Rhetorical figures as argument schemes – The proleptic suite

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Abstract. Identifying rhetorical figures with marginal to non-existent lexico-syntactic signatures poses significant challenges for computational approaches reliant upon structural definitions or descriptions. One such figure is prolepsis ($\pi\rho\delta\lambda\eta\psi\iota\varsigma$), which this essay charts out in some detail, addressing the challenges and the benefits of rendering such figures computationally tractable through the use of argument schemes with attention to metadiscursive or macro-discursive norms offered by pragma-dialectical traditions.

Keywords: Argument schemes, figures of speech, prolepsis, topoi, idioi topoi, computational rhetoric, argument mining

1. Introduction

Rhetorical figures are a highly important area of research for charting computationally tractable, and rhetorically sophisticated, arguments. Harris and Di Marco and their Waterloo computational rhetoric research group ([15,19,21,22,28]) have established important theoretical and computational frameworks to describe and detect figures. Figures, of course, are more than mere flourish in text. Rhetorical scholar Jeanne Fahnestock tells us that figures *epitomize* arguments in their form ([18]). While work charting rhetorical figures' computationally tractable forms has been made, these efforts so far focus on figures known as *schemes*. Schemes are one type of rhetorical figure with formal features of syntactical structure, morpholexical patterning, or phonological arrangement. Although it is sensible to begin with these figures because they provide clearer structures to map, another kind of rhetorical figure, called *tropes*, has been significant to studies of argument, cognition, and linguistic evolution. For example, an enormous interest was shown in metaphor in the latter twentieth century, in almost every humanities and social science discipline, and metaphor revealed much about figurative devices. Specifically, the appeal of metaphor as a point of scholarly interest is found in what it is able to tell us about how we think, reason, and argue. While metaphor has gained significant attention, and computational approaches to metaphor have been advanced (e.g., [49]), its functional characteristic of semantic departure from what Groupe μ has called "degree zero" language [16] affords metaphor certain tractability not all tropes have. Complicating matters, there are figures that have no function as either schemes or tropes, and historically have inhabited a more amorphous miscellaneous category of figures called "rhetorical figures of thought," which are taken up in various ways by the Waterloo Figure Taxonomy categories of *chroma* and *move* [10,26]. These types of figures pose significant problems for tractability, and chief among the difficult cases is a figure called *prolepsis*.

Tropes and figures of thought (chroma, moves) lack the kind of obvious formal linguistic features we can identify in schemes. As one might expect, identifying rhetorical figures with marginal to non-existent morpholexical-syntactic signatures poses significant challenges for computational approaches reliant upon structural definitions or descriptions. In an effort to formalize tropes and figures of thought, as a strategy to make these important figures computationally tractable, this article begins to address the challenges and the benefits of mapping such figures through the use of argument schemes and attention to metadiscursive or macro-discursive norms offered by pragma-dialectical traditions and the Polish School of argumentation. The challenges are worth it: the rewards are substantial. Prolepsis is a widespread and effective argument strategy. Further, and putting this strategy into practice methodologically, this essay suggests an approach to extracting arguments, following problems charted in Walton [55].

Prolepsis can be understood both as a rhetorical figure and as an argument strategy; or, as I will argue, several related but distinct argument strategies (hence, *proleptic suite*). A figure of anticipation, prolepsis aids the construction of some future event or moment in present-minded, concretized terms, a kind of foreshadowing or predicting. The term "construction" here is carefully chosen, as the figure is taken to be generative of the conceptions formed – not mere stylistic dressing. Consider Rachel Carson's illustrative warning about the effects of chemical pesticides, in her iconic opening chapter from *Silent Spring*, "A Fable for Tomorrow," where she offers a narrative account of a civilization arrested by its own ill-conceived development [9]. Civilization has destroyed not only itself, but also the natural environment within which it was situated and upon which it was so dependent. Here prolepsis is illustrated through a cautionary narrative, as Carson anticipates environmental destruction resulting from use of chemical pesticides.

Carson's vivid fable underscores why prolepsis is so interesting for argument studies: prolepsis marks certain argument strategies that are put to work to achieve rhetorical effect. Carson wants chemical pesticide use reconsidered and her narrative provides the justification. Prolepsis provides the crux of the argument in the narrative strategies employed in an effort to move readers to her position, one that acknowledges the dangers of pesticide use. Prolepsis also provides us with insight about why such rhetorical strategies are effective. Oakley writes,

> Prolepsis – representing the future in the present – names much more than a verbal trick: it implicates attention and memory as fundamental cognitive determinants permitting the dialectic interplay of the here-and-now and the there-and-then [37].

While prolepsis implicates attention and memory in particular ways, so too do the figures of analepsis (flashback) and enargia (vivid description), both of which often work closely with the figure of prolepsis, among others. Prolepsis activates a cognitive response that structures human response to a particular unknown future event and then draws upon rhetorical knowledge and constraints of the situation to articulate a reasoned response – an argument.

In this essay I chart prolepsis from antiquity into modern usage to demonstrate how rhetorical figures can be used to expand the theoretical and applied reach of argument schemes to create computationally tractable solutions for argument detection/extraction. Importantly, this work plots the figure's multiple variations, which may appear, at first, as a sorting error, but is rather a byproduct of complex instantiations of the figure. Further, this work brings together a tradition of research into rhetorical figures and their argumentative functions (tracing along Fahnestock [18] and Harris's [28] paths in particular), with research using rhetorical figures for natural language – linguistic – processing, and the important research in argument schemes, at the intersection of philosophy, rhetoric, and computer science. Using an interpretive rhetorical approach, with illustrative empirical examples, I advance a preliminary case of

using rhetorical figures to augment argument schemes, expanding the repertoire of informal logics used in every-day arguments. My representative figure is prolepsis. The empirical examples I use are drawn from a number of different domains to illustrate the wide applicability of the figure. The implications for argument schemes provide a vast well from which to draw every-day argument structures that have been studied and categorized across two millennia and many languages and cultures.

2. Foundations for special argument schemes

2.1. Prolepsis and rhetorical figures

The terminology of rhetorical figures is highly inconsistent. A single linguistic pattern will often have several different names; a single name may be associated with several different patterns. Prolepsis is a prime example. It has several definitions and a range of examples over the millennia, often implicating a set of closely related figures, although indeed distinct figures insofar as their rhetorical strategy and function operates. In the following account I delineate three types of prolepsis (Table 1).

By charting different uses of the term *prolepsis* it is possible to uncover several argument schemes [54], which helps explain why rhetorical figures can be valuable to development of arguments schemes, but also how they pose challenges to developing computationally tractable forms.

A Latinized Greek word translated most directly as "anticipation" (that is, a nominalization of "to anticipate"), *prolepsis* (πρόληψις) has traditionally been seen to operate at both the sentence level and the discourse level. For operation at the sentence level, *The Encyclopaedia of Rhetoric* offers perhaps the clearest definition:

> a permutative metataxeme [that] anticipates the logical relations of consequences in a sentence (which are the result of the predicate) by means of an attributive adjective or participle that functionally represents an assumed consecutive clause or gerund [25].

