

The Scheme of Comparative Argumentation and Its Relevance for Competitive Debate

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Abstract

The article aims to explore the relation between comparative argumentation and competitive debate, identifying correspondences through Toulmin's argumentative model. A report of the argumentative scheme of comparative argumentation and its critical questions is proposed. Comparative argumentation is defined as the process of comparing two or more elements to highlight their differences and advantages. The article notes that the application of comparative argumentation is versatile and promotes the weighing of conflicting reasons. It concludes with the hypothesis that the structure of the comparative argumentation scheme reflects the intrinsic structure of competitive debate, as comparative argumentation seems to be a recurring pattern in the competitive debate.

Keywords: comparative argumentation; competitive debate; argumentative schemes; Toulmin's model.

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The landscape of competitive debate is continually enriched by new hermeneutics and paradigms that aim to provide a better understanding of the complex dynamics underlying persuasion, argumentation, and rhetorical strategies. This paper seeks to contribute to this debate and examines a significant yet overlooked tool in argumentation theory: the schema of comparative argumentation.

Comparative argumentation is a fundamental mechanism in many spheres of daily and professional life, ranging from personal decision-making processes to marketing strategies, political debate, and legal discourse. Despite its ubiquity, its logical structure and its potential within the realm of competitive debate are often underestimated or misunderstood.

In this study, we will explore the schema of comparative argumentation, analysing its structure and functionality (§1). Through an example, we will observe its composition and the implicated rhetorical strategies to highlight distinct and advantageous features (§2).

Subsequently, we will present how the schema of comparative argumentation fits into Toulmin's argumentative model (§3). We will examine the points of correspondence and convergence between Toulmin's model and the schema of comparative argumentation, illustrating how the key elements of the latter—criteria for comparison, evaluations based on such criteria, and the determination of differences, advantages, or preferences—can be diagrammed as fundamental components of Toulmin's model.

We believe that the investigation offers a new perspective on a fundamental discursive tool and contributes to illuminating its potential within the context of competitive debate.²

1. Comparative Argumentation Schema

1.1. Argumentative Schemes

Walton, Reed, and Macagno (2008) define "argumentative schemes" (AS) as:

«forms of argumentation that represent the inferential structure of common types of argumentation employed in everyday discourse, as well as in specialised contexts such as legal argumentation and scientific argumentation.»

AS refer to the structures and specific patterns of reasoning that constitute arguments. AS are delineated using a series of premises and a conclusion, along with some critical questions aimed at assessing the strength of the argument. AS provide a systematic way to identify and analyse the underlying logic of arguments, as well as to guide the inferential process from premises to conclusions.

Walton, Reed, and Macagno distinguish three main groups of AS: (i) deductive, (ii) inductive, and (iii) presumptive. Walton's (1996) approach to AS, following the Aristotelian tradition of the *Topics*, aims to provide a theory of presumptive reasoning, which he views as a dialogic process—*scilicet*, bringing forward an argument and formulating critical questions, with AS designed accordingly. A unique feature of Walton's AS is the inclusion of a series of *critical questions* that request justifications or clarifications of the given premises, question them, identify missing premises, and

² In this contribution, we will employ the following abbreviations for recurring terms: "AS: argumentative schemes"; "CA: comparative argumentation"; "AA: argumentation by analogy"; "CQ: critical questions"; "TM: Toulmin model"; "CD: competitive debate".

seek further information, particularly potential counter-evidence. These questions express the defeasibility of plausible arguments: the possibility of revising the argument's conclusion based on new information. Critical questions aim to assist the *respondens* in formulating critical responses. An argument is considered defeated if a *quaerens* poses a critical question to which the *respondens* cannot respond without radically altering their conclusion.

Now let us discuss comparative argumentation (CA) as an argumentative scheme.

1.2. State of the Art in Comparative Argumentation Literature

Without any claim to completeness or systematics, I first aim to outline an overview of recent literature in the theory of argumentation on CA. Four approaches to the argumentative *topos* of *comparatio* can be distinguished:

1. Walton's *argumentative schemes* approach.
2. van Eemeren's *pragma-dialectical* approach.
3. Amgoud's *Decision Theory*-based approach.
4. Perelman and Olbrechts-Tyteca's *New Rhetoric* approach.

