The Role of Quasi-Logical Arguments in Critical Dialogue: A Pragma-Dialectical Redefinition

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Abstract: The article focuses on the New Rhetoric concept of quasi-logical arguments imitating logical or mathematical demonstrations, and examines it from the point of view of pragma-dialectics as a device contributing towards an effective resolving differences of opinion. It is shown that the category of quasi-logical arguments cannot be considered as a legitimate argument scheme or a united type of strategic maneuvering. It is suggested to consider the category of quasi-logical arguments as a class of specific strategic maneuvers increasing the efficiency of arguments under certain circumstances. This approach is demonstrated in the case study of the pragma-dialectical analysis of the quasi-logical scheme of probability.

Résumé: L'article se concentre sur le concept tiré de la *Nouvelle rhétorique* des arguments quasi-logiques qui imitent des démonstrations logiques ou mathématiques et l'examine du point de vue de la pragma-dialectique comme un moyen de résoudre efficacement les divergences d'opinion. On montre que la catégorie des arguments quasi-logiques ne peut pas être considérée comme un schème légitime d'argument ou comme un type de manœuvre stratégique uni. Il est suggéré de prendre en considération la catégorie des arguments quasi-logiques comme une classe de manœuvres stratégiques spécifiques qui augmentent l'efficacité des arguments dans certaines circonstances. Une étude de cas de l'analyse pragma-dialectique du schéme quasi-logique de probabilité illustre cette approche.

1. Introduction

It is common to consider persuasion as constructed through argumentation. But there are ways to present argumentation more or less successfully in regard to a particular audience. According to the New Rhetoric, an argumentation theory which was introduced in 1958 by Chaim Perelman and Lucie Olbrechts-Tyteca, the speakers trying to convince their audience, or their oppo-

nents often design their arguments, in such ways as to resemble logical or mathematical demonstrations. They called these arguments *quasi-logical arguments* and conceived the imitation of logical and mathematical relations as one of the possible sources of the effectiveness of arguments. Quasi-logical arguments, according to them, "lay claim to a certain power of conviction, in the degree that they claim to be similar to the formal reasoning of logic or mathematics." (1969, p. 193)

The New Rhetoric serves modern argumentation theorists as a source of inspiration and an object of critical reflection in many areas (for an overview see van Eemeren 2009, van Eemeren et al. 2014, pp. 284-289). For some authors the New Rhetoric is especially an inventory of rhetorical techniques, whose research is worthy of attention. According to Johnstone in the New Rhetoric "there are myriads of rhetorical techniques that they [Perelman and Olbrechts-Tyteca] seem to have noticed for the first time." (Johnstone 1978, p. 102) Kienpointner points out that the potential of the New Rhetoric has still not been exhausted, and recent approaches could still benefit from Perelman and Olbrechts-Tyteca's typology (cf. Kienpointner 1993, p. 420). According to van Eemeren: "Perelman offers, together with Olbrechts-Tyteca, an overview of the elements that play a part in the process of convincing or persuading an audience. Rather than for immediate application, Perelman's new rhetoric lends itself for stimulating further reflection on the phenomena that are being analyzed." (van Eemeren 2009, p. 124)

Although there is evident interest in the New Rhetoric, it is quite surprising that the claim of the effectiveness of quasi-logical arguments stands outside the attention of modern theorists of argumentation: it is neither developed nor significantly criticized. The authors dealing with these quasi-logical arguments problematize neither the claim of the effectiveness nor its explanation (see Warnick and Kline 1992, Dearin 1982, Haynes 1981, p. 221). However, if the quasi-logical form of argumentation really is a strategy contributing to the effect on an audience, it should be in the interest of the theorists of argumentation to identify and analyze what the techniques are from their point of view and how these techniques can contribute to the acceptance of the standpoint.

In this text we consider the category of quasi-logical arguments as a means of effective persuasion from the point of view of the pragma-dialectical approach. Pragma-dialectics is a normative theory that conceives of discussion as a process oriented to resolving the difference of opinion through what is called critical dialogue which needs to fulfill certain criteria of rationality. However, the pragma-dialectical approach offers

also tools for research of the effectiveness of particular argumentative steps in dialogue. This text aims to answer two main questions: can the similarity of arguments with logical or mathematical demonstrations contribute to an effective resolution of a conflict of opinions? And if it can, how does it do so?

In the following part of the paper, the New Rhetoric concept of quasi-logical arguments is first introduced (section 2); it is conceived of as a relationship between quasi-logical arguments and the relevant concepts of pragma-dialectics (section 2.1), namely, the argument scheme and strategic maneuvering. The reasons quasi-logical arguments cannot be simply subsumed under one of those concepts are demonstrated (sections 2.2, 2.3). We suggest considering the similarity of arguments with logical and mathematical principles from a pragma-dialectical point of view, not as a unique argument scheme/strategy, but rather, as a symptom of different strategies that can (under certain circumstances) contribute to the effective solution of a difference of opinion.

If one wants to describe the effectiveness of quasi-logical arguments from the point of view of pragma-dialectics, it is necessary to focus on the function of the quasi-logical elements in the arguments with regard to the effective solution of a conflict of opinion, based on the following questions: what type of technique is the quasi-logical element? How is it used to have the desired effect? The results of this approach are presented in a case study of the quasi-logical use of probability (section 3). The New Rhetoric concept of this scheme is first introduced (section 3.1). Subsequently, pragma-dialectical analysis of its illustrations shows that we can consider Perelman's probability scheme as a strategy of specifically designing a pragmatic argument that serves to strengthen the argument against doubts regarding the causal element of the argument (section 3.2).

2. Quasi-logical arguments in the New Rhetoric model

In their famous book *The New Rhetoric: A Treatise on Argumentation,* Perelman and Olbrechts-Tyteca present a model of argumentation focused on the "study of the discursive techniques allowing us *to induce or to increase the mind's adherence to the theses presented for its assent*." (1969, p. 4, italics in the original) The audience became the central concept of their approach; their research objective was an analysis of the ways in which it is possible to bring the audience to the acceptance of a thesis. In the analysis of the empirical material they had gathered over a decade, they noticed an interesting phenomenon:

that the presentation of arguments in such a way as to resemble logical or mathematical principles is a relatively common feature of arguments, and therefore it seems to be a rhetorically effective form of argument presentation. Perelman and Olbrechts-Tyteca called these arguments thus formulated quasi-logical arguments, and they conceived of the quasi-logical form of reasoning as a specific argumentative scheme,[1] which may be used by speakers in the formulation of an argument if they want to make the audience accept a standpoint (1969, p. 193).

