



Stock issues and the structure of argumentative discussions: An integrative analysis

Eugen Octav Popa^{a, *}, Jean Wagemans^b

^a Department of Communication, Philosophy and Technology (CPT), Wageningen University and Research, the Netherlands

^b Speech Communication, Argumentation Theory, and Rhetoric, University of Amsterdam, the Netherlands



ARTICLE INFO

Article history:

Keywords:

Argumentative discussions
Structure of interaction
Stock issues
Standpoints
Arguments

ABSTRACT

We develop a method for analyzing argumentative discussions centered around the notion of ‘stock issues’, i.e., the field-dependent standard issues addressed by the participants in such discussions. The method yields an overview of the structure and content of complex argumentative discussions with multiple participants, including the activated stock issues and the ‘depth’ of the argumentation advanced per each stock issue. We start from the assumption that any given discussion context requires a set of stock issues to be addressed by the participants through their argumentation, tied together by a decision rule regulating the weight of each stock issue on the matter at hand. The building blocks of our method and the results of its application are illustrated through an example. We discuss several extensions and problems, concluding with directions for further research.

© 2021 The Author(s). Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

1. Introduction

When two or more parties are engaged in an argumentative discussion, the continuous advancement of standpoints and arguments can make the discussion increasingly complex. Some arguments are intended to support a party’s standpoint directly, other arguments are intended to support arguments (which in turn support the standpoint), and again others to refute objections raised by one or more opponents. As the parties delve deeper into the matter, the structure of their communicative interaction can quickly develop into a complex web of interrelated discourse elements. To deal with this complexity and disentangle the resulting interaction may not only become a challenge for those involved in the discussion but also for outsiders (including scholars or other analysts).

This ‘challenge of disentanglement’ has been addressed in a variety of fields such as pragmatics, discourse analysis, argumentation theory and conflict studies, resulting in a great many tools designed to aid the analysis of complex argumentative discussions (e.g., [Aakhus and Lewiński, 2017](#); [van Eemeren and Snoeck Henkemans, 2016](#); [van Rees, 2007](#); [Walton et al., 2019](#)). Such analytical tools have been applied for understanding and visualizing the complex *relationships* that arise between the multiple standpoints and arguments advanced ([Greco et al., 2016](#); [Green, 2010](#); [Mochales and Moens, 2011](#); [Snoeck Henkemans, 2000](#)). Since they are based on different theoretical starting points and different analytical building blocks, each of them generates its own pedigree of analytical focus and visual representations (see overviews in, e.g., [Katzav and Reed, 2008](#); [van Eemeren et al., 2014](#)). But what unites the existing approaches to the representation of the structure of argumentative discussions is their almost complete side-lining of the analytical potential of the concept of ‘stock issues’.

* Corresponding author.

E-mail addresses: eugen.popa@wur.nl (E.O. Popa), J.H.M.Wagemans@uva.nl (J. Wagemans).

Stock issues are standard issues (or ‘points’) conventionally addressed in argumentative discussions that occur in specific contexts (Freeley and Steinberg, 2009; Ihnen Jory, 2012; McCeoskey and Camp, 1964; Schut and Author, 2014). The concept originated in the classical rhetorical tradition in the form of a list of *staseis* (singular: “stasis”) or fixed discussion points addressed in judicial speeches (Carter, 1988; Hoppmann, 2014) and underwent further extensions and refinements in the 20th-century American debate tradition (Braet, 1984, 1999).¹ The many existing definitions of stock issue share a Wittgensteinian family resemblance that cannot be discussed here in detail (Harpine, 1977). In the following, we single out some often-recurring points.