In Walton's AS approach, the question arises concerning the distinguishability of the CA schema from that of the argument by analogy (AA), which relies on the comparison of similar cases. Hastings (1963) in *A Reformulation of the Modes of Reasoning in Argumentation* responds affirmatively, asserting that CA differs from AA because: a) CA involves the comparison between concrete elements, whereas AA deals with abstract principles; b) AA is more contentious and prone to fallacious use compared to CA. However, later, Walton (1996, 76), while acknowledging that Hastings' (1963) doctoral thesis is the best available source for AS and their respective critical questions, negatively answers the question of distinguishability between AA and CA, advocating for the reduction of CA to AA.

In van Eemeren's pragma-dialectics (2008, 46), "comparison (or similarity)" is considered one of the three main categories of AS: symptomatic (or sign-based), founded on the principle that one thing is indicative of another; comparative (or similarity-based), based on the principle that one thing is comparable to another; and causal (or consequence-based), grounded on the principle that one thing is the cause of another. In particular, the argumentative scheme of comparison is divided into two subtypes: descriptive analogy and normative analogy. Although the pragma-dialectical approach assigns a preeminent and classificatory value to the notion of comparability, it does not distinguish between AA and CA; on the contrary, AA is subsumed under CA. Furthermore, van Eemeren develops corresponding critical questions for the systematic evaluation of comparative argumentation schemes, aimed at elucidating the implicit premises (van Eemeren, 2018, 47, 100; van Eemeren & Henkemans 2016, 87; van Eemeren & Garssen 2009, xvii). He ultimately cautions against two specific improper uses of comparative argumentation: the naturalistic fallacy and the fallacy of false analogy (van Eemeren 2018, 64).

Within the framework of decision theory, CA becomes an effective tool for optimizing the decision-making process. Amgoud, in *Argumentation for Decision Making* (2009, 302), proposes a two-phase model of decision-making: the first phase, the inference stage, involves constructing and evaluating the *pro et contra* arguments for each option; the second phase, the comparison stage, entails comparing pairs of alternatives using a criterion based on the arguments accepted in the inference stage. Generally, CA provides comparative reasons that justify the superior alternative

through the weighing of *pro et contra* arguments, grounded in the decision-making criteria that the very *reasons clash* introduces during rational disagreement.

In the context of Perelman & Olbrechts-Tyteca's "New Rhetoric" (1988, 326), CA is deemed a "quasi-logical" argument and is differentiated from AA because, unlike AA, the basis of CA rests on quantitative considerations a CA ("A is as 'p' as B" / "A is more 'p' o less 'p' than B") rather than on qualitative considerations (A is like B). Perelman asserts that in CA:

«nous comparons des réalités entre elles, et cela d'une façon qui semble bien plus susceptible de preuve qu'un simple jugement de ressemblance ou d'analogie. Cette impression tient à ce que l'idée de mesure est sous-jacente dans ces énoncés, même si tout critère pour réaliser effectivement la mesure fait défaut: par là les arguments de comparaison sont quasi logiques.»

A pivotal theme common to various approaches in the literature on argumentation theory is the relation between CA and AA. Some scholars see no distinction between the two AS; others, however, differentiate and even oppose them. Additionally, a characteristic of CA is the presence of criteria that allow for weighing the *pro et contra* of alternative options (Sartor 2018, 630).

Furthermore, according to Doury (2009), CAs can be classified as follows:

- Whether the subjects being compared belong to the same domain or to different domains.
- Whether the comparison is based on quantitative considerations (A is more or less p than B / A is as p as B) or qualitative ones (A is like B).
- Whether the comparison involves real facts or also hypothetical or invented scenarios.
- Whether the argumentation aims to support the arguer's viewpoint or to refute the opponent.