It should be noted that the New Rhetoric is tied to the so-called anthropological concept of reasonableness. This means that the soundness of the argument is always related to an audience and is equated with effectiveness (see Perelman and Olbrechts-Tyteca 1969, p. 1; van Eemeren and Grootendorst 1988, p. 277). The authors do not distinguish whether the quasi-logical form of argument is a rhetorical or a rational device of persuasion: the quasi-logical arguments are sound/effective if they are accepted by an audience.

The effectiveness of quasi-logical arguments is, according to them, based on two assumptions:

(I) the recognisability of the logical/mathematical principle that is imitated by an argument
(II) the inherent persuasiveness of the logical/mathematical principle for listeners

According to Perelman and Olbrechts-Tyteca, when the listener recognizes a logical or a mathematical principle in a quasi-logical argument, then this may be one of the reasons that will lead him/her to the acceptance of the standpoint. This is because mathematical and logical demonstrations enjoy a high status in our culture, and that status is transferred to the arguments that are only their imitations (see 1969, p. 193, Warnick and Kline 1992, p. 6; van Eemeren et al. 1996, p. 107, 2014, p. 272).

While the fulfillment of the second assumption is, according to the New Rhetoric, secured by the culture of the audience and irrespective of the intentions of the speaker, the fulfillment of the first assumption is the responsibility of the speaker completely. It is the speaker's job to present the argument in such a way as to make the listener recognize this principle: if there is recognition on the part of the listener, the consequent effectiveness of the argument thus presented is secured due to the high

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[1] It should be noted that the concept of "argument scheme" is probably much broader in the New Rhetoric in comparison with other contemporary argumentation theories, and includes more argumentation phenomena (see Rigotti and Morasso 2010, p. 491).

status of logic and mathematics (see Perelman and Olbrechts-Tyteca 1969, p. 193-194; Dearin 1982, p. 85).

Perelman and Olbrechts-Tyteca divided quasi-logical arguments into two groups according to the type of principle that they imitate: quasi-*logical* and quasi-*mathematical* arguments. These groups include different sub-types depending on the particular logical or mathematical principle they imitate:
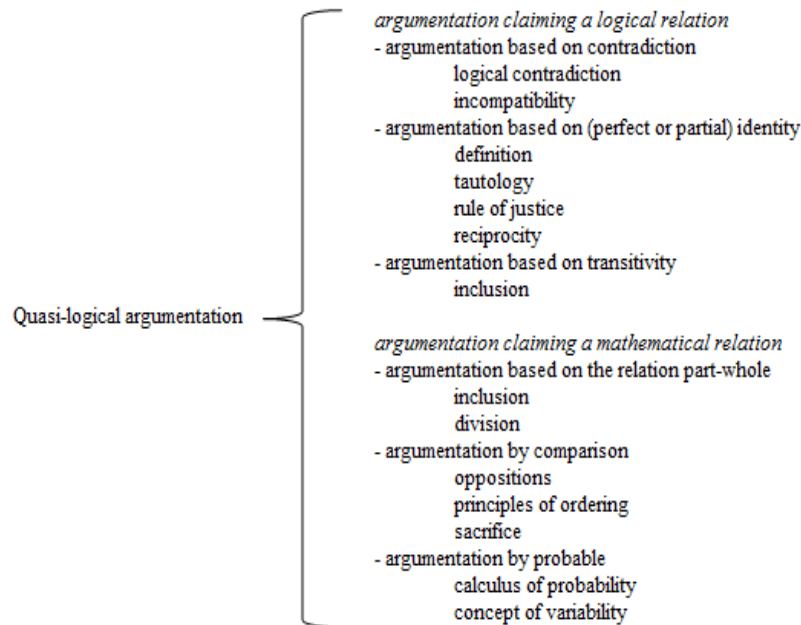

Fig. 1 Quasi-logical argumentation
(taken from van Eemeren et al. 2014, p. 273)

Perelman and Olbrechts-Tyteca stress that quasi-logical arguments are neither a logical nor a mathematical demonstration but arguments formulated in natural language in such a way that they—structurally or by the choice of vocabulary—resemble logical or mathematical demonstration (see 1969, p. 194). Examples include argumentation based on incompatibility, which the speaker uses to highlight the incompatibility of an opponent's starting points and which resembles the propositional logical law of contradiction; or an argument based on the part-whole relation, which refers to the principle that the whole is greater than the part, the principle which is known in mathematics as one of Euclid's axioms.

2.1 The role of quasi-logical arguments in a critical dialogue

Pragma-dialectics, an argumentation theory developed by Frans H. van Eemeren and his colleagues in Amsterdam, introduces a view of argumentation which is motivated by a specific idea of discussion as a critical discussion aimed at resolving difference of opinion. It only considers solutions that are carried out in conformity with certain criteria of rationality to be intellectually satisfactory solutions of conflicts of opinion. Not every dialogue, in their view, meets the demands of critical dialogue, and not every step in the discussion can be considered relevant to the solution of a conflict of opinion:

> For disputes to be resolved in a manner which is intellectually satisfactory, an exchange of views must take place between the interlocutors in the form of a discussion. […]. In an argumentative discussion the participants try to convince one another of the acceptability or unacceptability of the expressed opinion under discussion by means of argumentative statements. These are designed to justify or refute an expressed opinion to the listener's satisfaction. By advancing argumentative statements the interlocutors indicate their intention jointly to find a resolution of the dispute. In arguing they demonstrate their belief that the acceptability of expressed opinions does not depend on prejudices, traditions and uncontrolled emotions but on rational justifications and refutations. (van Eemeren and Grootendorst 1984, p. 2.)

In pragma-dialectics, a difference of opinion is reconstructed as a model of critical dialogue which involves four stages during which the conflict of opinions is identified, the roles are chosen (the protagonist commits to the defence of a standpoint and the antagonist to test it critically) and common (material and procedural) starting points in the discussion are negotiated, arguments are put forward and finally valuated (see van Eemeren and Grootendorst 2004). For this model, the authors define a set of rules that must be observed at the different stages to avoid argumentative mistakes (fallacies) that lead to the thwarting of the resolution of the difference of opinions (see van Eemeren et al. 1996, pp. 283-284).

