. the memory of where a certain proof is carried out or an empirical piece of information is noted) is what I call the "subjective justification" for the belief in question (Lumer, 1990, pp. 34-35; 2005a, p. 215). Justifications vary in strength; they are stronger the more they increase the tendency for the resulting belief to be true or, put the other way round, the more possible deviations from truth they exclude (Lumer, 2018, pp. 321-326). Some of these possible sources of deviation from truth and corresponding dimensions of justification strength are: JS1: justification strength of the premises, JS2: truthfulness of the justification procedure, JS3: examination intensity and extensity, JS4: yieldingness of the justification material (for the thesis), JS5: correctness (freedom from error) in the application of the reasoning procedure, JS6: metatheoretical certainty about the justification procedure (ibid., pp. 322-324). According to the above, the involvement of others in a cooperative process of truth-finding can increase the strength of justification in all these dimensions, e.g.: The other may know a stronger justification of individual premises (JS1), know a justification with a stronger justification procedure (JS2), search the existing relevant empirical data material elsewhere or more intensively (JS3), contribute new relevant information (JS4), uncover justification errors (JS5), contribute a metatheoretical justification of the applied justification procedure. 2. Epistemologically rational subjects have a sense, an impression (of the degree) of certainty of their beliefs, which permanently keeps track of the justification of the individual opinions and summarises in an estimate their achieved strength of justification. This degree of certainty is rational if it reflects the actual strength of justification. It is then the subjective, epistemic counterpart of the actual, alethic strength of justification, adding to the latter a subjective representation. This sense of certainty is important in order to be able to deal rationally with our opinions; it helps us, for example, to assess how much we should rely on a particular belief or how necessary a stronger justification would be.<sup>1</sup>

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<sup>1</sup> I thank Harvey Siegel for extensively and helpfully discussing this topic with me.

Following these explanations, it can now be expressed understandably and precisely what the specific game-external goal, the standard output of disputations is: If the disputation participants have disclosed the justifications of the final theses of the disputation and subjected them to a comprehensive critique and, possibly after necessary corrections, finally see no more critical points in them—which implies that they have reached a consensus on the theses and their justifications—then (EG1:) possible previous wrong opinions of the disputation participants have been corrected and (EG2:) their rational certainty about the resulting thesis (theses) has been increased. In addition, a less specific external goal is (EG3:) the broadening of the information of the individual participants in the dispute. The associated internal goal of the game is: in the presence of comprehensive epistemic criticism possibilities, after appropriate critiques and corrections, (GI:) to arrive at shared rational justifications for shared theses that answer the questions of the disputation.

### 3.2 Cooperativeness in disputations – rules referring to the opinions of the disputation participants

Disputations are strictly cooperative. There is nominally a proponent and an opponent. But these fulfil the functions of critique and information provision in a highly cooperative manner. The rules state that if the participants have pertinent knowledge, i.e. see critical points, know criticisms, have relevant information, they must bring these into the disputation. The game-internal goal of reaching a consensus on arguments, i.e. to develop a shared, hence—this is explicitly demanded in the rules—believed by both, argument for a shared thesis, is also to be understood cooperatively: One must oneself be prepared to correct one's own beliefs and support the other in epistemically overcoming gaps in knowledge and false beliefs. This reference to states of belief is essential for disputations. For if I know pertinent things but do not say them, that is not maximally cooperative. And if I assert something but do not believe it myself or even consider it to be false, then the assertion has not survived my own critical assessment but is for the moment obsolete. Its serious assertion is then not a constructive but a disruptive contribution that causes the other person to have to deal with misleading or unfounded opinions that do not deserve this discussion for the moment. Conversely, discourses whose rules do not refer to states of belief cannot produce epistemically good or even optimal cooperation, because they cannot demand that the participants in the discourse contribute their knowledge that serves the goal of cooperation to the maximum. If they prescribe certain moves at all, they can only prescribe sterile mechanical moves (e.g.: 'If the opponent asserts  $\neg p$   $q$ , then the proponent subsequently asserts  $p$ ') or moves with alethic conditions (e.g.: 'if  $p$  is true, then assert  $p$ ') that overstrain the participants, i.e. cannot be generally followed.

### 3.3 The rules of disputations

The rules of Disputation are designed to achieve the game's external goal, the standard output, as effectively and efficiently as possible. These rules already include the game-internal goal of reaching a consensus on the thesis and its justification; when this goal is

achieved, the disputation is finished. But in order to achieve also the external goal with this internal goal, the disputation is regulated in such a way that the internal goal can only be achieved after disclosure of the reasons for the thesis and comprehensive, in turn justified possibilities for criticism of them.