A final point concerns the rhetorical and political functions of CA. McCormick (2014) examines how ancient rhetorical theories address CA (*synkrisis, comparatio*), focusing on Aristotle, Cicero, and Quintilian. In Aristotle, CA is defined as *εἰδος* of argumentation by examples, based on similarities (Kraus 2015, 178), and is considered a tool for rhetorical discourse and political action, not merely a literary device. It traces the comparative argumentative technique on hypothetical and controversial subjects (*paradeigma*) back to the Socratic method and democratic deliberation. While Cicero associates his idea of *collatio* (i.e. argumentation through comparison dependent on the similarity of the compared things) with political debate, Quintilian warns that arguments by comparison based on *similitudo* –from illustrative fables (see also Garssen 2009, 155) to hypothetical comparisons to historical examples– are often various degrees of deception, not merely dissimulation.

We contend that, in order to provide a description of the AS of the CA, each of the invoked elements must be taken into consideration. We thus advance a proposal for a description, the salient features of which, in summary, are as follows: to emphasise the importance of the comparability of the elements under scrutiny; to identify pertinent characteristics through description and examination of similarities and differences; to establish and justify comparison criteria for evaluating the significant attributes of the elements to be compared; to assess these elements through the established and justified comparison criteria.

2. Proposal for a Theory of Comparative Argumentation

2.1 Characteristics of Comparative Argumentation

We now outline the distinctive characteristics and the structure of the schema of CA, to provide a comprehensive and illustrative account, and to demonstrate its translatability into Toulmin's argumentative model (1958, ed. 2003).

The reasoning structure of CA is shared across various discursive contexts, including academic writing, advertising, and public discussion. Moreover, CA is prevalent in most arguments in intrinsically conflictual disciplines such as philosophy, politics, and history.

CA is a *téchne rhetoriké* aimed at persuasion through comparison/contrast. CA is defined as a type of reasoning in which two or more elements (e.g. objects, ideas, actions, situations, systems, theories, individuals, etc.) are compared and/or contrasted with the aim of determining a meaningful difference, an advantage, a preference, and *ergo*, to support a thesis, assess states of affairs, or make decision among alternative options.

The schema of CA entails some peculiarities:

1. Value relations (better, worse, or equal), rather than mere analogy or dissimilarity, among elements (Bagnoli 2018, 157).
2. It is sufficient for a comparison to be possible that there exists a relation of comparability between the elements, without the need for a relation of commensurability (Bagnoli 2018, 157).
 - a. The type of relation between the elements depends on their degree of homogeneity and quantifiability: the more homogeneous and quantifiable the elements, the more commensurable they are—that is, measurable or evaluable using the same unit of measurement or the same quantitative criteria; the less homogeneous and quantifiable the elements to be compared, the more the comparison will require the identification of common qualitative criteria, that is, of relevant aspects rather than units of measurement.
3. The determination of the criteria for comparison (Brožek 2018, 377-380): characteristic aspects of the elements to be compared.
4. Highlighting, examining, and evaluating the relevant aspects of similarity and difference between the elements in relation to the thesis to be supported or the decision to be made.

The persuasiveness of the CA scheme hinges on the clarity of its expositional structure. There exist two comparison methods tied to the process of reason weighing. The first is "block-by-block": each element is thoroughly analysed and discussed separately. The second is "point-by-point": it highlights similarities and differences, thereby facilitating a direct comparison between the elements. In the "block-by-block" method, the reasons either collectively support or oppose a single stance, whereas in the "point-by-point" method, the reasons aim to support or counter each argument in the discussion (Xie 2020, 248). In the practice of competitive debate, the expositional structure following the "point-by-point" method is clearer and more persuasive, as it illuminates the points of argumentative clash.

2.2 Formal Structure of Comparative Argumentation

2.2.1 Elements of the Scheme

Having outlined the peculiarities of the CA scheme, we present its formal structure, articulating five levels of premises (P) before arriving at the conclusion (C).

- *P0 (Presupposition)*: Justification of the comparability of elements A and B, of their relevance, and of the specific context of the comparison.³
- *P1*: Description of the relevant aspects of element A.
- *P2*: Description of the relevant aspects of element B.
- *P3*: Criteria for the comparison between A and B: a) definition of the criterion; b) justification of the criterion's relevance to the thesis/conclusion or to the decision on the topic; c) prioritisation and hierarchical structuring of the criteria.
- *P4*: Evaluation of A and B based on comparison criteria, including also the identification and justification of underlying implicit assumptions, and the anticipation, examination, and response to potential objections/counterpoints.
- *C*: Determination of a difference, an advantage, or a preference between A and B based on the conducted evaluation.