- (i) Stock issues are *general* in the sense that they apply to more than one interaction and often, by definition, to all discussions of a certain type. For example, in a legal discussion about guilt, arguers usually draw upon the deeds of the ones involved, their knowledge of the risks, aggravating and attenuating circumstances, alibis, and the like. While the habit of addressing such topics might have emerged from conducting a large number of individual discussions, once they are acknowledged as stock issues, they are deemed applicable to any discussion of guilt.
- (ii) Stock issues have *normative* force in the sense that the speakers are expected to address them in their argumentative discussions – choosing and ordering them relative to the institutional setting in which the discussion takes place (Ihnen Jory, 2012, p. 41). Notice that this normativity applies to *all* parties involved in the discussion. If discussants leave aside important stock issues that they were expected to tackle, so much the worse for their joint performance. In this way, the normativity of the stock issues is inclusive and differs from the individual way in which rules of reasonableness are normative, i.e., speakers commit fallacies individually (Hansen and Pinto, 1995; Walton, 2011).
- (iii) Depending on the context, stock issues are accompanied by a *decision rule* which stipulates the weight of each issue in the ultimate decision and thus directs the parties from exchanging arguments pro and con to taking a decision based on the exchange. In the legal context, such decision rules are stipulated by law but they offer significant freedom of interpretation and application for judges and juries (Giltrow and Stein, 2017; MacCormick, 2005; Stelmach and Brozek, 2006). In less formalized contexts, more often than not they remain implicit and thus need to be reconstructed in order to fully understand the motivation for the decision.

Although stock issues thus regulate argumentative practices within a great many different domains and are considered an important theoretical notion within the rhetorical tradition since Aristotle (Braet, 1984, 1999), tools for representing the structure of argumentative discussions do not usually take them into account. In this paper, we redeem this omission by developing a method for analyzing argumentative discussions in which stock issues are included. The analysis reveals not only the relationship between the discussants’ different contributions to the discussion (standpoints and arguments), but also pictures the relationship between these contributions and stock issues together with the associated decision rule(s). It can be used in fields where the central aim of an analysis is to evaluate the strength of the arguments involved (argumentation theory, informal logic) but also in fields where the central aim is to obtain a theoretically driven reconstruction of interactions of increasing degree of complexity (pragmatics, discourse analysis). Specifically for the readers of the Journal of Pragmatics, the paper contributes to an ongoing discussion on tools for the function, placement and relationship of speech acts within argumentative discussion (Greco and De Cock, 2021; Katzav and Reed, 2008; Kerbrat-Orecchioni, 2004).

Our paper is organized as follows. In Section 2, we introduce and illustrate the primary components of our method, explaining how discussions can grow in complexity by the accumulation of moves pertaining to one stock issue and by the introduction of new stock issues. In Section 3, we highlight a series of points illuminating the relationship between the current method and several kindred ones. In Section 4, we draw a conclusion about the utility of this method and propose several paths for further research.

2. Primary forms of argumentative behavior

2.1. Basic disagreement

The notion of ‘standpoint’ refers to any statement that is the subject of disagreement in a discussion between two or more speakers (van Eemeren et al., 2014, pp. 13–16). In order to illustrate how such a disagreement can come about and lead to complex discussions, we introduce two imaginary speakers, John and Mary. We assume that the disagreement starts with the following statement uttered by John “Let’s go to restaurant A” (1). We also assume Mary is not fully on board with this, meaning that upon hearing (1), she is either not immediately pleasantly surprised by John’s proposal or expresses some degree of doubt. Although distinctions can perhaps be made between a ‘lighter’ expression of doubt and the full-fledged rejection of a standpoint, we are here only concerned with making the distinction between acceptance and non-

¹ The Aristotelian notion of ‘topic’ (*topos/topoi*), developed in his *Topics* and *Rhetoric*, is also related to the concept of stock issues and *stasis* (only the latter two being synonymous). Topics in this sense generally pertain to recurring or expected argument types or schemes and thus stand in a many-to-one relationship to stock issues: there can be more than one topic addressed within one stock issue.

acceptance of the standpoint. Any minimal non-acceptance will do, whether expressed as doubt or as rejection. Let us then assume that Mary responds by saying something like: “I don't know about going to Restaurant A”. At this point, we can say that John and Mary are in a state of disagreement about going to Restaurant A.

In our representation method, standpoints are marked by circles and numbers. The status of the disagreement between John and Mary is illustrated by the black/white contrast as in Fig. 1.

