Dialectical Topoi

Abstract: a) Topics and Objectives. Dialectical topoi constitute an essential component of Aristotelian logic and theory of argumentation (dialectics). These can be characterized as essential patterns of argumentation which allow us to found premises which are suited to the establishment of specific theses. Our research group concentrates on two themes: the first working focus consists of a precise investigation of the topos-based dialectical logic found in Aristotle. We are concerned in particular with the dialectical texts contained in the Organon (Topics, Rhetoric, Sophistical Refutations), and we are considering their relationship to the formal logic developed in the Prior Analytics. The second focus of our work is an investigation of the reception of Aristotelian dialectics in the Renaissance. Occurring in the 16th century was an intensive reception of the Aristotelian Topics, as suggested by numerous new translations and commentaries. We are concentrating on the relationship between veritas/scientia and opinio/probabilitas in the epistemology of the Renaissance. In particular, we are interested in the question of how the dialectics and rhetoric of the Renaissance were influenced by the form and genre of the dialogue, and in the role played in the Renaissance by the spatial dimension, which is contained both in Aristotle’s definition of the topos as the »place from which the attack comes«, as well as in Cicero’s definition of the locus as the »seat of the argument« (sedes argumentorum).

b) Methods. Relevant passages from the texts of the Aristotelian Organon are analyzed and set into relationship with one another. Consulted in particular in interpreting these texts is the inventory of 20th century theories dealing with logic and argumentation; modern mereological and topological systems, for example, are used in reconstructing Aristotelian logic, albeit without overlooking the historical specificity of the problems that are bound up with these antique texts.

c) State of the Discussion. The group has concluded that Aristotelian formal logic is dependent upon and was shaped in various ways by topos-based dialectical logic. Aristotelian predication theory, for example, plays a decisive role for various aspects of the Aristotelian syllogistic which is contained in the Prior Analytics. Beyond this, the group has demonstrated that interpretations of the Aristotelian Topics made an essential contribution to the emergence of a relativistic epistemology in the Renaissance. The status of opinio/probabilitas in the Renaissance, for example, was influenced by interpretations of the Aristotelian concept of endoxon.

Projects:
- »The Aristotelian Concept of topos« (Marko Malink, Christof Rapp, Tim Wagner)
- »The Reception of Aristotelian Topics in the Renaissance« (Klaus Hempfer, Angelika Lozar, Anita Traninger)
- »The Dialectic and Its Relationship to Dialogue as a Genre of Theoretical Discourse« (Klaus Hempfer)
## Contents

1. **Results**

   1.1 **The Aristotelian Concept of *topos***

      1.1.1 **Eristic Topoi**

      1.1.2 **The Dialectical Logic of the *Topics* and the *Sophistical Refutations* and Their Relationship to the Formal Logic of the *Analytica priora***

      1.1.3 **Translations of and Commentaries on the Second Book of the *Analytica priora* for the Akademie Edition of the Works of Aristotle**

      1.1.4 **A Method of Modal Reasoning in Aristotle**

      1.1.5 **Predication and Spatial Relationships**

   1.2 **The Reception of the Aristotelian *Topics* in the Early Modern Era**

      1.2.1 **New Material Reception**

      1.2.2 **New Intellectual Reception**

      1.2.3 **Problems Pertaining to the Early Modern Exegeses of the *Topics***

         a) **Clarifications of Central Terms**

         b) **The Relationship between *scientia* (Necessarily True Knowledge) and *opinio* (Opinion, Opinion-Based Cognizance)/*fides* (Conviction) or *veritas* and *probabilitas/verisimilitudo***

      1.3 **The Dialectic and Its Relationship to Dialogue as a Genre of Theoretical Discourse**