2.2.2 Critical questions

Upon critically analysing the premises of the above-outlined CA scheme, we propose several critical questions (CQ) to guide the debater in assessing the validity and strength of the argument, in evaluating its relevance, and in identifying potential biases or logical errors.

For the scheme's premise on the comparability between elements (P0), potential CQs include:

- Have alternative options besides A and B been considered?
- Are elements A and B significantly comparable?

These CQs aim to prevent erroneous, irrelevant, or misleading comparisons between elements too heterogeneous, complementary, or complex to be deemed comparable.

For the descriptive premises of the scheme (P1 and P2), potential CQs include:

- Are the descriptions of A and B clear, complete, and comprehensible? Have A and B been sufficiently defined to allow for meaningful comparison?
- Are the descriptions of A and B relevant to the matter at hand? Have all relevant aspects for the comparison been included?

These CQs aim to prevent incomplete or ambiguous descriptions that undermine the validity of the comparison.

For the scheme's premise dedicated to comparison criteria (P3), potential CQs are:

³ It is assumed that we are considering "open" debate motions as well, meaning those that do not specify a particular term of comparison. In such cases, the term of comparison is provided by the opposition and is not presupposed by the debate motion. Given that it is set by the opposition, one must question whether the term of comparison is appropriate. The necessity to set a term of comparison even for open debate motions primarily arises from the formality of comparative argumentation and ultimately from a committed adherence to the contrastive theory of reasons.

- Are the chosen comparison criteria pertinent and justified?
- Are the comparison criteria objective and impartial?
- Are there relevant comparison criteria that have been overlooked?
- How is the weighting conducted?
- Do the comparison criteria vary depending on the context?

These CQs aim to prevent partial and unilateral selections, influenced by the subjectivity of the debater and the absence of a weighting method.

For the evaluative premise of the scheme (P4), potential CQs include:

- Do the evaluations of A and B rely on accurate and verifiable facts?
- Do personal preferences influence the comparative argumentation?
- Has the context within which A and B have been compared been taken into account?
- Have uncertainties in the evaluation of A and B been considered?
- Are the sources used to support the evaluations of A and B reliable?

These CQs aim to prevent distorted evaluations arising from biases, beliefs, limited or erroneous knowledge, misunderstanding of context, conflicting information, and presumptions of objectivity.

Lastly, before reaching the conclusion (C), additional CQs related to the inferential structure might include:

- Is the conclusion well-justified and supported by the evaluation undertaken?
- Have potential consequences or implications of the conclusion been considered?
- Have possible counter-arguments or objections to the comparative argumentation been considered?

These CQs aim to discourage, *as much as possible*, non-definitive, contestable, or inconclusive conclusions.

The presentation of the formal structure of CA and its CQs illuminates additional aspects of CA in relation to the practice of CD:

1. *Comparatio* is the essence of *disputatio*, and identifying comparable elements is a task for the arguer encouraged by CD activities.
2. The importance of defining and clarifying compared/contrasted elements to ensure a common foundation for CD.
3. CD activity encourages:
 - a. Comparing/contrasting scenarios.
 - b. Discussing and justifying selected decision-making criteria to make them as shared as possible.

- c. Weighing and prioritizing different criteria for a more comprehensive and accurate evaluation of elements A and B.
4. The effect of CD activity is to educate on:
- a. Minimizing biases.
 - b. Enhancing the accuracy of evaluations.
 - c. Incorporating specific contextual circumstances into evaluations.
 - d. Better assessing uncertainties, knowledge gaps, and contradictory information.
 - e. Challenging one's own beliefs by considering alternative perspectives.

In summa: The practice of CD based on AC fosters critical thinking by enhancing the understanding and awareness of the complexities of issues and, from an epistemological standpoint, aids in identifying and analysing the fields where further investigations are necessary.