That is, an alteration of sequence such that when event-x precedes event-y temporally, event-y precedes event-x syntactically. Grün-Oesterreich gives the rather tortuous example from Shakespeare, "To break within the bloody house of life" (*King John*, 4.2.210) [25,47], explicating it like this:

> The correct logical reconstruction of [this example] is "To break within the house of life [the body] and make it bloody [for example by a dagger]."

But a more obvious example, also gruesome, might be the John Keats's lines from "Isabella" [2,25]:

> So the two brothers and their murder'd man Rode past fair Florence. . .

Temporally, the brothers have not yet murdered the man with whom they are riding past fair Florence. This example, too, reminds us that figures all manifest in ordinary language (which is why degree-

Table 1

The proleptic suite

Figure name	Description	Representative figures
Prolepsis (*Occupatio*)	Anticipation and rebuttal of an opponent's argument.	Procatalepsis; *Prolepsis*
Prolepsis (*Ampliatio*)	Future anteriority, a certain declaration/prediction of future events.	Prolepsis; *Ampliatio*
Prolepsis (*Praemonitio*)	Presage, a forewarning of potential future. Often an undesirable portent, but may have a positive valance.	Præmonitio

zero language is an idealization), as in the common expression for a prisoner on death row, "dead man walking."

While the understanding of the syntactic nature within which prolepsis might be rendered manifest through verbal form is valuable, later efforts expand the figure's reach to include the conceptual and persuasive features of *proleptic argument*.

For the operation of prolepsis at the discourse level, Christopher Tindale provides the most precise definition: "the anticipation of objections to one's position and a preemptive response to those objections" [53]. As an example, consider Nicholas Carr's observations on reading practices:

> Thanks to the ubiquity of text on the Internet, not to mention the popularity of text-messaging on cell phones, we may well be reading more today than we did in the 1970s or 1980s, when television was our medium of choice. But it's a different kind of reading, and behind it lies a different kind of thinking – perhaps even a new sense of the self. "We are not only *what* we read," says Maryanne Wolf, a developmental psychologist at Tufts University and the author of *Proust and the Squid: The Story and Science of the Reading Brain*. "We are *how* we read." [8]; example suggested by [24].

Carr, who is building a case on how the Internet degrades literacy, anticipates the objection that since digital technologies have increased the amount of reading we all do they cannot be decreasing our ability to read, and counters it by shifting the focus from the quantity of reading to the quality of reading.

Both of these usages, syntactic and discursive, show up in the Anglo tradition with Bede's eighth-century *De Schematibus et Tropis*, a treatise concerned with stylistic features in the Bible. Bede's work cannot be described as particularly original, but it is valuable for connecting the treatment of prolepsis in antiquity with an emerging English scholarly culture.[1] Prolepsis, Bede tells us, is a figure concerned with "anticipating or taking up in advance" and evidenced in syntactic placement when "those things which ought to follow are placed ahead" (Bede in [52]). Providing examples from the Psalms, "*And it came to pass in the thirtieth year*" from Ezekiel, Bede tells us that, with no introduction "He has used a connective word ["and"], yet put nothing ahead of it to which this word might be joined"[2] [52]. This patterning can be extended from syntactic placement to patterns of reasoning. In that abstraction from syntactic configuration to discursive patterns, prolepsis as anticipation, as fundamentally concerned with the temporal ordering of thought, is revealed. There is no sign of preemptive response, however, as Tindale terms it, either in Bede's definition or its associated examples. Soon, this response, a rebuttal, comes to be criterial in the rhetorical and argumentative traditions. Temporal structuring, rather, is the only defining feature for Bede. In the first English-language treatment of the term, Richard Sherry provides a definition that further underscores the importance of temporal order. He writes:

> [p]*resumpcio* [or, prolepsis], a takynge before, or generall speakynge of those thynges whych afterwardes be declared more perticulerlye: as, in the meane seasõ that kyng Henry rode royally to Calais on a sumpteous courser, Lewes in a gorgeous chariot was caried to Boloygne [48].

Here, prolepsis is characterized as a figure of construction deviating from normal expectations, occurring "when the order of construccion is otherwyse then after the comen maner" [48]. The schematic focus

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[1]Written in Latin, Bede's work marks the first of such handbooks of figures written by an Englishman, in the tradition of "stylistic rhetoric" [52]. Further, "[p]rior to Bede it had been customary to depreciate the language of the Bible" by those close to ancient rhetorical learning. Bede, situated in Norththumbria, had no such obligations to the Roman Empire [52]. Despite this notable achievement by Bede, much of the definitional work he offers is recycled, drawing from Donatus's *Ars Grammatica*, as well as from Isidore's *Etymologiae*, Cassiodorus's *Expositio in Pasalterium*, and Julian's *De Vitiis et Figuris* [52].

[2]Ps. 87:1, 22:18, and Ezek. 1:1, are all examples provided by Bede [52].

of such a classification narrows the figure to its verbal instantiation, but still marks a process of thought primarily concerned with temporal ordering.

In modern scholarship, the notion of refutation becomes definitional. Perelman and Olbrechts-Tyteca are instrumental here, both for their treatment of prolepsis and for their view of figures as argumentative. They make a distinction between "an embellishment, a figure of style" – that is, the default view of *all* figures by the twentieth century – and argumentative figures [42], figures that potentially affect the audience's rational perception of a standpoint. Their treatment of prolepsis in *The New Rhetoric* first posits that when "a speaker introduces objections into his sentence in order to answer them himself, we have a figure of speech, prolepsis, which is simply a feint" (169). Later they note that when "anticipatory refutation takes the form of an objection to the speaker's own argument, it can give rise to *prolepsis*, [this time seen as] a figure which has a *definite argumentative connotation*" (emphasis mine) [42]. Tindale, leaning on Perelman and Olbrechts-Tyteca, writes that the significance of prolepsis "lies in its importance to dialectical argumentation" through the "anticipation of objections" [53]. Clauss has also made a significant effort to situate prolepsis *as argument*, and not only "feint," but he develops his theoretical discussion around one of prolepsis's partial synonyms, *procatalepsis* – a term we will see again as "prolepsis-occupatio" in the discussion of the proleptic suite below [12].

2.2. Meta-context and argument schemes

The Polish School of Argumentation and the Pragma-Dialectical framework have both identified the importance of bringing together descriptive accounts of argumentation with conventional or normative accounts. Allowing for a departure from more formal models of argument, this approach aligns with rhetorical accounts of argumentation that dwell in particular situations and unfold between rhetor (speaker or writer) and audience. Indeed, the mapping between this approach and rhetoric is most striking in rhetorical genre studies, where influence from speech-act theory is a common heritage, and attention to "macro-contextual dimensions" is a common enterprise [5].