During the 1990s, the theoretical background of pragma-dialectics was extended somewhat, namely the concept of the aim of an argumentation: the speakers in the dialogue indeed attempted to resolve the difference of opinion as is claimed by the standard pragma-dialectics, but they also, perhaps even more importantly, wanted to resolve this difference effectively in their

own favor. Within pragma-dialectics, the rhetorical dimension of resolving a difference of opinion was thus considered: it is possible to use certain rhetorical devices to enhance the persuasiveness of the arguments, while at the same time these devices must avoid any violations of the rules of critical dialogue. Within such an extended view, the authors elaborate the concept of strategic maneuvering which is treated as a continuous effort of both parties in the dialogue to balance rhetorical efficiency with the standards of critical discussion. The authors identify three aspects of strategic maneuvering which may aim at the realization of the rhetorical objective: a topical potential, i.e., the use of the most appropriate arguments or argument schemes, the selecting of a responsive adaptation to the audience demands, and the use of appropriate presentation devices (see van Eemeren 2010, pp. 93-96).

It should be therefore noted that pragma-dialectics is, in contrary to the New Rhetoric, tied to the critical model of reasonableness. It distinguishes between soundness and effectiveness. The soundness of an argument is primarily dependent on whether it is submitted in accordance with the rules of critical discussion and whether it can succeed in the procedure of critical testing conducted in accordance with these rules. The effectiveness of an argument can be taken into account in connection with the strategic maneuvering, however, a rhetorical strengthening of argumentation cannot "derail" the boundaries that are set out by the rules of critical discussion (see van Eemeren 2010).

The issue of the role of quasi-logical arguments in the critical dialogue entails answering the question whether it is possible to reconstruct similarity with logical or mathematical principles as somehow contributing to the solution of a conflict of opinion. Bearing in mind that the New Rhetoric conceives of quasi-logical arguments as (a) *an argument scheme* that (b) *increases the efficiency of the argument in front of an audience* (Perelman and Olbrechts-Tyteca 1969, p. 193), it seems reasonable to examine the extent to which the category of quasi-logical arguments may be understood by using the related terms elaborated by pragma-dialectics. Two concepts appear to be suitable candidates in this respect: (a) the argument scheme and (b) the type of strategic maneuvering.

2.2 *The Pragma-dialectical concept of argument scheme*

Perelman and Olbrechts-Tyteca designate quasi-logical arguments as "argument scheme" and adopt them into their typology of argument schemes. The question arises whether the

assimilation of arguments into logical or mathematical principles can be an argument scheme as it is envisaged by pragma-dialectics.

Pragma-dialectics constructs its concept of the argument scheme with respect to the dialectical objective: it is specifically interested in the possibility of evaluating to what extent an argument contributes to the solving of a difference of opinion. The argumentation scheme is conceived of as "a representation of the pragmatic principle of support that is used when in the argumentation a reason is advanced for accepting a standpoint" (van Eemeren and Garssen 2009, p. xvi) or a "more or less conventionalized way of representing the relation between what is stated in the argument and what is in the standpoint." (van Eemeren and Grootendorst 1992, p. 96) It is therefore a general representation of the specific justifying relation between an argument and standpoint. An argument scheme has three components: a standpoint, an argument, and a specific argument principle that transfers the acceptability of the argument to the standpoint, which has not been accepted yet:
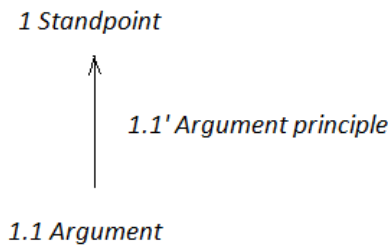
1 Standpoint

1.1' Argument principle

1.1 Argument

Fig. 2 Pragma-dialectical argument scheme

Pragma-dialectics generally distinguishes three main types of argument schemes, according to the way in which argument schemes can be evaluated.[2] Each argument scheme refers to a specific argument principle and is associated with a specific set of critical questions that enable the evaluation of whether an argument is actually contributing to the solution of a conflict of opinion (cf. Garssen 2002, p. 91).

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[2] Symptomatic argumentation is based on the typical characteristics of a particular group, person, or situation expressed in the argument. In the causal argumentation the standpoint is defended by stating the causal connection between phenomena that are expressed in the argument and standpoint. In the analogy argumentation the similarity between the elements expressed in the standpoint and argument is used (see van Eemeren et al. 2007, pp. 137, 154, 164).

2.2.1   Quasi-logical   arguments   as   a   pragma-dialectical argument scheme?

The method of the construction of the concept of an argument scheme in the New Rhetoric is different compared to pragma-dialectics. The typology of argument schemes introduced by Perelman and Olbrechts-Tyteca is empirically based. The typology was preceded by a decade of data collection during which the authors collected specific cases of arguments from political, legal, philosophical, moral and everyday discourse (see Perelman and Olbrechts-Tyteca 1969, p. 10; Perelman 1979, p. 9). They then subjected the data to analysis, whose initial motive was to conduct "an extensive inquiry into the manner in which the most diverse authors in all fields do in fact reason about values" (Perelman 1979, p. 9).

The process by which Perelman and Olbrechts-Tyteca established their unique typology of argument schemes can be understood as a kind of comparative analysis which, based on the comparison of a large number of cases, attempts to generalize. Having compared a large number of arguments, Perelman and Olbrechts-Tyteca identified their conspicuous and repetitive features. They named them argument schemes and defined them as a source of efficiency.[3] The authors' assumption was that the arguments which are found in their sample of data are formulated in such a way that they lead to the persuasion of the audience. They assumed that their samples represented techniques of persuading audiences that had the potential of being effective; otherwise, such arguments would not have been selected or would have been worded differently.