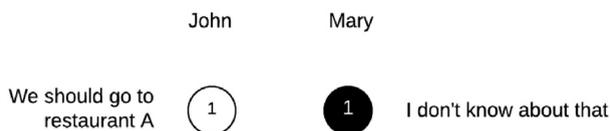


Fig. 1. Basic disagreement when standpoint meets non-acceptance.

We should note here that since no defenses are advanced, no stock issues are activated either. This does not mean that stock issues cannot already be illuminated should we have sufficient knowledge of the context. In real-life argumentative discussions, a standpoint as simple as “Let's go to Restaurant A” comes with a certain ‘social ontology’ (Searle, 1995) in which conventional stock issues such as, e.g., quality of the food and price of the food, are expected. The decision rule might also precede the actual conversation in this sense. John and Maria might be following an implicit rule, e.g., “We go to that restaurant which satisfies three of the four criteria that we are checking: quality of food, distance, price and fond memories” or “We go to that restaurant that is preferred by the person who is most prone to complain about it afterwards”. Such decision rules are nothing but field-, context- and, in case of highly unusual circumstances, situation-dependent criteria that need to be addressed in order to decide the matter. The mere advancement of a standpoint can therefore bring about quite a rich social ontology the revealing of which will force us to conclude that there is more to choosing a restaurant than one might suppose at first glance.

We thus distinguish between stock issues that are *present* given of the content of a standpoint and stock issues that are *activated* when someone actually employs an argument that addresses that issue. In what follows, John and Maria will activate a stock issue.

2.2. Basic support

In response to Mary's non-acceptance, John can of course decide to leave it at that, although it would not be particularly natural or polite to do so. He can also decide to ask Mary to motivate her non-acceptance of the standpoint, e.g., “Why shouldn't we go to restaurant A?”, although in this case it must be clear that Mary has a burden of proof regarding her refusal. In our illustration, John decides to support his standpoint through argumentation.

A minimal support will consist of two elements: an *argument* and a *criterion* (van Eemeren and Snoeck Henkemans, 2016). We can imagine in our case the argument being the statement that “Restaurant A has the best food in town” and the criterion being the statement that “We should go to the restaurant that has the best food in town”. In order to focus on how the discussion is structured, we want to leave aside for now the various complications that can arise from implicitness in advancing the argument and the criterion. It will suffice to mention that if the criterion is left implicit, then without any further contextual information, the force of John's criterion will be impossible to reconstruct with precision: Will it be the lighter “We should go to the restaurant that has the best food in town *today*” or the stronger “We should *always* go to the restaurant that has the best food in town”? For the present purposes we assume that John and Mary make all their moves explicitly and that the analyst's reconstruction of the criterion poses no particular pragmatic problems.

In order to visually represent John's defense, we have to add the two statements expressing the argument and the criterion respectively. We will represent the argument visually as a circle similar to the standpoint but with a larger (consecutive) number – in this case, ‘2’ – and we will represent the criterion as a visually distinct quadrangle that contains the numbers of the two statements it connects, starting with the number of the argument – in this case, ‘21’. To make good use of space, we will not write down the entire compound sentence of the criterion but simply the noun phrase that captures the essence of the criterion (e.g., ‘quality of food’). With John's first argument, our first stock issue is activated. We notate stock issues as follows: i_1, i_2, i_3, i_4 (with ‘i’ standing for ‘issue’). An issue is represented visually as a colored or gray rectangular space that is placed *between* the two discussants. We say that every element that is at the same level as this space but outside of it *pertains* to the issue and that every element that is inside the space is *shared*. We can refer to the totality of shared statements in all the activated stock issues as the *common ground* between the two discussants. Fig. 2 pictures the situation thus far: John advances a standpoint and, in reaction to Mary's explicit non-acceptance, he puts forward an argument that activates the first stock issue.