2.2.3 Examples

After providing an account of the CA framework that includes a description of its distinctive features, its formal structure, and its potential critical questions, we present and analytically comment on an exemplary case of CA usage drawn from the domain of advertising history.

Launched by PepsiCo in 1975 and continuing for several years, reaching its zenith in the 1980s, this campaign significantly impacted the consumer product marketing landscape. The "Pepsi Challenge" consisted of a blind taste test between Pepsi and Coca-Cola: without disclosing which beverages were being served, Pepsi representatives offered passersby two glasses of cola, one containing Pepsi and the other Coca-Cola. To promote itself and challenge Coca-Cola's dominant market position, Pepsi used the test results in television, radio, and print advertising. These results frequently favoured Pepsi due to its sweeter formula, which gave it an advantage in a single test, even though this did not translate to an advantage in terms of regular consumption of the beverage.

We now present the CA framework underlying the "Pepsi Challenge" campaign.

<i>Formal elements of the schema</i>	<i>Content</i>
P0: Justification for the comparability between Pepsi and Coca-Cola, including relevance and specific context for comparison.	The comparison is feasible as both Pepsi and Coca-Cola are exceedingly popular cola-based beverages in the global drinks market. The comparison is pertinent as Pepsi aims to challenge Coca-Cola's dominant market position.
P1: Description of the relevant aspects of Pepsi.	Pepsi is a sweet cola-based beverage manufactured by PepsiCo.
P2: Description of the relevant aspects of Coca-Cola.	Coca-Cola is a cola-based beverage, less sweet than Pepsi, produced by The Coca-Cola Company.
P3: Criteria for comparing Pepsi and Coca-Cola.	Taste serves as the primary consumer choice factor for cola-based drinks.
P4: Evaluation of Pepsi and Coca-Cola based on the comparison criteria.	According to the "Pepsi Challenge," which relies on a blind taste test, consumers often prefer the taste of Pepsi over that of Coca-Cola. (It is assumed that consumers can discern the flavour differences between the two beverages. One could object that in a single test, the sweeter flavour tends to be preferred, whereas in extended use tests, a less sweet flavour tends to be favoured.)

C: Determination of a difference, advantage, or preference between Pepsi and Coca-Cola based on the evaluation conducted.

Pepsi should be the preferable consumer choice for cola-based drinks as it holds a taste advantage over Coca-Cola.

We observe how the comparison is employed to highlight distinctive and advantageous features in relation to alternative options.

2.2.4 Transposition of Comparative Argumentation into the Toulmin Model

In this section, we elucidate how the argumentative schema of CA (see below in section 2.2.1) can be transposed into the Toulmin Model (TM). We will recall the fundamental elements of the TM and demonstrate their points of correspondence and convergence with the schema of CA.

The TM, developed by British philosopher Stephen Toulmin in *The Uses of Argument* (1958), is an argumentative model designed to identify the structure of an argument and which divides it into six components, three of which are foundational elements.

The first three foundational elements are claim, grounds, and warrant. The claim is what the arguer intends to demonstrate. Grounds are the factual data (statistical data, testimonials, observations, etc.) that support the claim. The warrant is the assumption, principle, or norm—often implicit—that guarantees the inference, serving as a logical bridge from the grounds to the claim.

The other three elements are: backing (reasons supporting the warrant, which can be either additional sub-grounds or sub-warrants); qualifier (a modal qualifier that limits the scope of the claim); and rebuttal (refutations of the claim, grounds, and warrant, to which the arguer pre-emptively responds).