2. **Publications of the Research Group/Bibliography**

3. **Citation**
1 Results

In thematic terms, the project of the group is to situate the question of the epistemic role of spatial models, a question which acts as a framework for research group D-III (Spatial Models and Spatial Thinking). Dialectical topos are a paradigmatic case of the interdependency of spatial and epistemic orders. According to the Aristotelian understanding, a topos is a pattern of argumentation with whose help premises can be found and established which allow us to arrive at certain argumentative objectives. The Aristotelian theory of topos implies a spatial model of the arrangement of concepts within which relations of superordination and subordination, opposition, inclusion, and exclusion can be described and exploited methodically by means of spatial terms. The Aristotelian formation of the concept already stands in a relationship of tension to literal meanings and to rhetorical and mnemotechnical applications of the term topos. In terms of the history of theory, the ambiguity of the concept of topos has been extended to include additional levels of meaning, a process for which the complex reception history of the Aristotelian Topics is substantially responsible. This research group, hence, is undertaking research in two different fields: first, the antique or Aristotelian conception of topos (see 1.1), and secondly, the reception of the Topics in the early modern era, and particularly the theories of dialogue proposed by Sigonio, Tasso, and Sperone Speroni (see 1.2–3). The investigations which pertain to this early modern reception are conceived as a contribution to the history of the transformation of spatial models in the sciences. Thematically, therefore, this research group is also affiliated with research group E-II (Space as Transformed in the History of Science). This double affiliation is mirrored in the (slightly awkward) nomenclature: D-III-E-II-1.

Of central importance for collaboration and communication within the research group are regular workshops, taking the form of reading groups and colloquia, in which the members of the group work in concert, for example, through the Aristotelian texts that are fundamental for the group's research topic. An important role in the context of this collaboration was played by a conference entitled »Lost in Logical Space«, which was held in July 2009 and dedicated to the Sophisti elenchi.

1.1 The Aristotelian Concept of topos

This focal area is directed first of all toward the Aristotelian concept of topos itself. Secondly, we are investigating Aristotle's logic, which is essential for the concept of topos, and which is itself based on the application of topoi, as well as the overall development of Aristotelian logic out of the concept of topos. Thirdly, we are concerned with the spatial models that are constitutive of Aristotle's logic alongside the topos. Playing an important role in this context is the question of the relation of that which is contained, as well as the heuristic contribution of spatial models to the development of mereological (based on the presupposition of whole and part) models. An important element, and one unique in the research to date, is the combination of these three partial aspects of Aristotle's »topical« logic, with its basis in spatial models.
1.1.1 Eristic Topoi

Together with visiting Topoi-professor Pieter Sjoerd Hasper, Christof Rapp is investigating a special application of the topos concept in the hitherto little-researched area of eristics. The approach typically found in the research to dialectics on the one hand and eristics on the other is reflected clearly in the inadequacy of the literature vis-à-vis Aristotle’s Topics on the one hand and his Sophistici elenchi on the other. In order to compensate for this inadequacy, Pieter Sjoerd Hasper and Andreas Anagnostopoulos (D-II-1 The Ontology of Space) began by taking up this topic in a seminar. The result was an invitation to and a call for papers for a conference on the Sophistici elenchi. The conference took place in June of 2001, and brought together the most important experts in this area (Louis-Andre Dorion, Montreal; Paolo Fait, Pisa; Valentina di Lascio, Cambridge; Luca Castagnoli, Durham; Marko Malink, Berlin; Lucas Angioni, Campinas; Allan Back, Kutztown; Carrie Swanson, Rutgers).

1.1.2 The Dialectical Logic of the Topics and the Sophistical Refutations and their Relationship to the Formal Logic of the Analytica priora

Marko Malink is investigating the concept of deduction (syllogismos) in the Sophistical Refutations (in particular chapter 6). He demonstrates that certain characteristics of deductions which are customarily associated with formal logic are already presupposed in the topos-based logic of the Sophistical Refutations (for example the explicit subject-predicate structures of premises, and requirements with regard to the identity of linguistic expressions). Interim results were presented at the Topoi conference Lost in Logical Space. An essay on this topic is currently under peer-review by Cambridge University Press. Also produced within this research focus have been: »A Non-Extensional Notion of Conversion in the Organon« (MALINK 2009a), and »Indeterminate Propositions in the Prior Analytics 1.41« (MALINK 2009b).