It might seem cumbersome to add this metacontext to the already conceptually dense work of combining figuration and argument schemes, but there is a useful and important point of intersection here, rooted in Aristotle's program of argumentation topoi. That program, which inspired the current theory of argument schemes, provides a rich resource for macro-contextual dimensions in the division of common and special topics, which will bring us back to the matter of figures and genre.[3] But a brief aside for the business of common and special topics and their significance to argument schemes is warranted.

Aristotle gave us two sets of topics: common and special. Common topics (*koinoi topoi*) are those that have been adapted, in part, for the purposes of argument schemes. These topics are concerned with form rather than content, which is sensible insofar as the ability to keep relatively abstracted principles to be applied across a multitude of rhetorical contexts. One can use the topoi to argue in the courtroom, in the assembly, in the marketplace, in the laundry room. Any argument might be structured, for instance, in terms of contrast, or comparison, or genus and species. But even the common topics fell out of favour, after the late classical period (the last major work coming from Boethius [3,4]); even such Aristotelian disciples as Thomas Aquinas no longer noticed the topoi, and only in the last several decades have they again gained traction in rhetorical theorizing. Although the common topics provide, as argument schemes demonstrate, a useful basis for studying everyday reason and argument, they do not fully engage macro-contextual dimensions or ways to understand those dimensions. In Greek antiquity these kinds

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[3]See Gladkova, Di Marco, and Harris for a charting of special topoi (with their interest in knowledge-generation, they call them *epistemic topoi*) in ophthalmic clinical research [22].

of macro-contextual concerns were treated with the lesser-regarded "special topics" (*idioi topoi*). These topoi were not applicable wholesale, as the common topics were, but only to specific argument fields – physics, medicine, economics. Through neglect and sometimes-outright dismissal, the special topics were relegated to some prescriptive handbook rules and remained theoretically underdeveloped [33]. There are various reasons for this [33], but what is important here are the issues raised by special topics.

For Aristotle the special topics were distinct from disciplinary knowledge, but in constant danger of slipping into disciplinary knowledge, and as they lost favour their distinctions and use allowed a certain granularity to escape any theoretical commitments to common topics. Special topics would allow for granularity by providing a system of reason and argument grounded in meta-contextual dimensions, relative to the kinds of communicative domains described by pragma-dialectic traditions, including medical, scientific, or legal. This is useful, and so special topics or a revived version of special topics becomes important. Miller argues as much:

> [W]e find in our environment an indeterminate number and variety of recurrent rhetorical situations – those arising, for example, not only in political affairs, but also in business, industry, government, and the mass media (as well as the academy). The principles underlying Aristotelian special topics suggest that such topics have three sources: conventional expectation in rhetorical situations, knowledge and issues available in the institutions and organizations in which those situations occur, and concepts available in specific networks of knowledge (or disciplines). Any of these can serve as conceptual places that yield arguments possibly useful in a rhetorical situation related to the genre, institution, or discipline [33].

What Miller is advocating for is "generic special topics" [35], where generic refers to the notion of rhetorical genre, a "typified rhetorical actions based in recurrent situations" [32].[4] Genres can be typified across a very wide context, such as "the sciences." John Swales, for example, focused on introductions in scientific articles across disciplines [51]. So a combination of genre and something more particular would be fruitful to identifying kinds of arguments with more granularity. Here is where rhetorical figures become particularly useful.

Harris has argued that rhetorical figures travel together for particular contexts, and Fahnestock has shown figures are implicated in certain kinds of logic in particular disciplines; Fahnestock's work is especially rich for the way she traces the early links between topoi and figures in the ancient understandings coming out of Aristotle. Topoi, in her recovery of the ancient tradition, are general patterns of argumentation, and figures, at least some of them, epitomize those patterns. Harris and Fahnestock together suggest that by identifying particular kinds of rhetorical figures found in different disciplines or contexts (identified by the genres used in these contexts to tie the idea of "context" to a real-world, recurrent rhetorical activity) [18,26] (see also Tindale [53]), then we are likely to generate lists of special topics across these contexts (as argument schemes). Thus, we find in Aristotle's original idea that the

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[4]Rhetorical genre, since the late 1980s, has seen a prolific expansion and the history is certainly of value to this discussion although too cumbersome for this paper; Miller and Kelly [now Mehlenbacher] offer a recent account of genre studies broadly and rhetorical genre studies in particular [34]. In short, rhetorical genres treat both meta-contextual dimensions as well as formal features of texts. Take, for example, the example of tax documents [14]. These documents are typified in their form and their use responds to a recurrent rhetorical situation (submitted tax filings). Of course this is a simplified example, but the essential idea here is that different industries, sectors, organizations have identified kinds or genres of text and this is useful because we can learn something about the kinds of arguments that might appear in different texts and contexts. For an application of genre in computational rhetoric, albeit rather different than the approach suggested here, see Gladkova, Di Marco, and Harris [21]. What genre offers is a way to systematically organize text types and their formal features as situated in particular disciplines or contexts. This is important because it helps us understand the context for arguments, the kinds of formal features that will shape how and where arguments are presented, and also the kinds of meta-contextual dimensions shaping those arguments.

special topics lie somewhere between the common topics and disciplinary knowledge. For example, and as I will detail below, prolepsis is common in environmental rhetoric. It makes sense that the kinds of arguments found in environmental discourse concern the future and planning to ensure a sustainable and livable world; both anticipation of what is to come and "rebuttals" of dangerous or catastrophic futures are touchstones of environmental discourse. However, prolepsis is certainly not confined to environmental discourse. Nor is it discipline-specific in any way. Thus, identifying special topics to develop granular argument schemes begins with locating rhetorical figures, in particular kinds of text, and relating those to particular meta-contextual dimensions such as disciplines.

The foundations of argument schemes in classical rhetoric provide an opportune site to explore the possibilities of rhetorical figures in computational argument studies. The shared historical, theoretical, and epistemological site of course is not so heterogeneous after over two millennia of theorizing, but the foundations remain strong enough to provide a basis for such work as is proposed in this essay. To this point, Walton's argument schemes draw from Aristotle's topics onward – through related traditions – and (pace Fahnestock) rhetorical figures align nicely with such efforts.

2.3. Figures and argument schemes

Expanding the range of argument schemes by exploring rhetorical figures across genre or meta-contextual dimensions offers a useful way to achieve somewhat more granular argument identification and extraction. Walton and Reed note the importance of granularity insofar as we can identify everyday arguments [56], and Godden and Walton expand on this position agreeing that

> argument types, simple enough to be effectively taught and usefully applied in analysis, fine-grained enough to be effective as ... evaluative tool[s], rigorous enough to be implemented in automated models and clear enough to be integrated into traditional diagramming techniques [23].