In order to achieve maximum effectiveness in such a way that the disputations conducted according to the Disputation rules also lead as often as possible to the desired type of consensus, many aids known from actual discourses are integrated into the rules of Disputation. This leads at first sight to a very high number of move types in relation to other models: 30 in relation to an otherwise maximum of 12.

In order to use these move possibilities optimally, in particular effectively and efficiently, for the external goal of the game, there are also nine rules of sequence (with many sub-items), that prescribe which moves must be followed by which moves (Lumer, 1988, pp. 457-461), and rules which define the end of the disputation (*ibid.*, pp. 461-462). Because of this abundance of rules, only a few particularly important and characteristic ones can be presented below.

Characteristic in a narrower sense and fundamentally distinguishing, namely specifically epistemically oriented, are the already discussed internal goal of the game 'rational consensus on the arguments for the relevant theses' and some already intimated rules of the disputation, above all the rules: "truthfulness" (Lumer, 1988, p. 458: R4), "obligation to comment" (*ibid.*, pp 459-460: R6) and "obligation to justify" (*ibid.*, p. 460: R7). Truthfulness and obligation to comment together imply, for example, that one must communicate all relevant changes in one's opinion—for example, if one has discovered a weakness in one's own argument or thesis or a possibility for improvement of the other's argument or thesis. It is then also permitted to modify one's own thesis. One must agree if one considers the other person's thesis to be true and rationally justified. For theses of the other, which one accepts but for which one does not know a good justification, one must demand a justification. Etc. This also means that one must admit when one sees that one's own position has been relatively well attacked and not, for example, immediately question the counter-argument, assert its irrelevance or falsity (this would violate the truthfulness requirement of assertions) or continually demand justifications for what is actually quite a good argument (this would violate a seriousness requirement of questions or also of requests / petitions: The questioner, supplicant knows / has himself what he is asking for, what he is asking for or to raise long known objections against the position or argument, which, however, in the final effect, as is well known and is also known to the critic, can be rejected, simply in order to gain time and to tire the opponent by the obligation to react to objections that are in the final effect irrelevant (such critical attacks are not false assertions, also not false questions). Revealing the weaknesses of one's own position naturally presupposes trust in the other participants in the dialogue to do the same. The obligation to justify (*ibid.* R7), on the other hand, implies that one must provide justifications precisely when they are requested. This avoids, among other things, superfluous argumentation. Many of these move rules refer in their conditions to the epistemic and doxastic situation of the disputation participants. Only in this way can the disputation optimally exploit their already existing knowledge. The disputation participants, if they know relevant things that the others do not all know, must not hold back with them.

### 3.4 Possible improvements to the Disputation game

35 years after its publication, I would slightly improve this model—apart from the many linguistic errors<sup>2</sup>—as follows.

1. It would have to be stated more clearly that in the Disputation rules, criticisms of reasons or of the inference relation of an argument etc. are always conceived as counter-theses against subordinate theses. This is all implied by the rules, but should be stated explicitly. The same applies to the proponent's duty to react to the opponent's objections: Since these objections are themselves again assertions, i.e. theses, according to R6, a duty to comment also holds for them. This should likewise be explicitly pointed out.

2. Two new general rules should be introduced for the sequence rules R: i. a rule requiring orientation towards the cooperative and epistemic goals of disputations, even beyond the mechanical and literal observance of the other disputation rules, e.g. "The participants in a disputation are required to orient their actions towards the cooperative and epistemic goals of disputations."; ii. a rule about when a disputation is useful and when it should possibly be discontinued, e.g.: "One should begin a disputation only when the conditions for achieving the aims of a disputation are reasonably fulfilled, and break it off when these conditions are no longer fulfilled to a not inconsiderable degree." The latter also comes into play if it turns out that the disputation partner is not sufficiently capable or willing to act cooperatively, for example, seriously violates the disputation rules.

3. As an additional sequence rule Sx, a recommendation should be introduced that in the case of corresponding multiplicity (for reasons of efficiency) stronger reasons and criticisms should be presented before weaker ones (so also: Goldman, 1999, p. 141, R11).

4. A new move type (plus the associated sequence rules) would have to be added: Cx: Criticism of pragmatic fallacies—such as *ignoratio elenchi* or the presentation of an inadequate, too weak argument. (So far, according to the disputation rules, only fallacies that violate argumentation rules can be criticised, but not pragmatic fallacies.) – In addition, the move type of linguistic criticisms D3 should be supplemented by a few more criticisms: D3-new: "The opponent claims that the proponent's thesis is unclear, ambiguous, extremely vague, semantically nonsensical or similar." – Finally, a further pragmatic implication could be included in Rule R1.a, namely that all moves in a disputation imply the assertion that the disputation rules are observed with this move. With this rule, violations of the disputation rules can then also be subjected to a critique with a possible sub-discussion about them, without having to introduce further types of move.