1.1.3 Translations and Commentaries on the Second Book of the Analytica priora for the Akademie Edition of the Works of Aristotle

The second book of the Analytica priora is of interest for the research group Dialectical Topoi in particular because in it, the apparatus of formal syllogistics is applied to concepts from the topos-based logic of the Topics and the Rhetoric. Taking place with support from Topoi were a number of meetings with Niko Strobach, in which a translation of this book was completed. For the commentary, Marko Malink concentrated initially on the treatment of circular demonstration in Analytica priora II 5–7. He argues that a problematic passage in II 7.59a32–41, one generally regarded as inauthentic, is genuine, and in fact demonstrates Aristotle’s knowledge of the three figures of the so-called proleptic syllogisms. The results will be published in an essay entitled »Figures of Proleptic Syllogisms in Prior Analytics 2.5–7.«
1.1.4 A Method of Modal Reasoning in Aristotle

In this project, Marko Malink (D-III-E-II-1 Dialectical Topoi) and Jacob Rosen (D-II-2 Place, Space, and Motion) are working together. The objective of this undertaking is to integrate the investigations into the Logic undertaken in D-III-E-II-1 with those on the Physics undertaken in D-II-2. Here, it is a question of a method of modal reasoning in Aristotle, one that is closely connected with the topos presented in Aristotle’s Topics VII 1, 152b7–24, and which is based on the following principle: If B follows from A, then the possibility of B follows from the possibility of A. Initially, we are investigating how Aristotle grounds this method of reasoning theoretically (Analytica priora I 15), and thereafter, how he applies it in a context that is related to physics and cosmology (Physics VII 1, VIII 5, De generatione et corruptione I 2, De caelo I 12, as well as Metaphysics Θ 4 and additional texts). These efforts are intended to generate a unified explanation of this often misunderstood method of reasoning, as well as an improved understanding of the respective physical and cosmological arguments. Our interim results have been presented publicly on a number of occasions, for example in an advanced seminar at Humboldt-Universität zu Berlin during winter semester 2009/2010; in Campinas (Brazil, May 2010), in Zadar (Croatia, September 2010), and Hamburg (December 2010). Currently, a comprehensive manuscript entitled »A Method of Modal Proof in Aristotle« is being peer-reviewed by the Oxford Studies in Ancient Philosophy. An additional manuscript, entitled »Modal Proof in Prior Analytics 1.15.« is currently in preparation.

1.1.5 Predication and Spatial Relationships

In cooperation with Oxford University and Rutgers University, Marko Malink and Christof Rapp are participating in a network which is researching relationships of predication in Aristotelian logic, a project which pertains directly to the logical background theory for the application of topoi. The first conference on this topic, which was co-organized by Christof Rapp, took place in New Brunswick in September 2008, and was followed by a conference in San Francisco in April 2010 (in cooperation with Marko Malink and Alan Code). A subsequent conference, to be devoted in particular to relationships of identity and coincidence in Aristotelian logic, is currently in preparation in consultation with our cooperation partner at São Paulo University.

1.2 The Reception of the Aristotelian Topics in the Early Modern Era

In contrast to previous investigations of the medieval reception of the Topics (see for example GREEN-PEDERSEN 1984), the reception of the Topics in the early modern era for the most part still represents ›terra incognita.‹ Remaining to be determined, basically, is the degree to which beginning around the 16th century, genuinely innovative interpretive approaches emerged vis-à-vis works which continue up to the present to be regarded as difficult to comprehend, or whether instead only readings ›filtered‹ through Cicero and Boethius – which furthermore still enjoy currency – have perpetuated themselves.
Initially, a central task of this part of the project, then, was to work through the material reception of this text in the form of new translations from Greek into Latin and in the form of commentaries in order to proceed to a subsequent step which involved an examination of new forms of intellectual reception. We have arrived at the following conclusions.

1.2.1 New Material Reception

Observable beginning in the 16th century is an intensive new material reception of the Aristotelian *Topics*, one which ‘boomed’ in particular in the second half of the century, and which may perhaps be considered in the context of the Reformation and the Counter-Reformation, since commentators on this work are found for the most part in ecclesiastical circles. According to the current state of our knowledge, the new material reception of this work is manifested on the one hand in eight new translations, all of them prepared by representative scholars of the epoch (for example Agostino Nifo, Joachim Périon, and Julius Pacius), and on the other by numerous commentaries, some of them republished many times. Altogether, we have been able to substantiate the existence of 40 commentaries on the basis of unambiguous titles (*In topicam Aristotelis*, etc.). Presumably, however, further commentaries are to be discovered under more equivocal titles (for example *De dialectica Aristotelis*, etc.). The new material reception of the *Topics*, moreover, was accompanied by a no less intensive new reception of the commentary on this work composed by Alexander of Aphrodisias, a text which in the early modern commentaries represents a central foundation for new interpretations of the *Topics*.