Further, they argue that such "a typology should reflect distinctions among arguments made at an intuitive, common-sense, or pre-theoretic level by everyday arguers" [23]. Rhetorical figures are a productive way to expand these studies, achieve granularity, and articulate the theoretical rationale for what makes something an "intuitive, common-sense, or pre-theoretic" argument [23]. The theoretical underpinnings, which cannot be treated in this paper in detail, can essentially be boiled down to two major contributions: one on the social side, addressing how discourse communities evolve certain acceptable argument types, and on the other side, the cognitive affinities marked by rhetorical figures (see, for a brief accounts of the latter, [10,27]).

The study of figuration also helps to address questions of taxonomy. The history of figuration is littered with attempts at taxonomic systematicity, which collectively have left us, as above, with a twisted pile of disjointed terms and definitions, plagued with one-many and many-one problems (one form, many names; many forms, one name). This jumble is partially a consequence of multiple linguistic traditions, with a welter of Latin and Greek synonyms, partially a consequence of pedantry, with different spellings and etymological kluges, partially a consequence of different theoretical commitments, with aesthetic, psychological, and functional commitments cutting the figurative cloth in different patterns, partially a consequence of plain old linguistic drift, with terms expanding and contracting or dividing and amalgamating in seemingly random ways, as words will; and, sympathetically accounting for cases treating complexities and challenges in categorizing figures, partially it is just centuries of carelessness. *Prolepsis* has not been immune to these processes.

In accounting for the frequent discrepancies between systems of cataloguing figures, Fahnestock cites the distinction between "verbal forms and discourse functions or speech acts" as a primary concern in

taxonomy construction [18]. Attention to either verbal form or discursive function alone will certainly provide differing conceptual pillars on which to build any system of classification. Often such unbalanced attention is apparent, as Fahnestock argues, by way of definitional work and classification of figures. Figures are defined and classified carefully either on the basis of their linguistic/verbal form or by way of their rhetorical effect [18]. Fahnestock argues that the ideal approach to compendiums of figures would be to account for both linguistic *and* persuasive effect. Of course, as Fahnestock identifies a particular group of figures, schemes, as having relatively clear descriptors in both domains, there are figures that do not have these features. Namely, tropes lack formal structures. However, argument schemes can contribute to studies of rhetorical figures by providing mechanisms identifying formal features of tropes and figures of thought, such as the structure of the argument itself.

One project to find some consistency in figuration – a necessity if figures are to be brought into computational tractability – is the Waterloo RhetFig Ontology. In its terms, we might be tempted to categorize prolepsis in its syntactic operation as a scheme, while recognizing that in its discursive operation, it is a move (another term, admittedly, that has referential complications). In the RhetFig project, all figures can be seen as "deviations" of some hypothetically perfect blandness of language that Groupe μ calls "degree-zero language" [16] – perhaps best understood in terms of Chomsky's "ideal speaker-listener, in a completely homogeneous speech-community" [11]). Schemes, in this framework, are identifiable formal patterns deviating from the most routine default configurations in the language – for instance, a syntactic order in which words occur in the temporal order that their referents occur. It would be natural, therefore, to say that "syntactic prolepsis" deviates from this order, and to distinguish it from a "discourse prolepsis" that we can classify as a move.

Moves,[5] in the RhetFig framework, are identifiable discourse strategies deviating from some presumed default discourse patterns – for instance, a narrative order in which narrative events are related in the temporal order the events occur; or an argumentative order in which pro-arguments are spooled out in a linear flow, unconscious of any counter-arguments. Degree-zero speech is monologic signal production (again, classic Chomskyan grammar is the paradigm), so, "temporally," a counter-argument can only come in this idealization with another speaker. So, we might say that "discursive prolepsis" deviates from this temporal order by "reaching forward" to another speaker.

But such an analysis gives too much weight to rather minor morpholexical-syntactic features. It makes more sense to see all prolepsis as manifesting an argumentative strategy of anticipation, with various reflexes. This follows the RhetFig policy of taxonomy by prototypicality rather than by necessary and sufficient features. This is not an uncommon policy. Simile, for instance, is widely considered to be a trope (that is a deviation from degree-zero denotation), despite the obvious morpholexical-syntactic presence of words such as *like* or *as*, and their phrasal requirements. Prolepsis construed in these terms, for instance, would not distinguish Keats's admittedly more elegant "two brothers and their murder'd man" from "two brothers and the man they would later murder." We certainly can distinguish them, in terms of rhythm for instance, and imagery (a murder'd man who is riding is metaphorical), but not on the basis of prolepsis. In both versions we have the anticipation of a future murder brought into a discursive present; that is, we have prolepsis.

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[5]To be distinguish from other uses of "move" in linguistic and allied fields – most notably, perhaps, to be distinguished from uses by John Swales and others working in genre studies traditions, particularly English for Specific Purposes – though these different uses are not without potential for mutual accommodation.

3. The proleptic suite: Preliminary map for special argument schemes

Following Harris and Di Marco's work on a "chiastic suite,"[6] discussing the different uses of several reverse-repetition figures that have often just been called *chiasmus* in the figurative tradition, this section charts different uses of the anticipatory(-rebuttal) figures that have been called *prolepsis*. The importance of this work is two-fold: first, rhetorical figures' long history and appearance in handbooks across two millennia means their definitional sources are varied and thus careful attention to their descriptive or functional forms must be attended to; second, rhetorical figures reveal the multitude of subtle differences in argument form at the morpholexical-syntactic and semantic levels of argument, differences often unnoticed by a human audience, and certain to introduce ambiguity for a computational process. In turn are three uses of prolepsis, one with a clear structure of anticipation and rebuttal, distinct from the latter two, and two with overlapping but distinct forms of presaging as argument. This leaves us with three argument schemes we can map, roughly correlating to each figure. To clearly distinguish between uses that were conflated, but not confused, in the long history of charting rhetorical figures we will give each configuration a qualifier: prolepsis-occupatio, prolepsis-ampliatio, and prolepsis-praemonitio.

3.1. Prolepsis-occupatio: Prolepsis as anticipation and rebuttal

While the terminology is uneven, anticipation AND refutation of an opponent's argument – discursive prolepsis – is more accurately aligned with *procatalepsis*, the term we will now adopt for this pattern, leaving anticipation WITHOUT refutation to *prolepsis* alone.[7]

Procatalepsis (literally 'seizing in advance') is the rebuttal or refutation of anticipated arguments. It is important, when considering such a figure, to attend to those that seem related. The great number of figures means there are many figures that have similar functional features, but that necessarily remain distinct from one another for formal reasons. There is no full catalogue of refutation figures, but there are certainly several more. Take, for instance, metastasis ("after stasis," "after steadiness,") best exemplified by the famous remark then-incumbent US President Ronald Reagan made during a 1984 debate with his much younger opponent, Walter Mondale, Reagan said "I will not make age an issue in this campaign. I will not exploit, for political purposes, my opponent's youth and inexperience" [7]. Here Reagan does not literally anticipate his opponent's argument – he evokes, rather than specifies, a counter-argument to his fitness as president that had been circulating around the campaign – but he effectively and humourously inverts that counter-argument refuting the proposition that the 73-year-old Reagan was too old for a second term.[8] Prolepsis, that is, is but one of many figures of refutation, but it is a crucial figure for this function because it provides the basis to discount a counter-argument before it is ever launched,

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[6]See Harris' talk "Cognition, Computation, and Chiasmus; Chiasmus, Computation, and Cognition" at the 2016 Computational Rhetoric Workshop: http://computationalrhetoricworkshop.uwaterloo.ca/.