All in all, these are all minor additions and not fundamental revisions of the Disputation. (These additions are designed, among other things, so that with the expanded set of rules, all relevant types of the forms of argumentative criticism listed by Krabbe and van Laar (2011, p. 225) can be raised in disputations.) They reinforce the effectiveness and efficiency of Disputation once again with a view to the goal of cooperatively confirming or improving a thesis with argument or constructing it completely anew and making it more

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<sup>2</sup> The linguistic errors that can contribute most to confusion are probably the following two Germanisms:

1. "Argument" in the 1988 text often has the meaning of 'reason', i.e. it is not meant to designate the ensemble of thesis and premises, but only a premise or, more generally, a reason. 2. "Argumentation" in the 1988 text often has the meaning of 'argument', thus is not meant to designate, for example, the action with which an argument is presented, but the ensemble of thesis and premises.

certain and thus answering a particular question epistemically with maximum rationality and certainty.

#### 4. SOME ALTERNATIVE DIALOGUE GAMES AND THEIR EPISTEMIC VALUE

After this detailed presentation of Disputation, it is time to discuss alternative systems of argumentative dialogues. I divide these dialogue games into three groups with structurally more and more epistemically important facilities / possibilities.

##### 4.1 Argumentative dialogue games containing only permission rules

The best-known system of rules for argumentative dialogue is probably that of Pragma-Dialectics by van Eemeren and Grootendorst. There are several variants of it (in particular: van Eemeren & Grootendorst, 1984, pp. 151-175; 2004, pp. 135-157; detailed critique: Lumer, 2010, pp. 58-62); but these do not differ substantially with respect to the present discussion. According to Pragma-Dialectics, the aim of argumentative dialogues is to resolve a difference of opinion. This goal is not really epistemically oriented because it is ultimately only about an expressed consensus based on consensually agreed rules of argumentation. In the spirit of the policy proposed at the outset, I ignore this—suboptimal—commitment to consensual agreement on rules of argumentation and instead assume that these are simply replaced by a commitment to epistemologically robust criteria for good arguments. The actual dialogue rules of Pragma-Dialectics mainly contain rights to certain types of moves: e.g. the unconditional right to advance and question standpoints (van Eemeren & Grootendorst, 1984, p. 155, R2), the right to challenge the opponent (*ibid.*, p. 158, R4), the right of the antagonist to challenge undefended standpoints

(*ibid.*, p. 171, R13), but also obligations such as that to adhere to the agreed rules of argumentation when giving reasons or the obligation to defend only by arguments and to attack only by questioning (*ibid.*, p. 165, R8). As the last rule shows, not even a critique of an argument by a counter-thesis and its justification is allowed for. In general, there are no rules of sequence and, with the exception of the obligation to give reasons, there are no obligations to intervene. Truthfulness on the part of the dialogue participants is assumed, but explicitly not demanded (*ibid.*, pp. 151-152; 201). The system of rules thus does not provide for any obligations or recommendations to solve epistemic problems cooperatively on the basis of existing knowledge and epistemic abilities—e.g. where you have to query, when you should bring in your knowledge—, but leaves the interventions of the participants to their interest and strategic skill to prove their point of view according to the rules of argumentation. – In sum, the pragma-dialectical rules of discourse simply do not contain good rules for effective epistemic investigation of contentious theses. (A similar critique holds for Alexy's (1978a, pp. 233-257; 1978b) rules.)

In A Framework for Deliberation Dialogues, Hitchcock et al. (2001) address only deliberation, i.e. discussions for decision making. But if one understands deliberation epistemically, then deliberation is a special discourse with the goal of arriving at a common cognition that a certain action is optimal collectively or for all participants. Therefore, it should be possible to derive general rules for epistemically oriented discourses from the rules for deliberation. In fact, however, Hitchcock et al. do not say what would be a good,



especially epistemically good, decision at the end of a deliberation, so that it is also not clear how one should work towards this goal. Furthermore, although Hitchcock et al. define the individual types of moves, they do not provide the actual move rules of the game: Who has to do what and when? It remains unclear how to get to the general confirmation of an action proposal and thereby to the closure of the game. As the title of their paper says, it provides a "framework", more precisely: a semantics of deliberations, but not a normative game description or systematisation.