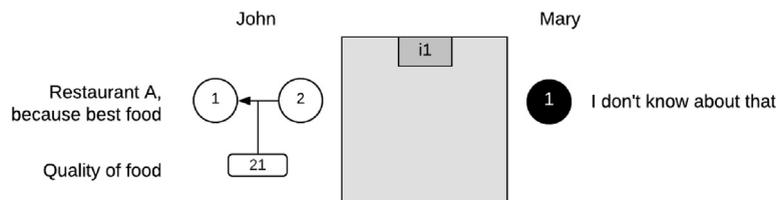


Fig. 2. John advances a defense of standpoint 1. 1 white = standpoint; 1 black = counter-standpoint; 2 white = argument for 1 white; 21 = criterion.

Notice that at this point in the discussion, the common ground (gray square) between John and Mary is empty. This does not mean they do not agree on anything. At this point they might in fact agree on many things: that going to the restaurant is worth discussing, that they communicate about this in English, and that a restaurant is a place where one can buy and eat food. However, for reconstructive purposes, we only represent here as elements of the common ground those statements that are advanced as discussion moves and agreed-upon in response. The grey space thus functions as a log of the common ground in as far as it results from that transaction, not as a representation of the more general common ground the parties share regardless of whether they decide to engage in this discussion or not.

2.3. Defense is refused

We assume that the first reaction on Mary's part is her refusal of John's defense. This means that Mary either rejects the argument or the criterion. These two rejections are pragmatically very different: it is one thing to reject that Restaurant A serves the best food in town, but quite another to reject the criterion of 'quality of food' itself. We will discuss below the situation in which Mary seems to reject both components at the same time. For now, we discuss the distinctions between these two individual rejections.

If Mary rejects the argument, then we first have to add a new element of non-acceptance to her side (a new black circle). Additionally, we need to bring the criterion into the common ground created by the activated issue. But now, with the criterion as a shared common ground, Mary's rejection is pragmatically equivalent to her defense of '1 black', her refusal of the standpoint. Thus, if Mary agrees that they should go to the restaurant that serves the best food (criterion) and disagrees with the argument that Restaurant A serves the best food (argument), then her acts can be reconstructed as a defense of the refusal (standpoint). In short, Mary is thus arguing that they should not go to Restaurant A because it does not have the best food in town. Of course, if Mary's initial standpoint (1 black) was a milder refusal of John's standpoint (1 white) then this milder variant would be now defended. Once more, we have to leave aside matters of nuance in order to explore how the basic building blocks create complex discussions (see Fig. 3).

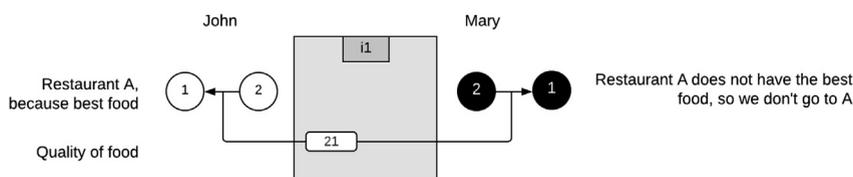


Fig. 3. Mary refuses John's defense by rejecting the argument. 1 white = standpoint; 1 black = counter-standpoint; 2 white = argument for 1 white; 2 black = argument for 1 black; 21 = shared criterion.

Notice that the criterion '21' remains on John's side, even though it is in the common ground since both John and Mary make use of that criterion. We do this to account for the cases where it is relevant where the criterion 'comes from'. But if this is not relevant for a particular analysis, the criterion can be placed in the center of the space created by the issue.

We now turn to the second type of refusal, the one where Mary accepts John's argument that Restaurant A has the best food, but rejects the criterion that such an argument would lead to the acceptance of the standpoint. Everything that was said about the visual representation of the previous situation applies, *mutatis mutandis*, to this situation. The argument, now being accepted, is placed inside the common ground, while the criterion, now rejected, is placed outside this common ground. As above, let us ask for this new situation what the relationship is between the accepted parts and the rejected ones. What Mary is saying is that despite the food at Restaurant A being good, she still does not want to go to Restaurant A. In such a case, we conclude that Mary is in fact introducing a new criterion into the discussion that, in the decision rule, has more weight ('is more important') than the quality of the food. As regards the content of this implicit criterion, the rejection alone will not help: maybe Mary is discarding Restaurant A because of cost matters, or distance, or having been at the same restaurant for the past several nights out. The point is that when she accepts the

argument but not the standpoint, she becomes committed to *there being such an alternative criterion*. Based on this alternative criterion, she rejects the standpoint even though she accepts John's argument. The situation is thus represented as in Fig. 4.