[7]The unfortunate conflation of prolepsis and procatalepsis is largely the result of the handbook tradition of cataloging figures, one after another, in a taxonomic arrangement. In such cases prescription and proscription of figures' use in these handbooks can be traced to a few exemplars of the genre and then perpetuated across derivative manuals of style.

[8]Some of the other figures of refutation include erotema ("to question," often known as a "rhetorical question") refuting a point by asking it as a question), dicaeologia ("a plea in defence"), admitting a fault or guilt but refuting the problem based on necessity, and meiosis ("lessen," often mistakenly labelled *litotes*), a strategic understatement to illustrate something's significance. Figures often have a small cluster of functions, and these are not the only ways that erotema and meiosis are used; nor may it be the only ways in which metastasis and dicaeologia are used. There is much work to be done. But a full catalogue of refutation figures would be a valuable addition to computational rhetoric generally, argument mining specifically.

allowing the rhetor to take an offensive position.

One of the earliest texts in the handbook genre, *Rhetorica ad Alexandrum*, offers an account of the rhetorical strategy of anticipation. In *ad Alexandrum*, anticipation is divided up into various types to be mastered by the up-and-coming rhetor. First, the audience's objections must be anticipated and re-butted [45]. After anticipating and rebutting possible objections by one's audience, one must anticipate possible objections from opponents [45]. Both of these examples of anticipation are concerned with the exemplar forensic rhetoric, the courtroom. Further – and this is important for the classification of procatalepsis as a move – anticipation is explained as a rhetorical strategy, not in its verbal execution alone.

Following the *ad Alexandrum*, "prolepsis" is further treated primarily as the anticipation and sub-sequent refutation of counter-arguments – in Quintilian (c.95 C.E.), Wilson (1560), Smith (1665), Norwood (1724), Gibbons (1767), and De Mille (1882), to name the more prominent treatments ([13,20,36,44,50,57]). In all of these treatments there are two rhetorical maneuvers. First, anticipation of possible counter-arguments is required and, second, a rebuttal to those arguments. The latter part of this rhetorical strategy describes a very different maneuver than anticipation alone and its importance to forensic and deliberative rhetoric especially, has probably led the rebuttal function to swamp the antici-patory function for these rhetoricians.

With matters of translation built upon questions of the literal versus the figural, Bullinger sets out to study and reason through how rhetorical figures function in the Bible and the implications of such figures. Bullinger categorizes prolepsis as a figure involving change that affects "the application of words" in relation to time [6]. "Prolepsis (Ampliatio); or, Anticipation" traces prolepsis to its Greek roots, meaning "a taking beforehand, anticipation" and "is so called when we anticipate what is going to be done, and speak of future things as present" [6]. This definitional work sets up an important contrast we have already seen. Bullinger elaborates:

> The name is also given to the Figure when we anticipate what is going to be said, and meet an opponent's objection. But that *Prolepsis* is distinguished by the further description "*Occupatio*"; because, in that case, the opponent's objection is not only anticipated, but *seized* and *taken possession of* (as the word means).
>
> Whereas *Prolepsis* – when it anticipates time which it cannot *hold* or *keep possession* of, but has to *defer* it, after having anticipated it – is distinguished from the other by the word "*Ampliatio*," which means *an adjourning* [6].

Bullinger is especially useful in his etymological work with the various synonyms and partial synonyms that have aggregated around the prolepsis-occupatio tradition, he cites procatalepsis and apantesis (from the theological tradition, literally "to meet") of Greek origin and occupatio ("occupation"), anteoccupa-tio ("prior occupation"), or præmonitio ("forewarning," "premonition") [6]. Prolepsis-occupatio aims to "anticipate what is coming" and also "*occupy and deal with it*" [6]. Prolepsis-occupatio, then, describes prolepsis as anticipation and refutation – this is prolepsis as synonymous with the rhetorical figure pro-catalepsis.

For procatalepsis, then, Actor *a* responds to an imagined or real opponent (*o*) to suggest that propo-sition B refutes proposition A, which was advanced by *a*, and then demonstrate that B does not in fact refute A. Written as an argument scheme, we have,

> Major Premise: *a* suggests *o* will argue B to refute A.

> Minor Premise: *a* asserts that *o* is wrong.

Conclusion: B is false.[9]

Let us consider several examples of this argument scheme in an effort to develop critical questions (the elements of the anticipation function are underlined, *of the refutation function, italicized*):

> [I]f you asked [Trump's] supporters right now, it would be really hard for them to describe what exactly they were going to do. He says he's great at making deals. But, as I pointed out, *I don't know a lot of people who operate a casino and manage to lose almost a billion dollars in one year. Usually, the house wins. You know that saying – the house always wins? Unless he owns the house; then it loses a billion dollars* [39].

This is not direct anticipation, but the inference is clear. Based on a recurrent Trump theme of citing business success, which Obama is suggesting is a fiction, and thus the argument Trump's supporters (*o*) hypothetically offer is weak or false. Obama refutes a projected counter-argument, based on a topos that his target, Trump, draws upon with some frequency. Another example from Obama:

> If you ask many of the opponents of this law what exactly they'd do differently, their answer seems to be, well, let's go back to the way things used to be.

> Just the other day, the Republican Leader in the Senate was asked what benefits people without health care might see from this law. And he refused to answer, even though there are dozens in this room and tens of thousands in his own state who are already on track to benefit from it. *He just repeated "repeal" over and over and over again. And obviously we've heard that from a lot of folks on that side of the aisle.*

> Look, I've always said I will work with anybody to implement and improve this law effectively. If you've got good ideas, bring them to me. Let's go [38].

Again, this move is complicated, as it abstracts past arguments to anticipate, and then refute, related arguments. It is an interesting evolution of the figure in an era where time is marked differently, where its passage and traces are faithfully recorded with transcripts and video recordings. Yet, the structure of the anticipation and refutation remains crucial to the argument move.

Argument mining, of course, is not just concerned with detecting rhetorical actions in texts – a prospect for which the prolepsis suite offers considerable challenges – but with evaluating those actions, so it is good to keep in mind critical questions for rhetorical figures. For Procatalepsis, Anticipation and Rebuttal, these criterially include:

1. Does *a* have reasonable grounds to raise *o*'s anticipated opposition?
2. Is *a* more credible to an audience than *o*, or have the potential to gain more credibility?
3. Does *a* refute a position *o* is *likely* to raise?
4. Does *a* directly refute the premise they raised?