#### 4.2 Argumentative dialogue games with purely behavioural sequence rules

The first group of models of argumentative dialogue contained no or almost no sequence rules and therefore did not regulate how the participants in an epistemic cooperation purposefully and effectively identify with high probability true theses with strong rational justifications; for this reason alone, these dialogue models are not effective epistemic instruments. The second group of models of argumentative dialogue to be considered here, on the other hand, contains such sequence rules.

Walton and Krabbe (1995, pp. 133-166) explicitly tie in with Pragma-Dialectics; they understand their model of Persuasion Dialogues as a further development of Pragma-Dialectics. The general goal of these dialogues is again to resolve a difference of opinion. The individual goal in each case is to persuade the other or, as it is called afterwards, to "win"—as the proponent, by deriving one's own thesis from the concessions of the opponent or, as the opponent, by inducing the proponent to retract her thesis (*ibid.*, p. 152). A huge difference between the model of Persuasion dialogues and the rules of Pragma-Dialectics for the discussion here is, however, that Walton & Krabbe include precise rules of sequence, e.g.:

S3.c: If the previous move contained a challenge of  $p$ , then the current speaker must provide an argument for  $p$  or retract  $p$ . (*ibid.*, p. 151)

S11.1: If a proponent has advanced an argument  $\{p_1, \dots, p_n\}$  so  $c$  and the opponent has conceded  $p_1, \dots, p_n$  as well as the conclusiveness, then the conclusion  $c$  is also a concession of the opponent. (*ibid.*, p. 152)

Despite the sequence rules, from an epistemic point of view, however, this model of persuasion dialogues is problematic in several respects. The rules of sequence are too rigid. In many cases, repairs are possible in the situations described, especially in response to criticisms of the other. The main problem of the model, however, is that the goal is not epistemic, but for both players individually: to win. Not even real persuasion, i.e. a doxastic state, is the goal; but the goal is to force the other to make a concession, which, as has been seen, can also arise simply as a consequence of preceding moves. This lack of epistemic orientation is already caused by the fact that the conditions of the rules of sequence are formulated only in behavioural terms, such as: 'To a move of type A one must respond with a move of type B'. The epistemic potential of the participants cannot be exploited in this way. Since Persuasion dialogues—contrary to the initial descriptions—are only about winning, even the deeper meaning and the external goal of the game are no longer clear.

Does obtaining a concession that is no longer tied to a corresponding belief still have an external advantage that goes beyond showing the intellectual superiority of the winner?

The one of the dialogue games developed by Hamblin (1970, pp. 253-282, especially pp. 265-267) that is closest to what we are looking for here is more of a rudiment; its aims are not clear; and in any case, it is not epistemically oriented.

#### 4.3 Argumentative dialogue games with sequence rules containing doxastic conditions

Goldman's contribution to the theory of epistemic discourse games is more promising than the games considered so far in this section in that Goldman avoids the two major mistakes of the groups just studied: Goldman provides goal-oriented sequence rules that also refer to the opinions of the dialogue partners in their conditions; and his rules are epistemically and cooperatively oriented.

Goldman (1999, pp. 139-144) has developed rules for argumentative dialogues that are oriented towards the veritist goal of improving opinions and arguments (*ibid.*, pp. 139- 140) and are cooperative; thus, the goal of criticising a thesis or argument is that this criticism benefits the addressee epistemically (*ibid.*, p. 140), precisely via the correction of false views. Goldman's rules provide for the following moves: asserting a thesis and giving reasons for it; criticising an argument: counter-assertions against the thesis, the premises or the inferential relation; withdrawing an assertion. There are still a number of helpful extensions possible here—as shown by the much higher (30) number of move types of Disputation. Some of Goldman's rules contain doxastic conditions: the duty of truthfulness (*ibid.*, p. 134, R1 and R2); the duty to put forward only subjectively justified premises (*ibid.*, p. 134: R3); the duty to communicate a change of opinion and thereupon also to retract corresponding theses (*ibid.*, p. 143, R12). The rules of sequence, however, are quite rudimentary: the just mentioned duties to communicate changes of opinion and to retract theses are part of them, as well as a preference to begin with the strongest reasons and criticisms (*ibid.*, p. 141: R11; p. 143: R13). But already the duties to comment on assertions and arguments and to respond to criticisms are missing. Nor does the theory go deeper into the internal and external goals of argumentative discourse—except for the idea of correcting false opinions and justifications—; and considerations on strengthening justifications through discourse are missing. All in all, therefore, Goldman's rules are a good beginning of an epistemically oriented theory of argumentative discourse, but only a beginning.