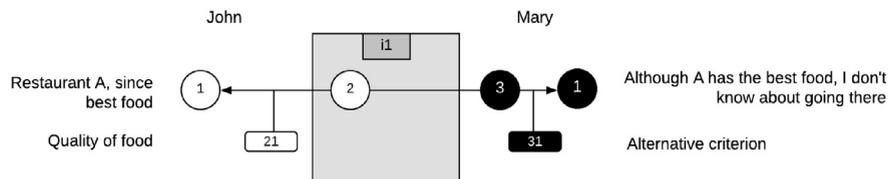


Fig. 4. Mary rejects the criterion. 1 white = standpoint; 1 black = counter-standpoint; 2 white = conceded argument for 1 white; 3 black = argument for 1 black; 21 = criterion used by John; 31 = criterion used by Mary.

We notice that the rejection of an argument is much more straightforward than the rejection of a criterion. If John says that the food is great and Mary rejects this argument, then standpoint (1) was not successfully defended and there isn't much else happening in their interaction. But if John advances the same argument and Mary rejects the criterion, then she becomes committed to there being some other criterion that John has left out of the discussion so far. If the two agree that the food *is* good, then Mary's refusal to go to the restaurant despite the good food must be based on something else being unsatisfactory. Mary's silence regarding this second criterion explains the naturalness of John's reaction highlighted (*) below:

John: Let's go to A
 Mary: I don't know...
 John: The food is great there!
 Mary: I agree with that!
 John: So why don't you want to go to A?

Note finally that Mary's unmentioned criterion can in fact be the negation of the criterion John is using. If John's criterion is that good food leads to a positive decision for A, thus $(p \rightarrow q)$, Mary's criterion might very well be that good food leads in fact to a negative decision for A $(p \rightarrow \neg q)$. Good food is an argument for John and a counterargument for Mary:

John: Let's go to A
 Mary: I don't know...
 John: The food is great there!
 Mary: I agree with that!
 John: So why don't you want to go to A?
 Mary: I don't want great food!

Refusing a restaurant for its 'great food' might be unusual, but it's not unconceivable – perhaps Mary's criterion is that Restaurant A is expensive. It seems therefore that while arguments can be straightforwardly rejected as 'unacceptable', the rejection of criteria seems to always imply a problem of a more complex sort such as sufficiency or relevance (see also [Johnson and Blair, 2006](#)).

2.4. Reactions to the refusal

We are now at a point where we assume that it is John's turn to react to Mary's refusal of his support. Surely, Mary can take the initiative and make new moves, but it seems simpler to assume a neat turn-taking between the two. In any case, everything that is said now of John's reaction to Mary's refusal applies *mutatis mutandis* to Mary should she be the one continuing to make new moves.

We distinguish between four possible reactions to Mary's refusal of John's defense. Each of these leads to a specific development of the discussion:

- a) John replaces his standpoint
- b) John maintains the standpoint; replaces the defense.
- c) John maintains the standpoint; maintains the defense; replaces the element Mary rejected
- d) John rejects Mary's rejection

For the first two reactions, John's behavior can be seen as an attempt to move past his failed first defense: in case (a) by trying again with a new standpoint, in case (b) by trying again with a new defense. The first reaction, i.e., the replacement of the standpoint (1) with a new standpoint (3), say "Let's go to Restaurant B", is given in Fig. 5.