Specifically, in the case of the identification of quasi-logical arguments, Perelman and Olbrechts-Tyteca noticed a conspicuous formal feature: some arguments, although formulated in natural language, reminded them—by their structure or chosen vocabulary—of formal demonstrations. But nothing precludes these arguments from having other striking or conspicuous features that can be related to their persuasiveness. This is probably also the reason why the argument which in the New Rhetoric may be interpreted as a quasi-logical, is also generally interpretable as an argument of a different type (i.e., arguments based on reality or arguments establishing reality in Perelman and Olbrechts-Tyteca's typology), as we can infer from the authors' claim, "[m]oreover, almost every quasi-logical argument

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[3] Van Eemeren et al. (1996, p. 122, fn. 23) point out that the consequence of this kind of creation of typology is that we cannot automatically say that the typology of schemes is exhaustive.

also makes use of other kinds of argument, which to some may seem more important." (Perelman and Olbrechts-Tyteca 1969, p. 194). This can be illustrated by the following scheme:
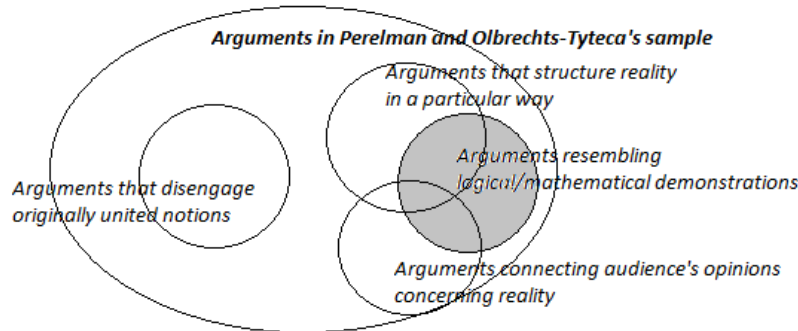

Fig. 3 Typology of New Rhetoric schemes: overlaps of conspicuous characteristics

Perelman and Olbrechts-Tyteca's idea of quasi-logic can therefore be identified with the presence of specific lexical elements (vocabulary choice) or structural elements (specific relations between the elements in an argument) (see 1969, p. 194). The notion of the quasi-logical scheme, as defined in the New Rhetoric, can thus be identified with *a set of linguistic elements that appear in the formulation of the argument*. It is drastically different from the pragma-dialectical concept of "argument scheme" as *a pragmatic relation of support between argument and standpoint*.

Can the category of quasi-logical arguments therefore be conceived of as a specific argument scheme in pragma-dialectics? If we wanted to accommodate the category of quasi-logical arguments as implementing a unique argument scheme, we would have to be capable of identifying a unique pragmatic principle and combining it with the possibility of testing its sustainability through a set of specific critical questions (see Garssen 1998; Cai 2015). It appears, however, that the similarity with logical or mathematical demonstrations which is reducible to the presence of linguistic elements does not pretend to be such a scheme.

It is possible, however, that these structural and lexical elements may figure in an argumentative scheme (in the pragma-dialectical sense). However, this claim cannot be made a priori, it must be preceded by an analysis of a particular argument and specification of the function of the quasi-logical elements in it. Therefore, I propose to consider them provisionally rather in the more general sense as so-called *argumentation*

techniques whose function has not yet been identified (cf. van Eemeren 2010, p. 46, fn. 43).

2.3 Strategic maneuvering in the argumentation stage

For the possibility of an interpretation of the quasi-logical arguments as being strategic maneuvering, we can be guided by the New Rhetoric conception of argumentation as techniques "allowing us *to induce or to increase the mind's adherence to the theses presented for its assent*" (Perelman and Olbrechts-Tyteca 1969, p. 4).

Strategic maneuvering is a theoretical assumption introduced by the pragma-dialectics in order to account for the effectiveness of argumentative discourse (see van Eemeren and Houtlosser 1999, 2000, 2002, van Eemeren 2010). The assumption about strategic maneuvering complements and extends the standard pragma-dialectical theory that is focused on the reasonableness of argumentative discussions (see van Eemeren and Grootendorst 1984, 1992, 2004). Extended pragma-dialectics acknowledges that, when speakers contribute their moves in argumentative discourse, they do not only observe the dialectical standards of reasonableness but simultaneously strive to make the best of what the dialectical situation allows, so that the outcome of the discussion will be favorable for them.

The speakers' strategic maneuvering can be part of every stage of critical dialogue. Specifically, we are interested, with respect to the nature of the material collected by Perelman and Olbrechts-Tyteca, in the protagonist's strategic maneuvering in the argumentation stage of the critical dialogue (see van Eemeren 2010, p. 44).[4]

In the argumentation stage, the protagonist's dialectical objective is to test the argumentation forwarded, while his rhetorical objective is to make the strongest case. That means, that the speaker who plays the role of protagonist is assumed not only to be interested in testing the standpoint when he forwards argumentation in support of it, but also in having the antagonist retract the doubts about it as a result of this testing procedure. According to van Eemeren, the rhetorical objective of the protagonist is to make the strongest defense of a standpoint by articulating those (combinations of) reasons that satisfy the antagonist and continue doing so until no critical doubts remain unan-

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[4] As we can see from the illustrations used by Perelman and Olbrechts-Tyteca, the authors' initial concept of an argument leading to the collection of empirical arguments on which they base their theoretical conception of argumentation corresponds probably to a textual fragment in which a standpoint is supported by a reason that is submitted by a speaker/writer to an audience (see Perelman and Olbrechts-Tyteca 1969, p. 6).

swered "depending on the antagonists' (anticipated) responses and exploiting the argument schemes they consider most effective in the situation at hand" (van Eemeren 2010, p. 44).

The course of the argumentation stage can differ in respect to the doubts raised by the antagonist. Pragma-dialectics distinguishes four types of possible doubts that can be raised by the antagonist in the argumentation stage of dialogue: (1) doubt concerning the standpoint, (2) doubt concerning the propositional content of the argument(s), (3) doubt concerning the justificatory force of the argument(s), and (4) a counterargument.

The protagonist reacting to or awaiting the doubt of a particular type chooses a relevant reaction in respect to the doubt. He can choose from various so-called dialectical routes to deal with this doubt and strengthen his argumentation: (1) remove the doubt concerning the standpoint, (2) remove the doubt concerning the propositional content of the argument(s), (3) remove the doubt concerning the justificatory force of the argument(s) or (4) refute the counterargument (see van Poppel 2013, p. 81).

The dialectical routes represent all the possible protagonist's reactions to any counter-moves made by the antagonist which need to be done in order to achieve the dialectical objective of the argumentation stage. However, this does not mean, according to van Eemeren and Grootendorst, that in every discussion the interlocutors must implement all the represented steps to reasonably resolve a difference of opinion: the protagonist must respond to criticism only if he is challenged to do so by the antagonist (see 1984, p. 160; van Poppel 2013, p. 94). A protagonist maneuvers strategically when choosing arguments and structures them in a way to optimally deal precisely with those objections that are raised by the antagonist. These reactions can be manifested in a richer structure of the argument (coordinative, subordinative or multiple) or in a particular choice of the design of the argument.