In relation to the correspondences between the CA schema and TM, we observe the following:

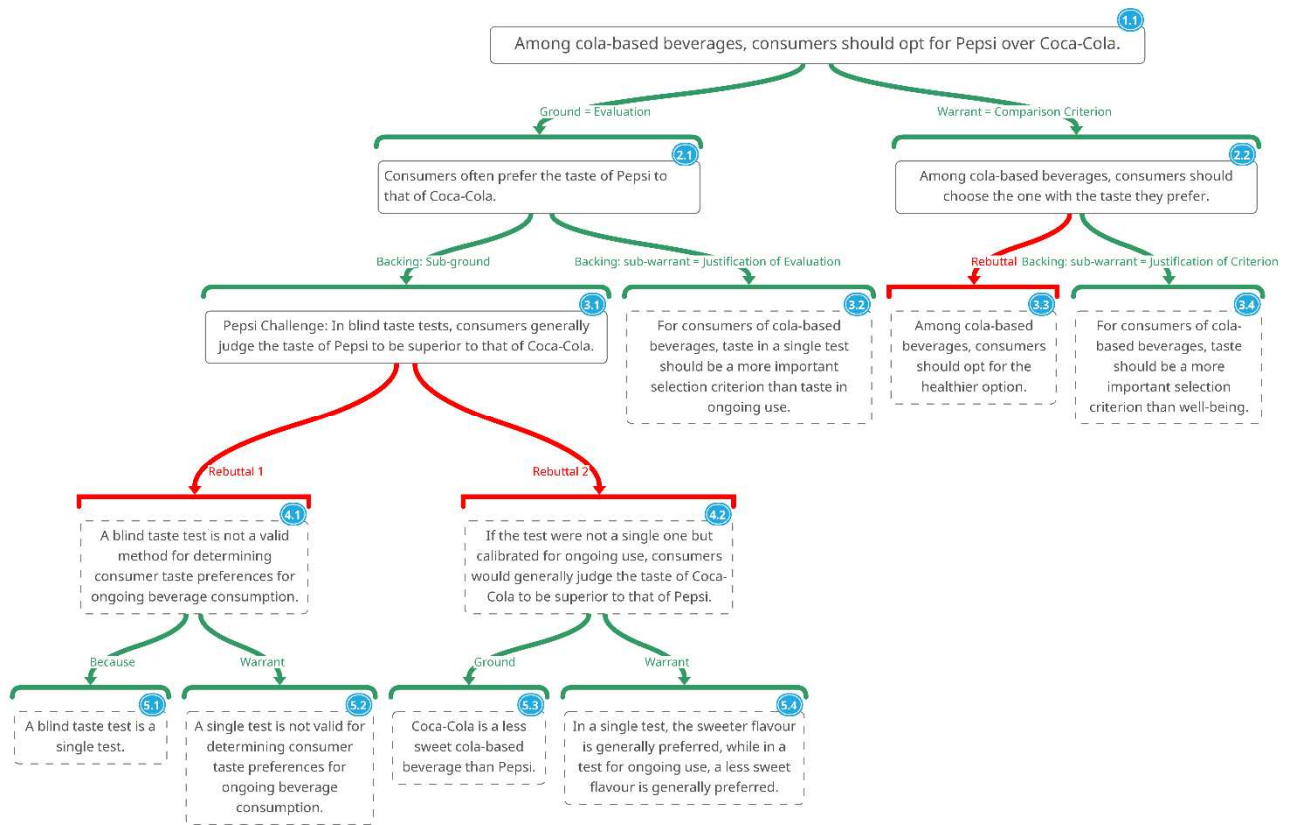
1. The conclusion, i.e., the determination of a difference, an advantage, or a preference between element A and element B based on the performed evaluation, corresponds to the *claim* in TM.
2. Premise P4, i.e., the evaluation of element A and element B based on comparative criteria, corresponds to the *grounds* in TM.
3. Premise P3, i.e., the criteria for comparison between element A and element B, corresponds to the notion of *warrant* in TM. A clarification: for the comparative criteria to be superimposable upon the warrant, they must also be criteria by which a difference, an advantage, or a preference between element A and element B is determined.
4. The definition of comparison criteria, as a component of Premise P3, should be considered as a possible *sub-warrant*.
5. The justification for the prioritisation and hierarchical arrangement of comparison criteria over other comparative criteria, as a component of Premise P3, should be viewed as a possible *sub-warrant* that anticipates responses to hypothetical rebuttals to the warrant.
6. The justification for assumptions underlying the evaluation of element A and element B based on comparative criteria, as part of Premise P4, should be considered as a possible *sub-warrant* that anticipates responses to hypothetical rebuttals to the grounds.