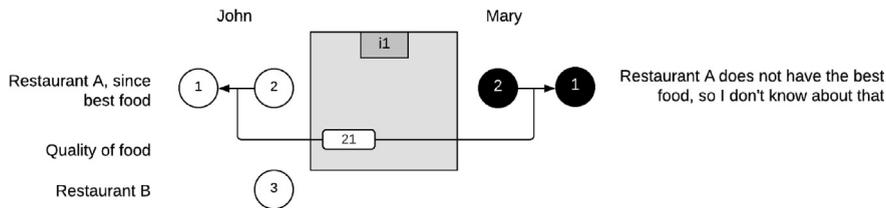


Fig. 5. John replaces the standpoint. 1 white = standpoint; 1 black = counter-standpoint; 2 white = argument for 1 white; 2 black = argument for 1 black; 21 = shared criterion (quality of food); 3 = new standpoint.

Fig. 5 shows that the discussion pertaining to 1 is not decided one way or the other and that the new standpoint has the possibility of opening up a new issue. We will get back to these matters later. For now, it suffices to note that whatever was allowed in the common ground (in the gray area) will remain on the common ground and whatever was disallowed will remain outside that same common ground.

In case (b), John maintains the standpoint but replaces the original support, the one that Mary rejected. Thus, upon hearing that Mary does not agree that restaurant A has the best food, John retracts this argument and tries a more modest version of the same argument, say, “Restaurant A has the best pizza.” The resulting situation is represented in Fig. 6 as a reaction to Mary’s rejection of the argument. The same would apply *mutatis mutandis* if Mary’s refusal was based on the rejection of the criterion.

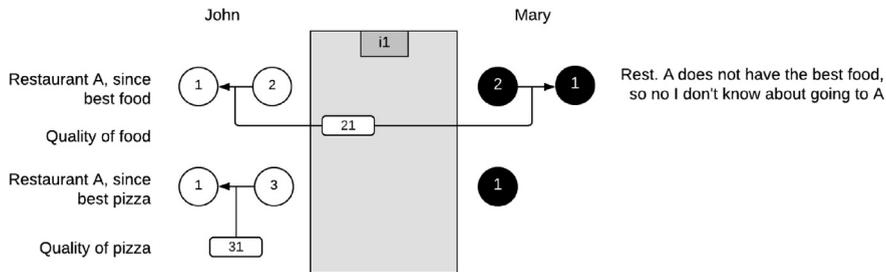


Fig. 6. John replaces the argument by an argument belonging to the same issue. 1 white = standpoint; 1 black = counter-standpoint; 2 white = argument for 1 white; 2 black = argument for 1 black; 3 = new argument; 31 = new criterion.

It is important to note that John’s new argument (3) can also activate a new *stock issue*. For illustrative purposes, let us assume John comes back with a completely different argument in favor of restaurant A and that this argument opens up issue i2. The situation would then be represented as in Fig. 7.

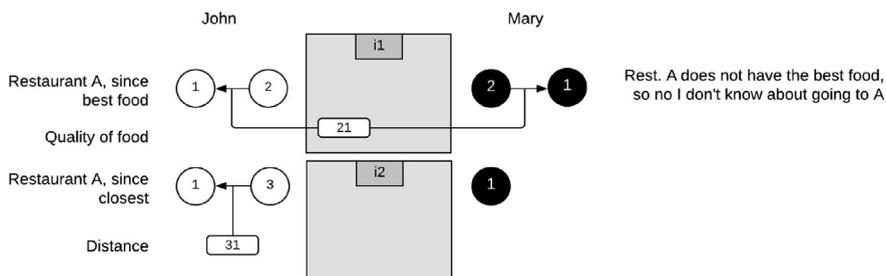


Fig. 7. John replaces the argument by an argument belonging to a new issue. 1 white = standpoint; 1 black = counter-standpoint; 2 white = argument for 1 white; 2 black = argument for 1 black; 3 = new argument; 31 = new criterion.

Because a new issue has been opened up, the parties are now facing the obligation to decide based on a decision rule that specifies the status and the *weight* of each issue on the matter. Are both criteria (food and distance) necessary for choosing restaurant A? If one party ‘wins’ on one issue and the other party ‘wins’ on the other issue, is it a stalemate, or does one criterion have more weight? And even assuming that one criterion has more weight, do parties grade their wins cumulatively

so that a third issue won by the side with the weaker argument would tip the scales? Opening up a new issue increases the complexity of the discussion and the decision issues that the two parties involved have to handle.