To examine whether and how an argumentation technique can be a part of the protagonist's argumentational strategic maneuvering, we should concern ourselves with the identification of its function in respect to the solution of conflict of opinion in favor of the protagonist. That includes the task of identifying the dialectical route of which the argumentation technique is a part (i.e. with what type of antagonist's doubt the protagonist attempts to deal by means of this technique) and to find how the argumentation technique contributes to a successful implementation of this route (i.e., how it helps the protagonist make the antagonist retract his doubts).

2.3.1 Quasi-logical strategic maneuvering?

This concept of argumentational strategic maneuvering thus allows one to capture the specific techniques which contribute to the realization of one of the four routes in the argumentation stage of critical dialogue. Viewed from this perspective, however, neither an assimilation of arguments to logical reasoning or to mathematical demonstration, nor the use of the prestige of logic and mathematics can be considered a relevant expression of the strategy from a pragma-dialectical point of view: it is not clear how they could contribute to the realization of one of the routes leading to the rejection of any of the above-mentioned types of doubts or the counterarguments.

If we still insist, however, in compliance with the New Rhetoric, that the similarity of an argument with logical or mathematical principles contributes in some way to the increasing acceptance of a standpoint, then we must turn our attention to the function of the quasi-logical (lexical and structural) elements in arguments in resolving the conflict of reason. The similarity perhaps captures a symptom of these strategies but does not constitute an adequate explanation of the realized way in which quasi-logical arguments contribute to the effective solution of a difference of opinion.

We should not expect the category of quasi-logical arguments to represent one specific type of technique with the same effect. First, the category of quasi-logical arguments cannot be one type of technique because it is a heterogeneous category: Perelman and Olbrechts-Tyteca distinguish thirteen different variants of assimilation of arguments to formal demonstrations. These thirteen sub-types of quasi-logical arguments have different structural and lexical arrangement of elements because they are imitations of different formal demonstrations. In terms of pragma-dialectics we have no reason to assume that a completely differently arranged arguments will also be implementations of the same type of argumentation step. However, we can submit a hypothesis that individual sub-types of quasi-logical arguments realizing one structural and lexical arrangement of argument could be considered as one type of argumentation technique.

Second, all sub-types included in the category of quasi-logical arguments cannot have the same effect. We should reconsider the uniform effect of quasi-logical arguments from a pragma-dialectical point of view. Pragma-dialectical theory is constructed as an externalized theory, i.e., it refuses to accept any psychologism in the conceptualization of argumentation in order to avoid "unnecessary guesswork about the motives" and

"speculating about what [language users] think or believe" (van Eemeren and Grootendorst 1992, p. 10). According to the principle of externalization, an analyst should leave aside the internal states of the mind of the discussants and begin the investigation from the public commitments arising from language behavior (see van Eemeren and Grootendorst 2004, p. 54). However, the concept of the effectiveness of quasi-logical arguments in the New Rhetoric is based exclusively upon psychological explanation. According to Perelman and Olbrechts-Tyteca, the quasi-logical form of arguments acts on the minds of the listeners in the way that the arguments remind them of formal demonstrations. The identification of arguments with formal demonstrations taking place in the mind of the listeners is dealt in the New Rhetoric as a unified source of acceptance of all types of quasi-logical arguments. If we reject in the pragma-dialectical perspective the adopting of a unifying psychological explanation of the effect of quasi-logical argument, then it follows that there is no reason to expect the same effect of different types of argumentation techniques.

Next, we can infer the support for the heterogeneity of the class of quasi-logical arguments from the way in which Perelman and Olbrechts-Tyteca created their typology. Perelman and Olbrechts-Tyteca collected their cases of arguments across various contexts; the reason for this choice was their attempt at generality (see 1969, p. 6).[5] The consequence of this methodological decision is, however, a sample of arguments that come from different contexts, from different types of difference of opinion, apparently formulated in respect to the different expectations and imagination of the audience and anticipating different types of critical reactions. If, in a sample constructed in this way, one identifies a category of arguments with certain lexical or structural quasi-logical features, one can by no means be sure that this category of arguments performs a uniform strategy.

We suggest, therefore, abandoning, in the pragma-dialectical view, the idea of the category of quasi-logical arguments as those capturing one type of technique with a uniform effect. It is relevant to expect that different sub-types of quasi-logical arguments are completely different types of argumentation techniques, which may be serving completely different functions in dialogue and can be selected by speakers with different expectation of effects. The category of quasi-logical ar-

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[5] Their approach reflects rather the concept of argument-as-product: Perelman and Olbrechts-Tyteca recognize some conspicuous features of these arguments, however, they are not interested in the way how these features can reflect a specific course of dialogue as in the argument-as-process approach (see O'Keefe 1977; van Eemeren and Grootendorst 2004, pp. 1-2).

guments can be considered a heterogeneous class of argumentation techniques, whose character as well as the way in which they can contribute to an effective solution of conflict of opinion can be answered by future research.

Let us now start from the general working definition of quasi-logical arguments as *a set of linguistic elements that appear in the formulation of the argument* (that can be specified based on the descriptions in *The New Rhetoric book* for every sub-type). To be able to identify the techniques from a pragma-dialectical point of view, it is necessary to examine the function of these elements in relation to the effective solution of a conflict of opinion. We therefore propose to re-approach the material collected by Perelman and Olbrechts-Tyteca and undertake a reconstruction with respect to the role of these lexical and structural elements. A redefinition of quasi-logical arguments in the model of the critical dialogue requires a new approach to empirical material with respect to the questions which are relevant to solving differences of opinion, and which are not based on external similarity. Moreover, this approach enables one, in contrast to the New Rhetoric's approach, to identify the conditions of effectiveness of quasi-logic elements (cf. van Eemeren et al. 1996, p. 122).

3. A case study: Quasi-logical use of the concept of variability

In this work we choose a case study research design, which is "the intensive study of a single case where the purpose of that study is—at least in part—to shed light on a larger class of cases (a population)" (Gerring 2007, p. 20). As we have shown in the perspective of pragma-dialectics, quasi-logical arguments should be considered rather as a heterogeneous class of techniques without a uniform type of effect. According to Gerring "under circumstances of extreme case-heterogeneity, the researcher may decide that she is better off focusing on a single case or a small number of relatively homogeneous cases" (2007, p. 51).