1.2.2 New Intellectual Reception

In this regard, we can deduce to begin with from the translations and commentaries that their authors quite deliberately attempted to distance themselves from the medieval Latin tradition of this work, which was regarded as contaminated. Very much in the spirit of »back to the roots«, they strove for an understanding of the text that came as close as possible to Aristotle’s original intentions. Agostino Nifo, for example, states that he found himself confronted with a bewildering multiplicity of Greek textual variants, as well as with unserviceable commentaries which testified to their authors’ incomprehension, through which he was obliged to toil arduously before being composing his translation and its accompanying commentary. In his enterprise, he claims to have relied in essential ways on Alexander of Aphrodisias’s commentary, while on the other hand dismissing Averroe’s translation as »blattertias confusiones.« On the other hand, it has also been possible to ascertain that Nifo – not unlike other commentators, admittedly, including those of the *Nova expositio Topicorum Aristotelis*, published in 1559 by the *Logicae doctrinae professores* of the Academia Veneta – made continual references to medieval commentators, for example Albertus Magnus, often however only in order to distance himself from these critically.
1.2.3 Problems Pertaining to the Early Modern Exegesis of the *Topics*

a) Clarifications of Central Terms
Examples of such terms are *topos*, *syllogismos*, and *endoxon*. Concerning the term *topos*, circumscribed only vaguely by Aristotle as the »place from which the attack comes« (*Topics* VIII 1, 155b4–5), we are able to formulate the following summary of our investigations: in this context, the early modern commentators are oriented on the one hand toward Alexander of Aphrodisias’s commentary on the *Topics*; relying on Theophrastus, Alexander defines *topos* once as »arche e stoicheion« (»principium vel elementum«), then as »parangelma« (»preceptum«); then further, and in reliance upon Cicero’s determination of the term *locus*, via another metaphor, namely as »quasi sedes, e quibus argumenta promuntur«, together with the additional specification that the »argumenta« in the »loci« »inclusa sunt« (*Topica ad Trebatium*, §§ 7/8); and finally in reliance on Boethius’s differentiation of *locus* as »maxima propositio« and as »differentia maximae«, whereby Boethius to begin with presupposes Cicero’s definition of the term as »sedes argumenti«. Three different interpretive tendencies can be identified: in the first, the spatial metaphor which underlies the concept of *topos* is suppressed; in the second, it is accepted as well-established or self-evident that *topos* is to be understood metaphorically, whereby it is at the same time implicitly assumed that forms of argumentation are to be conceived of as spatial structures. Linguistically, we move here on the level of metaphors of space or movement. The reference is to the Aristotelian conception of physical space as the »immobile boundary of that which contains« (*Physics* IV 4, 212a20f). Third, we also find instances of explicit reflection on the metaphorics of space, which are designed to make its significance and function in the framework of the »ars dialectica« more easily understandable and to justify this significance. The question of the »Quid est locus dialecticus« leads initially to the realization that the concept of the dialectic is not »proprium«. This leads via a recourse to the Aristotelian conception of physical space – one dominant, at least during the Middle Ages, and retaining its actuality in the early modern period – as a »terminus continentis corporis, immobils primo.« Central here, furthermore, is the distinction between »locus« and »locatum«; the place/space, moreover, must be larger than its »contents«, and »locus« cannot be thought without »locatum«, and vice versa. Transferred to the »locus dialecticus«, this means that the »locus dialecticus« circumscribes or contains the argument (»comprehendit argumentum«), that it constitutes its boundary (»terminus«) or is (with recourse now to Cicero) its »sedes«, and that finally »locus« is not identical with the argument, but is instead more comprehensive. Moreover, the »loci dialectici« must be larger than the argument; a »locus« can contain a number of arguments. As with the »locus physicus« in relationship to the »locatum«, the »locus dialecticus« and the »argumentum« condition one another reciprocally. (The conclusions presented here are currently being summarized by Angelika Lozar for an anthology of texts scheduled to appear next year in a volume that originates with this project.)
b) The Relationship between scientia (Necessarily True Knowledge) and opinio (Opinion, Opinion-Based Cognizance)/fides (Conviction) or veritas and probabilitas/verisimilitudo