The argumentative potential of anticipation as described in *Rhetorica ad Alexandrum* is realized through the rebuttal, but I wish to argue that an equally powerful argumentative strategy can be found in anticipation's ability to articulate potentialities – whether they are to rebut or not. Within these accounts of prolepsis, there is a subtler dimension to this rhetorical figure and that is its function as at once foreshadowing, anticipating, and articulating a future not yet written.

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[9]See Tindale, page 85 [25].

3.2. *Prolepsis-ampliatio: Prolepsis as future anteriority*

Literary forms famously capitalize on this mode to foreshadow events or character developments, but there are argumentative uses as well. In this account, prolepsis makes its impact as an argument strategy by anticipating and establishing future fact. "It is one of the most felicitous" figures, writes Macbeth (1875) in his description of "anticipation," a figure he claims has not before been catalogued [31]. Macbeth's prime example is the one from Keats above. "The murdered man," Macbeth tells us, "has not yet been slain, but his death is planned; a glare of the ghastly is thrown over the whole passage" [31]. Lanham later provides another mortal example, from Robert Browning's "Incident of the French Camp," which reads, "'You're wounded!' 'Nay …I'm killed, Sire!'" [29]. While the literary employment of anticipation here is an effective example, what is crucial to notice is that there is not only *anticipation* of the man's death, but it is also understood, in a kind of temporal collapse, as though his death already come to pass.

E.W. Bullinger, an idiosyncratic but high-granularity rhetorician, describes prolepsis as "[a]n Anticipation of some future Time which cannot yet be enjoyed: but has to be deferred.… . The Figure is so called when we anticipate what is going to be done, and speak of future things as present" [6]. Prolepsis here is a pragmatic discourse strategy that anticipates some event, treating the event as a matter of future fact – something which has yet to occur but is certain to occur. In sum, prolepsis foretells. Prolepsis-ampliatio (recall the distinction between Bullinger's types of prolepsis from Section 3.1) concerns presaging, anticipating, but not refuting. Instead, this figure offers a strategy of imaging potentialities in the most proximal terms that a future can be imagined and shared while discursively instantiated in the present. Bullinger offers excellent examples wherein prolepsis-ampliatio applies but prolepsis-occupatio cannot, namely in Biblical narratives. For example, in Genesis 1:28, "Be fruitful and increase in number; fill the earth and subdue it," is an example of prolepsis, Bullinger tells us because, "both our first parents as then already present, though the bolding of Eve did not take place till the time spoken of in chap. ii. 20–23" [6].

While these examples are helpful in illustrating the basic argumentative structure of prolepsis, Bullinger's turn to examples drawn from millennial days is of particular interest here. Psalms written "for use in millennial days" employ the basic proleptic structure that Bullinger has outlined above.[10] "The Lord does not now reign in the special sense and manner definitely spoken of and described in these and similar Psalms," Bullinger writes, and so "[w]e use them now (by way of application and) by *Anticipation* or *Prolepsis*. But the day is coming when they will be used literally, and be true by a real interpretation to the very letter" [6]. The first part of the prolepsis, in this example, relies on the premises that the Lord does not in fact literally reign at present. However, at some point in the future – millennial days – the Psalms state the Lord will literally reign, as has been *anticipated* or foretold in the first half of the argumentative structure effected in this prolepsis. Bullinger summarizes, "Only by the use of this figure can we sing many of the hymns which are put into our mouths, when they speak of future heavenly realities as though resurrection had already taken place; which it has not" [6].

With prolepsis-ampliatio, actor *a* asserts the proposition that A is an event that will occur by stating it has occurred in the future, and is thus unavoidable. Written as an argument scheme:

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[10]Bullinger also provides an example from Exodus X29 with the final departure of Moses from the Pharaoh, to who Moses would later see. Also Isaih. Xxxvii 22 (914). Bullinger cites three example of such Psalms "that commence 'The Lord reigneth': viz., Pss. xcii., xcvii., and xcix" (915).

Major Premise: *a* asserts that A future event has already come to pass.

Minor Premise: *a* asserts A is a certainty.

Conclusion: A will occur.

A particularly famous example of this kind of future anteriority is Robert Oppenheimer's (purported) response to witnessing the detonation of Trinity, the first atomic bomb, which he was instrumental in completing, quoting the Bhagavad Gita saying,

Now I am become Death, the destroyer of worlds [40].

Setting aside the somewhat antiquated perfect present construction of "I am become," the example illustrates Oppenheimer's presaging of the effects nuclear weapons would have on the world, taking these effects as already having come to pass. In the unstated premise his argument inhabits a future world where he is responsible for catastrophic disaster illustrating the kind of literary inclinations of this instantiation of prolepsis.

Critical questions for Prolepsis as Anticipation (without Rebuttal):

1. Does *a* have special knowledge to suggest accuracy in their prediction?
2. Is the basis for the portent grounded in an anticipation the audience finds plausible?

3.3. Prolepsis-praemonitio: Prolepsis as Presage

We might imagine the different ways in which prolepsis could be socially evoked in a proposal for marriage (and the imagined life those two people), a grant application (describing not only the work to be done, but imagined conclusions and implications), utopic or dystopic fiction, or such movements as the anticipation of Y2K computer glitches at the turn of the century, and the so-called "prepper movement" in the current United States comprised of individuals who anticipate economic collapse. Much political rhetoric around scenarios of change is also proleptic in this sense (such as that associated with the 2008 Obama slogan "Yes we can," and the 2016 Trump slogan "Drain the swamp"). All these possible situations gesture toward another critical component of the rhetorical suasiveness of prolepsis, the effective manifestation of this conception is accomplished through proximal relation to the audience and, recalling the rhetorical situation within which this mode of reasoning is expressed, the ability of the audience to act.

Rachel Carson's "A Fable for Tomorrow," of course, is not just a vision of the future. It's a *fable*, so there is a moral to her story, as there always is in this function of prolepsis. Her narrative of a civilization arrested by its own ill-conceived development and "progress," a civilization that has destroyed not only itself but also the environment within which it was situated and upon which it was so dependent, is a vision of an imminent future that will occur only if no action is taken, if the status quo of insecticidal and herbicidal saturation is allowed to proceed unchecked. Carson's fable, perhaps more than any other part of *Silent Spring*, has had a major influence on environmental rhetoric. Christine Oravec credits it as influencing the entire "genre of apocalyptic environmental writing" [41]. Here prolepsis-ampliatio manifests through a cautionary narrative as Carson anticipates environmental destruction resulting from use of chemical pesticides.

Zagacki (1999) offers another excellent example of the significance of prolepsis in environmental communication by describing disputes regarding the loss of biodiversity. To dispute the significance of loss of biodiversity we begin with the ideas that "biodiversity is good" and "biodiversity is being lost."