The class of quasi-logical arguments, therefore, in this view consists of thirteen different cases, and homogeneity within individual cases is ensured by their unified lexical and structural arrangement. For the purposes of the case study, from the class of quasi-logical argument the case of a quasi-mathematical probability scheme has been picked, specifically the arguments using the concept of variability that is introduced by Perelman

and Olbrechts-Tyteca in §59 of *The New Rhetoric* (1969, pp. 256-257).

The selected case study has illustrative purposes, i.e. in the case of arguments using the concept of variability are illustrated the possibilities of the pragma-dialectical approach to the analysis of quasi-logical arguments in general. It also provides an answer to the research question for one specific case of quasi-logical arguments, and offers a partial response, which can be completed following further research. The case study of the quasi-logical probability scheme has the following structure. First, New Rhetoric general explanation of the effectiveness of this type of arguments is presented, and it is subsequently compared with pragma-dialectical analysis.

New Rhetoric bases the explanation of the effectiveness of this scheme on the prestige of mathematical probability theory and the ensuing efficiency of arguments imitating the calculus of probability.

> The increasing use of statistics and the calculus of probabilities in all areas of scientific research should not make us forget the existence of arguments, which cannot be quantified, based on the reduction of the real to series or collections of beings or events, similar in some ways and different in others. (Perelman and Olbrechts-Tyteca 1969, p. 255.)

The "concept of variability" (see therefore 1969, p. 256; Perelman 1982, pp. 77-78) is a prototypical type of quasi-logical use of probability to which Perelman and Olbrechts-Tyteca pay most attention. It is described as "[…] group of arguments […] based on the concept of variability and on the advantage offered, from that point of view, by a more extensive collection of items" (Perelman and Olbrechts-Tyteca 1969, p. 256). These arguments are, according to Perelman, based on the "idea that the probability of a better choice is increased as the number of solutions between which it is necessary to choose is increased." (Perelman 1982, p. 77)

3.1 The concept of variability as a New Rhetoric argument scheme

Starting with the similarity with a mathematical or logical principle, which is promoted by Perelman and Olbrechts-Tyteca as a key feature of the category of quasi-logical arguments, one can say that the authors noticed a similarity with the elementary principle of probability theory, namely that the probability of a phenomenon increases with the number of favorable phenome-

na. Put very simply, the probability of a phenomenon is calculated as a fraction of the number of favorable outcomes divided by the number of all possible outcomes:

$$P(A) = \frac{A(number\ of\ favorable\ outc\ \ mes)}{\omega(number\ of\ all\ possible\ outcomes)}$$

If the number of favorable phenomena is increased, the probability of a phenomenon is thus also increased. This can be illustrated by the following situation: there are ten lottery tickets and only one wins. The chance of winning (i.e., to get a winning ticket) increases with the number of tickets purchased (i.e., with the increase of favorable outcomes). If we buy nine tickets, our chances are therefore higher than if we buy only one ticket. This relation can be expressed by the following calculation, where P (A) is the chance of winning having purchased only one ticket, and P (B) is the chance of winning having nine tickets:

$$P(A) = \frac{1}{10} = 0.1$$

$$P(B) = \frac{9}{10} = 0.9$$

$$0.9 > 0.1$$

Perelman and Olbrechts-Tyteca identified this simple relation in the arguments from everyday life, in which the calculus of probability is obviously not implemented. It is only possible to identify this relation on the basis of certain structural and lexical guides. In this case, we can generally identify as a structural clue the relation between certain phenomena X and Y whereby one should affect the occurrence of the other. Specific lexical guides can then be tentatively identified in the use of terms such as "the probably increases/decreases" "increases/decreases the chance", etc.

Perelman and Olbrechts-Tyteca illustrated this principle by employing three examples from the area of decision-making in philosophy, politics and in religion.[6] Perelman claims that in all these cases the use of the same principle is realized: "the problem of participation in deliberative assemblies, as well as of religious liberty is reduced to one of its aspects alone, that is to the greater or lesser probability of reaching the desired result." (Perelman 1982, p. 78)

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[6] They are in the following section referred to according to the name of the authors of argument—as the "Phaedrus" case (philosophy), the "Isocrates" case (politics), and the "Locke" case (religion).

3.2 The concept of variability from the perspective of pragma-dialectics: Designing a pragmatic argument

If one refuses to accept the New Rhetoric explanation of the effectiveness based on the striking similarity with a probabilistic calculation, it is then appropriate to ask how (and under what circumstances) these structural and lexical elements can contribute to achieving the dialectical and rhetorical objectives of the argumentation stage of the critical dialogue.

In this section we reconstruct the three examples mentioned by Perelman and Olbrechts-Tyteca as being suitable illustrations of the use of this concept of variability. One can say that in all the examples, the argument scheme of so-called pragmatic argument is realized.[7] In the pragmatic argument, the standpoint recommends a particular plan or policy and this recommendation is supported in the argumentation by pointing to the results of the course of the action. "A reasonable case for the standpoint that the course of action involved is recommendable is made by showing that the course of action automatically leads to a favorable or desirable situation" (Garssen 1997, p. 21; see also van Eemeren et al. 2007, p. 166). The pragmatic argument can be expressed by the following general scheme (see van Poppel 2013, p. 67):

1 Action X should be performed.
      1.1 Action X leads to the desirable consequence Y.
      1.1' (If an action leads to a desirable consequence, then that action should be performed).[8]

This scheme is connected with a set of five critical questions that must be answered satisfactorily. Notice that questions 1-3 are related to the propositional content of an argument, especially to the evaluative and causal element of the argument, and that questions 4-5 are related to its justifying force where they test its sufficiency for the acceptability of the standpoint (see van Poppel 2013, pp. 75-76; Garssen 1997, p. 22; van Eemeren et al. 2007, p. 166):

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[7] Pragmatic argument figures in the pragma-dialectic typology as a sub-scheme of causal argumentation (see van Eemeren et al. 2007, p. 166).
[8] In all the reconstructions the standard pragma-dialectical notation is used, whereby subordinative argumentation corresponds to decimal levels, multiple arguments have different numbers on the same decimal level, coordinative arguments have the same numbers but differing letters, implicit premises are in parentheses, and argument principles are followed by an apostrophe (see van Eemeren and Grootendorst 2004).

1. Is that which is presented in the argumentation as the result, in fact desirable?

2. Does that which is introduced as a cause indeed lead to the mentioned desirable result?

3. Are there any other factors that must be present together with the proposed cause to create the mentioned desirable result?