It is a question here in general of an epistemologically central problem of, the early modern era, namely a reevaluation to the effect that the domain of (in the broadest sense) »opinion-based cognizance«, i.e. of cognizance which is not necessarily true, was rehabilitated or revalued in ways that had recourse to an interpretation of the Aristotelian concept of endoxon. Forthcoming, meanwhile, are two publications dealing with this problem area: on the basis of selected Renaissance dialogues, Klaus W. Hempfer analyzes the shift of epistemic structures, concluding that »pluralization, as an epistemic process, separates »knowledge« from »truth«, with the consequence that »knowledge« is transformed into »belief« and/or »opinion«. In this epoch, claims to absolute truth thus become obsolete even where they are still raised sectorially.« (see HEMPFER 2010, 90); Angelika Lozar investigates Carlo Sigonio’s treatise De dialogo liber (see LOZAR forthcoming), where the epistemological function of dialogue plays a central role. With recourse to the Aristotelian Topics and the concept of endoxon formulated there, Sigonio defines the dialogue as a written reproduction of a dialectical disputation, one whose argumentation (just as in a dialectical disputation) is not based on scientifically secure premises, i.e. ones that are necessarily true, but instead on generally recognized premises. As a consequence, dialogue cannot and should not generate secure knowledge, but instead »opinion« (opinio) or »conviction« (fides), whose epistemic status, meanwhile, remains a matter of dispute. Sigonio’s objective is to ground opinio and fides not just as the legitimate, but at times even as the sole meaningful aims of knowledge. At the same time, he indicates the functions which can be attributed to dialectics and rhetoric in this epistemological conception.

c) The Relationship between Dialectics and Rhetoric

Standing in a direct relationship with the problematic outlined above under b) is the question of the relationship between the foundational disciplines of rhetoric and (topical) dialectics, a subject that is discussed extensively and as a rule in prominent locations, i.e. at the beginning, in all of the texts we have investigated to date. As suggested by the recent research (see TRANINGER 2010a, containing a summary of the current state of research), and as confirmed by our own investigations, this relationship is no longer one of simple opposition, but must instead be regarded in a more differentiated manner. On the basis of our textual analyses, it can already be asserted at this point that both of these disciplines converge within the views of the early modern authors (see also HEMPFER forthcoming a) in various departures from absolute claims to truth and in the constitution of a relativistic epistemology. It remains, meanwhile, to be determined in which regards rhetoric and dialectics overlap; which criteria of differentiation can be formulated; which other strains of tradition might can be superimposed upon the Aristotelian differentiation; and how »logical conclusions« are to be distinguished from »topical argumentation.« While mainstream research associates the transition from the Middle Ages to the Renaissance with the displacement of dialectics by rhetoric, we seek to substantiate the hypothesis that a topically modified dialectic was involved in founding a relativistic epistemology to the same extent as was rhetoric.
1.3 The Dialectic and Its Relationship to Dialogue as a Genre of Theoretical Discourse

Alongside the issue of the reception of Aristotelian *Topics* as outlined above, this complex constitutes the second core aspect of our investigations. For not just Sigonio, but Tasso, for example, as well, established an explicit link between the discipline of dialectics and the (literary) genre of the dialogue (»perché 'l dimandare s'appartiene particolarmente al dialettico, par che lo scrivere il dialogo sia impresa di lui«, Torquato Tasso, *Discorso dell'arte del dialogo*, 1586, §15). To date, this link has not been examined adequately. Klaus W. Hempfer turns his attention toward this issue in an essay in which he investigates the relationship between dialogue and dialectics on the basis of the theory of dialogue and the dialogues of Torquato Tasso. This text also elaborates on the sources of Tasso’s conception of and understanding of the dialectic. This text will appear in an anthology of texts originating from this project which is scheduled for publication next year.
2 Publications of the Research Group/Bibliography

**Green-Pedersen 1984**

**Hempfer 2009**

**Hempfer 2010**

**Hempfer forthcoming a**

**Hempfer forthcoming b**

**Lozar forthcoming**

**Malink 2008**

**Malink 2009a**

**Malink 2009b**

**Malink forthcoming a**

**Malink forthcoming b**
Malink, M. Forthcoming. »Figures of Prosleptic Syllogisms in Prior Analytics 2.7«. *The Classical Quarterly*. 
Malink – Rosen forthcoming c

Traninger 2010a

Traninger 2010b

Wagner 2009

Wagner forthcoming

Zini 2009

Zini 2010

3 Citation