From there arguments about how much loss is acceptable may follow. Causes for biodiversity loss, impacts of biodiversity loss, and so on, all occur once preconceptions that allow for argument to occur or reasoning to follow. What is particularly interesting for the case of prolepsis is a subtler rhetorical act: negotiating incomplete data "as even biodiversity scientists admit, complete data is lacking" [58]. How do we know what we know about the impacts of biodiversity if we do not have all of the data, a full definition of the terms within which we must work? Prolepsis pulls a *deus ex machina* of rhetorical figuration by providing a mechanism for reason and argument. We know because we have some preconceptions about what a loss of biodiversity means because of social enculturation, both culturally and professionally.

From these examples we might structure this argument scheme, Prolepsis as Presage, to indicate that actor (*a*) tells the audience there is something at stake and if we do not act there will be (i) a loss/negative impact (A) or (ii) failure to make a gain/positive impact (A).[11]

Major Premise: *a* asserts that A is a certain outcome unless we act a particular way.

Minor Premise: *a* asserts A is

(i) undesirable or
(ii) desirable.

Conclusion: We must act to

(i) prevent A,
(ii) achieve A.

From these accounts, we see that prolepsis allows us to determine some issue is proximal, has implications to our lives, and uncertain but imaginable outcomes. Put another way, prolepsis allows our attention to be directed to particular deliberative ends. We imagine those outcomes in present terms to the extent that attention allows us to determine our current position in terms of desires, reason, and emotion for deliberation about prospective outcomes in terms of current actions or choices.

Critical questions for Prolepsis as Presage:

1. Does *a* have specific knowledge about possible outcomes?
2. Is there motivation to stop/achieve A?
3. Are the modes of changing the outcome reasonably achievable?

Although there are divisions in how these future times are realized through proleptic conceptions, the common logic of their manipulation of time with future for present locates a similar method of reasoning. Prolepsis is the structure of the reasoning or argument in response to situations wrought with uncertainty that require foretelling for the purposes of decision making. Prolepsis precedes both as it describes the imagining and articulating of potentialities. Further, prolepsis as a conceptual tool and rhetorical patterning comes to underscore the significance of the cultural experience from which one draws to further conceptualize – that is, after some initial conceptions arising from proleptic reasoning – to further articulate definitions and sustain deliberation.

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[11]Although the argument scheme's conceptual function is the same with either a positive or negative valance, it may be sensible to distinguish between prolepsis-with-negative-future and prolepsis-with-positive-future in some cases in an effort to make the argument scheme more tractable. While it does not seem the argument schemes are distinct, associated terms or phrases might be easily distinguished based on the negative/positive valance of the argument.

4. Applications for special argument schemes

4.1. Theoretical application for argument schemes

In addition to providing an extension to the range of argument schemes currently deployed, setting rhetorical figures alongside topoi refines theoretical underpinnings to argument schemes. Godden and Walton, in considering the theoretical basis for critical questions, which function as a quality assurance measure in developing, testing, and deploying argument schemes, write that "a standard theory of argument evaluation for informal logic and argumentation theory claims that an argument is cogent if and only if . . . its premises are rationally acceptable" [23].[12] Rhetorical figures generally, and prolepsis in particular, address this point in an important way. Prolepsis, if we venture from rhetoric to Stoic philosophy and back, reveals how we can determine what is a "rationally acceptable" premise. Stoic doctrine[13] offers a notion of prolepsis that can be adapted to our purposes. Stoic notions of prolepsis are particularly valuable for the way the by-pass a notion of "mere aesthetics" often associated with rhetorical figures to an understanding of them as conceptual tools for reasoning.

Reasoning about the unknown is at the heart of Meno's Paradox. In Plato's *Meno* (80d–e), Meno and Socrates attempt to uncover a definition of "virtue." Meno asks Socrates how one goes about searching for that which they do not know. How could they possibly know where to begin a line of questioning if they do not know what it is that they question? Socrates responds that a critical issue is raised in Meno's argument because one can seemingly neither search for what they know nothing about, since there is no place to begin the search, nor search for what they have already found. Socrates of course wouldn't let a false dichotomy stand, and so he proposes intermediate states of knowing as a more appropriate solution. Such intermediate states rely on Platonic recollection,[14] wherein the soul imparts knowledge that allows for knowing through these states [17]. Stoics offer a bit different answer to how intermediate states of knowledge function than did Socrates, namely, the prolepses.[15] For the Stoics, the prolepses were held to be criteria of truth. Moving insights from the Stoic framework into a rhetorical framework, we might replace "truth" with a discussion about what is suasive about particular prolepses. A prolepsis, an anticipation or preconception that allows our reasoning to be advanced by way of imagining some future time and working out the rationales to each imagined future, requires that the prolepsis is persuasive. That is to say that the audience for some reasoning must buy into the basic premises on which said reasoning operates.

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[12]Rational acceptability is one of three criteria for Godden and Walton; I have elided the other two (relevance and sufficiency) to concentrate on the one most germane to rhetorical figures and prolepsis.

[13]Two primary groups of sources for reconstructing the Stoic doctrine of prolepsis are cited by Dyson: later sources include Plutarch's *On Stoic Self-Contradictions* and *On Common Conceptions Against the Stoics*, Sextus Empiricus' Against the Professors, Alexander of Aphrodisias' On Mixture and early sources in Diogenes Laertius 7.54, Ps-Plutarch Plac. 4.11.1.4, and Glen PHP 5.3.1. [17]. Further debate occurred with Sandbach's "Εννοια and ΠΡΟΛΗΨΙΣ in the Stoic Theory of Knowledge" (1930), which advances the treatment of conception and preconception (prolepsis) in the Old Stoa (300 B.C.E.–129 B.C.E.). Citing two previous treatments of ennoia and prolepsis, Sandbach argues that the first, Stein's Erkenntnistheories der Stoa, is "most unsatisfactory" and that the second, Bonhöffer's Epiktet und die Stoa, incorrectly develops an understanding of prolepsis through Epictetus, a later Stoic philosopher who is not taken to be an authoritative source on Chrysippus [46].

[14]Platonic recollection posits that we have inborn knowledge, prior to birth, within a soul. At birth, the soul is confused or otherwise muddled such that the True Knowledge of the soul is obfuscated from the corporeal human's knowledge.

[15]Henry Dyson (private communication, 16 May 2012). Translating prolepsis as preconception or conceptions must be carefully attended to here. Stoics would hold that these preconceptions are absolute criterions of truth, not subjective moral positions.