4. Does the mentioned cause have any undesirable side effects?

5. Could the mentioned result be achieved or prevented by other means as well?

In addition to the fact that all the illustrations realize the scheme of the pragmatic argument, one can identify a common feature in these illustrations: a specific choice of the design of causal link that serves to strengthen the argument against any doubts regarding the causal element of the argument. As we try to demonstrate via argumentative reconstructions, one can consider this type of maneuvering as constitutive for the Perelman and Olbrechts-Tyteca's concept of the quasi-logical use of concept of variability. The illustrations submitted by Perelman and Olbrechts-Tyteca also combine this maneuver with other ways of strategic maneuvering, as is documented by the reconstruction and analysis. One can look at this point from two perspectives: as evidence of a lack of clear illustrations in the *New Rhetoric* book, which is the stance adopted by van Eemeren et al. (1996, p. 123, 2014, p. 291), or as evidence of the combinability of this type of maneuver with other maneuvers realized in an argument.

3.2.1 The "Phaedrus" case

An illustration that Perelman and Olbrechts-Tyteca borrowed from Plato's *Phaedrus* is the simplest example in which we can easily identify lexical guidelines. Phaedrus advises Lysias, who is trying to choose the best friend, to extend the sample from which he selects:

> If you choose the best from among the lovers, you will have to choose from a small number; but if, from among all the others, you choose the one who will be most useful to you, your choice will be from a greater number, and your hope of finding someone worthy of your friendship will therefore be greater. (Perelman and Olbrechts-Tyteca 1969, p. 256.)

Reconstructing this argument as a pragmatic argument according to the above scheme, one gets this reconstruction:

1 Lysias should extend the scope of his selection from lovers to other friends.

 1.1 Extending the scope to other friends increases the hope of finding someone worthy of his friendship.

 (1.1') If extending the scope to other friends increases the hope of finding someone worthy of his friendship, then Lysias should extend the scope to other friends.

According to pragma-dialectics, in argumentative discourse, dealing with anticipated doubts is typically reflected in a branched structure (see Snoeck Henkemans 1997). Phaedrus's argument is here reconstructed as a simple argument, however, van Poppel noticed that a protagonist may deal with certain type of doubts through the specific design of the premises of the argument. According to van Poppel, designing premises appropriately is a strategy by which the protagonist can anticipate any doubts of the antagonist to the propositional content of his/her argument and to strengthen his/her argument against any objections in advance (see van Poppel 2013, pp. 151-152). According to van Poppel, the easiest way is to identify the presentational choice of the design when we look at the way in which "fixed" components of arguments are instantiated in the argument scheme. In the pragmatic argument, the causal connection between an action and its consequence is a fixed component of the premise "Action X leads to the desired consequence Y". This fixed component may be linguistically represented in many specific ways, and these particular choices may have different effects on the recipient (see van Poppel 2013, p. 143).

 In Phaedrus's argument the premise that "Action X leads to the desired consequence Y" is modified with respect to the strength of the causal connection: "your hope […] will be greater". This modification can be paraphrased generally as: "Action X *increases the hope* of the desired consequence Y." It is therefore an attempt to deal with the objection concerning the propositional content of the argument, namely the question regarding the causal element. The protagonist expects that the antagonist could test the argument via the critical question 2: "Does that which is introduced as a cause indeed lead to the mentioned desirable result?"

 For the protagonist to claim the acceptability of the causal connection, it is necessary for him/her to be able to add sufficiently strong evidence to support it. If no such evidence is available, it is appropriate that s/he weakens the strength of the causal link in the argument. For the protagonist who anticipates the critical question regarding the causal link of the argument in

the situation when there is no evidence that is sufficiently strong enough to support this link, the optimal choice is to design the causal element of the premise in a subtle way. This is how s/he can avoid the antagonist's critical doubt, after which s/he would be forced to withdraw the argument (on account of the lack of evidence). S/he does not claim a strong causal link between action and consequence, but only a *certain chance* that the action would lead to the desired result. The choice of this design is therefore the optimal choice if the protagonist anticipates the antagonist's doubt of the propositional content; the protagonist therefore chooses the route (2) as the best way of dealing with the argumentation stage and achieving the concluding stage.

3.2.2 The "Isocrates" case

Designing the pragmatic argument works in the same way in another Perelman's illustration taken from Isocrates's speech: Isocrates presents and argument in favor of letting the young take part in deliberations. In the absence of direct linguistic cues, we have to base our analysis on more subtle cues:

> Since the quality of our judgments does not depend on our age but on our temperament and our faculty of attention, why not make it obligatory to call on the experience of two generations in order to make possible the choice of the wisest counsel on all matters? (Perelman and Olbrechts-Tyteca 1969, p. 256.)

In this excerpt Perelman presents an argument which is more complexly structured than the one in the Phaedrus case, where there are a number of implicit elements that need to be explicated by reconstruction. In the Isocrates case, just as in the Phaedrus case, a protagonist implements a pragmatic argument with a modified (weakened) version of the causal element. In the absence of any explicit formulation of the premise expressing a causal relationship, one can only make inferences from specific linguistic clues, such as "why not make it" and "to make possible". These clues lead one to interpret the proposal as an *attempt* from which the desired result does not follow with any degree of certainty. The argument can be reconstructed as follows:

1 We should expand the passive voting rights to include two generations.

> (1.1a) (An extension of the passive voting rights increases the chance of the choice of the wisest consul.)
> (1.1b) (Extending the passive voting rights has no negative effects.)
> (1.1b.1) (The quality of judgment is not worse in the young generation than in the older one.)
> 1.1b.1.1 The quality of our judgements does not depend on age but on temperament and the faculty of attention.
> (1.1a') (If an extension of the passive voting rights increases the chance of the choice of the wisest consul then we should expand the passive voting rights to include two generations.)

Note that in comparison with the previous argument, one can reconstruct this argument as a preliminary response to two types of doubts: to doubts in respect to the causal element, and to doubts regarding the justifying force. With regard to these doubts, the protagonist strengthens the argument by adding a coordinative branch 1.1b, which tentatively responds to the critical question 4: "Does the mentioned cause have any undesirable side effects?"

The choice of argument 1.1a with a weakened causal link together with the choice of a coordinative argument can be an optimal maneuver in the situation in which the protagonist anticipates some critical doubts concerning the propositional content and the justifying force of the argument. The protagonist expects that the argument will be challenged not only with regard to the question whether the action really leads to the desired result, but also with regard to the question whether the fact that the action does lead to the result is a sufficient reason for accepting the standpoint. We are in the situation in which the argument is questioned not only with regard to the causal strength but also with regard to the character of the side effects. The protagonist therefore chooses routes (2) and (3) as a way of dealing with the argumentation stage and achieving the concluding stage.