## 5. CONCLUSION: DISPUTATION AS THE BEST NORMATIVE MODEL OF EPISTEMICALLY ORIENTED DISCOURSE

To sum up, the critical discussion of alternative rule systems from the literature on the basis of the criterion of whether they fully realise the epistemic potential of discourses shows the following. Because they each lack several instrumentally necessary peculiarities of good discourses (which however are present in Disputation), they do not achieve this goal. Apart from Goldman's rules, the dialogue rules of all the other games discussed are not developed with specifically cooperative and epistemological goals. The disputation model, instead, is

oriented towards the goal of maximum epistemic cooperation; and its detailed move rules and general rules of conduct are designed to achieve this goal effectively and efficiently. It is thus currently the best normative model of epistemically oriented discourse.

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## REFERENCES

- Alexy, R. (1978a). *Eine Theorie der juristischen Argumentation. Die Theorie des rationalen Diskurses als Theorie der juristischen Begründung*. Frankfurt, Main: Suhrkamp. – Engl. transl.: *A Theory of Legal Argumentation. The Theory of Rational Discourse as Theory of Legal Justification*. (Translated by Ruth Adler and Neil MacCormick.) Oxford: Oxford University Press. 1989; 2010.
- Alexy, R. (1978b). *Eine Theorie des praktischen Diskurses*. In W. Oelmüller (Ed.), *Normenbegründung, Normendurchsetzung* (pp. 22-58). Paderborn: Schöningh.
- Eemeren, F. H. van, & Grootendorst, R. (1984). *Speech Acts in Argumentative Discussions. A Theoretical Model for the Analysis of Discussions Directed towards Solving Conflicts of Opinion*. Dordrecht; Cinnaminson: Foris.
- Eemeren, F. H. van, & Grootendorst, R. (2004). *A Systematic Theory of Argumentation. The pragma-dialectical approach*. Cambridge: Cambridge U.P.
- Goldman, A. I. (1999). *Knowledge in a Social World*. Oxford: Clarendon. Hamblin, C. L. (1970). *Fallacies*. London: Methuen.
- Hitchcock, D., McBurney, P., & Parsons S. (2001). *A Framework for Deliberation Dialogues*. In H. V. Hansen et al. (Eds.), *Argument and Its Applications. Proceedings of the Fourth Biennial Conference of the Ontario Society for the Study of Argumentation (OSSA 2001): 1-19*. Compact Disk. Web, URL = <https://scholar.uwindsor.ca/cgi/viewcontent.cgi?article=1642&context=ossaarchive>.
- Krabbe, E. C. W., & Laar J. A. van (2011). *The Ways of Criticism*. *Argumentation*, 25, 199-227.
- Lumer, C. (1988). *The Disputation. A Special Type of Cooperative Argumentative Dialogue*. *Argumentation*, 2, 441-464.
- Lumer, C. (1990). *Praktische Argumentationstheorie. Theoretische Grundlagen, praktische Begründung und Regeln wichtiger Argumentationsarten*. Braunschweig: Vieweg.
- (1991). *Argumentative Dialoge. Eine philosophische Rekonstruktion von Disputationen*. In: S. Stati, E. Weigand & F. Hundsnurscher (Eds.). *Dialoganalyse III. Referate der 3. Arbeitstagung Bologna 1990. Teil 1* (pp. 353-367). Tübingen: Niemeyer.
- (2005a). *The Epistemological Theory of Argument – How and Why?* *Informal Logic*, 25, 213-243.
- (2005b). *The Epistemological Approach to Argumentation – A Map*. *Informal Logic*, 25, 189-212.
- (2010). *Pragma-Dialectics and the Function of Argumentation*. *Argumentation*, 24, 41-69.
- (2018). *Strength of Justification – The Rational Degree of Certainty Approach*. In: S. Oswald; D. Maillat (Eds.), *Argumentation and Inference. Proceedings of the 2nd European Conference on Argumentation, Fribourg 2017* (pp. 315-333). London: College Publications.
- McBurney, P., Hitchcock, D., & Parsons, S. (2007). *The eightfold way of deliberation dialogue*. *International Journal of Intelligent Systems*, 22.1, 95-132.
- Walton, D. N. (1998). *The New Dialectic. Conversational Contexts of Argument*. Toronto; Buffalo; London: University of Toronto Press; 2019.
- Walton, D. N., & Krabbe, E. C. W. (1995). *Commitment in Dialogue. Basic Concepts of Interpersonal Reasoning*. Albany; New York: SUNY Press.