4.2. Understanding argument motivation

Prolepsis acts cognitively by responding to a particular unknown future event and drawing upon socio-cultural knowledge and constraints of the situation to devise a response. Recall that Oakley says that prolepsis is a lot more than a "verbal trick" and rather, that "it implicates attention and memory as fundamental cognitive determinants," giving us "the dialectic interplay of the here-and-now and the there-and-then" [37]. The relevance of prolepsis, and similar rhetorical moves, is not only that argument is implicated, but also that the figure provides insight into the strategies employed across various sides of disputes and even across argument fields. For example, we might say that "*homo sapiens* have some origins" and from there reason about just what we think "origins" means. From there, structuring functions of the figure help to direct attention to particular features of some argument in particular ways. For instance, saying "*homo sapiens* have some origins" makes some assumptions about the questions we might pose (what are the origins of *homo sapiens*?) and preclude others (are *homo sapiens* are eternal?). In both cases, we are anticipating answers by the very nature, the very structure, of the prolepsis we invoke. In recounting the rhetorical role of selecting and deflecting certain aspects of some argument, we must recall Fahnestock's important insight that these strategies extend beyond mere slight of hand to shape the way we interact with, conceptualize, and understand the world. One possible trajectory for such an investigation continues to follow Fahnestock's enterprise of renovating the study of rhetorical figuration while making an effort to explicitly connect Lanham's (2006) work on attention [30]. In linking style and attention through rhetorical figures we must, as always, proceed carefully to avoid simplistic distinctions between "literal" and "non-literal."

But what kinds of conceptual strategies might motivate such a response? Writing on fear, Aristotle reveals much about the nature of rhetorical and psychological interactions that facilitate reasoning. Fear, Aristotle tells us, is "a sort of pain or agitation derived from the imagination[16] of a future destructive or painful evil" (Aristotle II.5.1) [1]. However, not all evils induce fear; only those evils that hold "the potential for great pains or destruction" induce fear and only when "they do not appear far-off but near, so that they are about to happen; for what is far off is not feared: all know that they will die; but because that is not near at hand they take no thought of it" (Aristotle II.5.1). He continues to describe the situations in which fear is evoked, which is always a matter of what is capable of evoking fear in a particular situation (Aristotle II.5.7–11). Fear is always associated with power, position, or ability to destroy. Fear, then, manifests social dynamics as much as an affective response to some stimuli. As a psychological-rhetorical interaction, fear describes more than mere pain or agitation alone. Critical to fear, as opposed to pain or agitation themselves, is the anticipatory nature of the emotion.

Aristotle's definition of fear crucially depends on a "*future* destructive or painful evil," that is "derived from the *imagination*" (Aristotle II.5.1, emphasis mine). Forward-looking and using the imagination, fear is an emotional response to some potentiality, implicating both reason and rhetoric. In order to imagine some future time and reason about its impact, people must not only imagine a change to their current circumstance, but potentialities of multiple presents at some future time. Further, fear is mitigated by confidence and people have confidence "if they think they have often come into dangers and have escaped" (Aristotle II.5.18). That is, fear is mitigated when preconceptions based in reasoning about the future on the basis of previous experience forms favourable preconceptions. We find one reason, then, why prolepsis is associated with political campaigns, like Brexit, the Trump presidential campaign, and

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[16]Kennedy includes the following qualification on what is meant by "imagination" here. He writes, "Phantasia, to be taken literally: there is an 'appearance' of something bad as going to happen, which the individual 'visualizes' " (Kennedy on II.5.1, footnote 43 [43]).

other contemporary argumentative movements in which terrorism, economic collapse, social disorder, and other sources of dread and anxiety, are so prominently featured. These campaigns project a downward slide toward chaos that can only be arrested by voting to reject the status quo.

Aristotle's discussion of the emotions underscores the complexity of rhetoric, reason, and human psychology in important ways. The emotions are able to move an audience, and the rhetor is able to evoke these emotions, but the rhetor's and audience's negotiation exists beyond mere physiology. Indeed, the Aristotelian conception of emotions is hardly constrained to a human physiological or psychological response, but describes a more nuanced negotiation. This negotiation occurs between rhetor and audience, and among audiences, as a rhetorically constructed prompt that is answered by socially constructed and culturally constrained emotions. The interplay between the physical, or natural, and social is well characterized in Aristotle's definition of fear, and this reminds us of the complexities inherent in the meta-contextual dimensions we chart in argument studies.

5. Final remarks

I have argued that rhetorical figures are valuable for developing argument schemes, featuring the complex, if not chaotic, history of prolepsis. If the chiastic suite is an easy case, because of its clear lexio-syntactic signatures, cognitive affinities, and constrained set of rhetorical functions, prolepsis is the hard case. By searching for rhetorical figures in particular kinds (genres) of text, argument schemes specific to certain meta-contexts can be identified, formalized, and extracted. Such efforts align with a recovery of "special topics," a kind of topics treated by Aristotle. Prolepsis – or, as we can now say, the proleptic suite – provides an example of such work and illustrates some of the complexities and benefits in this approach. Not all rhetorical figures are well defined by morpholexical-syntatic features or by semantic properties. Prolepsis lacks such characteristics.

My overall argument is isomorphic with the argument of this special issue: that rhetorical figures are a rich resource for creating computationally tractable, and also rhetorically sophisticated, approaches to argument identification and extraction. But I have used a particularly tough case to prosecute that argument – prolepsis to show how that is useful. Prolepsis is one of the most difficult figures to work with in these efforts, and if work with this figure is possible, highly formalized figures, such as the schemes and the more clearly indexed tropes (like antithesis, oxymoron, and litotes, indexed by antonyms and forms of negation) are likely to offer a high return on our efforts.

In this essay, specifically, I have argued that prolepsis is concerned with anticipation of one or many possible futures considered as though they have unfolded, in concert with a small set of rhetorical functions. That which is uncertain, necessarily constituent of future time, is made certain in imagining for the purposes of deliberation. Though there are divisions in how these future times are realized through proleptic conceptions – *prolepsis-occupatio*, *prolepsis-ampliatio*, and *prolepsis-praemonitio* – the common logic of their manipulation of time with future for present locates a similar method of reasoning. Further, a critical component of the rhetorical suasiveness of prolepsis, the effective manifestation of this conception, is accomplished through proximal relation to the audience and, recalling the rhetorical situation within which this mode of reasoning is expressed, the ability of the audience to act.

If we are uncertain about some issue or its outcomes there may be little rhetorical interest. Why care about the distant (future) or unknown (uncertain)? The rhetorical effect of prolepsis comes by way of reasoning that allows us to determine some issue is proximal, has implications to our lives, and uncertain but imaginable outcomes. We imagine those outcomes in present terms to the extent that fear allows us to

determine our current position in terms of desires and reason or deliberation about prospective outcomes in terms of current actions or choices.

The three proleptic figures I have proposed, disarticulating the confusion of traditional prolepsis treatments, however, are only a few among hundreds of figures. Rhetorical figures are rich with the kinds of insights that can helpfully advance argumentation studies to address the kinds of special topics that Aristotle might have envisioned across disciplines, and deployment of figural studies across specific genres can certainly help specify the kinds of meta-contextual dimensions that are crucial to understanding arguments for the purposes of detection and extraction. While important computational considerations for this approach will ultimately be required, the cross-disciplinary approach outlined in this essay, that rhetoric offers to creating computationally tractable argument schemes, has impressive potential and merits the increasing attention it is attracting in computational argument studies.

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