3.2.3 The "Locke" case

The third illustration is, according to Perelman and Olbrechts-Tyteca, a specific case to some extent. It is an argument which is "[a]lso based on variability, but with somewhat different conclusions in mind" (1969, p. 256). This is the argument from John Locke's *Letter on tolerance* in which Locke dissuades readers from promoting the idea of one true religion. His

"different conclusions in mind" can be interpreted as a negative variant of the pragmatic argument used to support a negative recommendation in the standpoint (see van Poppel 2013, p. 68). In this case, we can identify the designed premise 1.1 with the statement that "the action X *decreases the chance* of the desirable consequence Y":

> For there being but one truth, one way to Heaven, what hope is there that more men would be led into it if they had no rule but the religion of the court and were put under the necessity to quit the light of their own reason *and oppose the dictates of their own consciences, and blindly to resign themselves to the will of their governors, and to the religion which either ignorance, ambition, or superstition has chanced to establish in their countries where they were born? In the variety and contradiction of the opinions in religion, wherein the princes of the word are as much divided as in their secular interest,* the narrow way would be much straitened. […] One country alone would be in the right. (Perelman and Olbrechts-Tyteca 1969, p. 256.)[9]

One can say that even in this excerpt Locke's speech expresses a complexly structured argument whose structure can be captured as follows:

> (1) (We should not promote the idea of one true religion.)
> 1.1 The idea of one true religion decreases the chance of salvation for most people.
> 1.1.1 If there is only one true religion, then salvation will only be reached by the people of one country.
> 1.1.1.1a The people of a specific country are forced to accept the opinion of the governor of that country.
> 1.1.1.1b Governors have different opinions on which religion is the true one.
> 1.1.1.1c Following from the idea of one true religion, only one opinion on religion can be correct.
> (1.1') (If the idea of one true religion decreases the chance of salvation for most people it should not be promoted).

Note that Locke addresses two critical questions in the argument through both design and subordinative support. Both questions are related to the causal element in the pragmatic ar-

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[9] Perelman and Olbrechts-Tyteca in this illustration omitted a part of Locke's letter. To facilitate the reconstruction the omitted passage is here added, and the inserted text is in quote marked with *.

gument. Argument 1.1 is weakly designed: while it is suggested that the action against which Locke agitates prevents the achievement of the desired state, the design chosen is weak ("what hope is there"). The particular choice of the design can be interpreted again as a reaction to the anticipated question 2. This strategy is combined with subordinative support for the premise 1.1.1 which adds evidence for the causal element in the premise 1.1. It adds an explanation of why the chance of salvation for most people is decreased: the reason is that the idea of one true religion results in the possibility of salvation for the people of only one country.

Locke then supports this argument subordinatively, too. This added support can be interpreted as strengthening the argument in respect to the anticipated critical question 3: "Are there any other factors that must be present together with the proposed cause to create the mentioned undesirable result?" Locke was apparently aware that the idea of one true religion does not in and of itself necessarily have to limit salvation to a small group of people of one country. In the absence of any other factors all people might indeed opt for the true religion and attain salvation. This argument would not be sufficient for the acceptance of the standpoint. Locke therefore mentions some other factors, which together with the idea of one religion thwart this plan of all people opting for the one true religion and attaining salvation. These factors include the role of the governors, their different opinions, and the fact that they force the citizens of their countries to adopt their opinions. Taken all together, these factors lead to the undesired consequence of salvation for only a few people. The protagonist therefore chooses the route (2) as a way of dealing with the argumentation stage and achieving the concluding stage.

3. Conclusion

The answers to the questions posed in the introduction can be summarized into the following two points:

(1) The similarity of arguments with logical or mathematical demonstrations cannot be considered as a relevant explanation of the effectiveness of quasi-logical arguments from the point of view of the solution of a difference of opinion. The category of quasi-logical arguments as an argument scheme drawing its effectiveness from the imitation of logical or mathematical principles is unacceptable in the pragma-dialectical view. The fact that someone recognizes the argument as similar to a

logical or mathematical demonstration is irrelevant in terms of its functional and externalized description, which is elaborated by the pragma-dialectics. The relation of similarity can function neither as the definition of a specific argumentation scheme, nor as the definition of one specific strategic maneuver.

It is necessary to draw the following consequences from this investigation: one should reject the idea of quasi-logical arguments as implementing a unique argument scheme/strategy but rather to focus on the function of the quasi-logical elements in an argument with regard to the effective solution of a difference of opinion. From a pragma-dialectical point of view, the quasi-logical form of argumentation has to be reconsidered rather as particular sets of structural and lexical arrangements of elements in arguments, and one should research the specific functions of these arrangements in respect to an effective solution of a conflict of opinion.

(2) The concept of the quasi-logical form of an argument as something that contributes to the acceptability of a standpoint is sustainable, but only in a specific sense. It is necessary to offer a more structured explanation of their effectiveness based on an examination of the functions of particular quasi-logical elements in resolving a difference of opinion. The case study performed in this article shows that Perelman and Olbrechts-Tyteca's quasi-mathematical scheme of probability, or using the "concept of variability" in particular, can be identified with a weakened causal link in a pragmatic argument, which can be used as part of the dealing with any (anticipated) doubts regarding the propositional content of the argument.

This kind of strategic maneuver can be described as the optimal choice for the protagonist in the situation where the speaker expects the antagonist to challenge the propositional content of the argument or more specifically the strength of the causal relation expressed in the argument, and when there is no evidence strong enough to support the causal link. It can be also combined with other devices suitable in respect to the argumentation situation. By using this perspective, one can describe how this type of a maneuver approaches the three aspects of strategic maneuvering: choice of topical potential, adaptation to the audience demand and presentation devices. In terms of the choice of topical potential it is the choice of a pragmatic argument in which the causal element is weakened on account of the protagonist's anticipation of the specific audience demands (a critical antagonist questioning the power of the causal link) via a specific choice of presentation devices (the use of expressions "increases/decreases the chance" and their variants). Thus if one

wants to maintain the term "quasi-logical concept of variability" also as the name of a rhetorically strengthening strategy in pragma-dialectics, then one is permitted to do so but only bearing this specific definition in mind.

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