7. Premise P0, i.e., the justification for the comparability between elements A and B and the specific context of the comparison, should be considered as a possible *sub-warrant* against hypothetical rebuttals to the argument as a whole.
8. Premises P1 and P2, i.e., the pertinent descriptions of elements A and B, should be considered as *sub-grounds*.

Some of the observations discussed above are concretely represented in the argumentative diagram shown in Figure 1, which serves as evidence for the transposition of the CA schema into TM. Two clarifications are in order.

- 1) In the “Pepsi Challenge” campaign, the only part of the argument presented is the component labelled as 3.1 in the diagram. All other components of the argument are left implicit.
- 2) The effort to make explicit the parts of the argument and to anticipate responses to objections allows for the definition and prioritisation of the comparison criterion, the *fulcrum* of the argument. In the diagram, the comparison criterion is defined and prioritised in sections 3.2 and 4.3.

Fig. 1 – Argumentative diagram of the comparative argumentation of the "Pepsi Challenge" campaign



3. Considerations on Comparative Argumentation and Competitive Debate

In conclusion, we outline some avenues for research regarding the relation between the CA schema and the practice of CD.

When it set within the context of CD, the CA schema exhibits remarkable features:

- 1) Broad *versatility* of application across various types of questions and disciplinary fields: It proves equally effective in the analysis of philosophical theories, the comparison of political solutions, and the evaluation of corporate performance, among others.
- 2) It encourages debaters to undertake cognitive tasks aimed at synthesising a range of knowledge data, derived from various processes of question analysis that establish the subject of debate, and at searching for information in *meaningful* observations to highlight pertinent aspects of similarity and difference.
- 3) It optimises the persuasive capacity of the discourse, as it represents the most direct method for presenting *relative* advantages and disadvantages. Through defining the *pro et contra* in relation to competing alternatives, the debater facilitates the task of decision-making and, consequently, persuasion in CD.
- 4) The judicious use of the CA schema fosters balance and impartiality. Indeed, in an ideal CD, with a well-balanced motion and well-constructed arguments through pertinent and valid comparison criteria, one should aim for either: a dilemma situation where no position prevails over the other, as the weight of the reasons is evenly distributed between the parties—an outcome that informs us of the intrinsically aporetic nature of the problem or an

unproductive way of framing the issue; or a situation where, through dialectic, it becomes easier to *find a way out of the apparent aporia* and decide on a particular resolution of the matter.

- 5) Indeed, the influence of biases and partisan perspectives is counterbalanced by the tendency towards *equilibrium*, thus creating optimal conditions for even-handed judgement. Furthermore, by increasing the number of CD on the same topic, considering a greater array of competing alternatives, and analyzing them based on multiple comparison criteria, one strengthens the capacity for critical analysis of the issue complexity. So, CD becomes an epistemic tool.
- 6) Lastly, CA schema appears to be pervasive in CD, manifesting as a *recurring pattern* throughout both the descriptive and argumentative phases of rational discussion. Given that the pervasive presence of a formal schema in a process like CD justifies its classification as the foundational formal structure of that process, the ubiquity of the CA schema in both the activity and procedure of CD might compel us to assert that the CA schema constitutes a basic formal structure of CD.

Demonstrating this thesis would necessitate an exploration of the use of CA within a standard model of CD, detailing the reasons for its adoption and its manifestation: a) during the key aspects of the preparatory phase; b) at various moments (opening, development, closing) that are common to all forms of CD, encompassing both the presentation of argumentative strategy and the phases of argumentation and refutation; c) at the moment of evaluating CD as a whole. Furthermore, it would require showing: a) how the analysis of similarities and differences is crucial for a comprehensive analysis of the problem and for the exploration of alternative solutions; b) how the justification of the decision-making criterion and the assessment of the elements under discussion based on this criterion are fundamental in argumentative and refutative activities; and c) the reasons why the analysis of argumentative clashes is employed to holistically evaluate CD.

Such an aim is tangential to the objectives of the present contribution. Nevertheless, we would like to conclude this text with the following research hypothesis: the paradigm of comparative argumentation serves as a pattern that reflects the intrinsic structure of competitive debate.

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