Let us now look at the last two of John's reactions, cases (c) and (d). Unlike the first two of John's reactions to Mary's refusal, these last two build upon Mary's refusal rather than sidelining it. In other words, John 'stands his ground' by seeking to maintain his previous argumentation.

If Mary rejected the argument, then John's reaction can be to advance further argumentation in favor of that argument. That argument then becomes a standpoint itself (which will influence its visual positioning relative to other elements) and will be supported by a new argument and a new criterion. John can cite, for example, the restaurant's high placement on a recent competition of restaurants judged based on the quality of food: "A has best food because A won the competition". The result is represented as in Fig. 8.

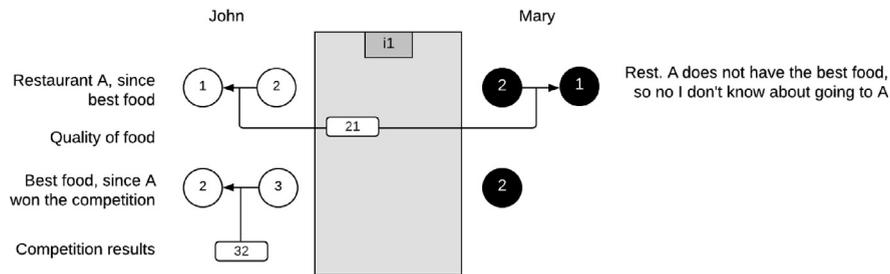


Fig. 8. John provides an argument (3) in support of his earlier argument (2). 1 white = standpoint; 1 black = counter-standpoint; 2 white = argument for 1 white; 2 black = argument for 1 black; 3 = argument for 2 white; 32 = criterion.

If Mary rejected the criterion, then John could further defend this rejected criterion with argumentation. For example, John might argue that they should choose based on the criterion because they agreed that they should *always* decide restaurants based exclusively on the quality of food, or because they agreed that they would *today* decide restaurants based exclusively on the quality of food, or perhaps because someone else argued on television that relationships last longer whenever the decision is based exclusively on the quality of food. Such a situation would be represented as in Fig. 9.

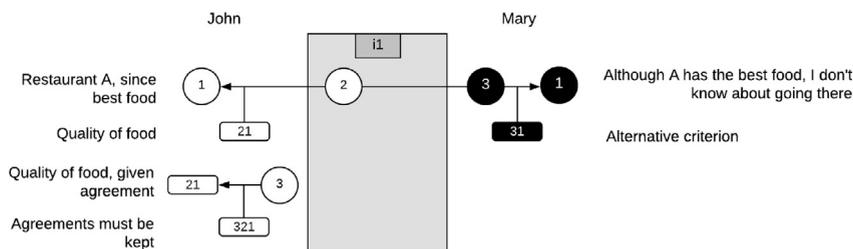


Fig. 9. John further defends the criterion that Mary rejected. 1 white = standpoint; 1 black = counter-standpoint; 2 white = argument for 1 white (Mary concedes); 3 black = argument for 1 black; 31 = criterion for 1 black; 321 = criterion for the criterion 21.

We note one important feature of stock issues at this point. First, whether a part of a discussion pertains to a particular stock issue or to another one, is determined by the upper-most level of argumentation. When John and Mary are discussing quality of food at the upper-most level of argumentation, their discussion of competition results (Fig. 9) falls under that issue even though the subject of competitions is about that issue only in an indirect sense. If the discussion would move further, as it could, with the parties 'digging deeper' into the matter, the entire structure would still fall under the issue of food quality even though the two can deviate quite significantly from that issue.

Finally, John's rejection of the rejection, case (d), amounts to a repetition of the element that is being rejected because asking Mary to defend her rejection is pragmatically equivalent to the reaction of non-acceptance we have discussed in Section 2.1. If someone calls a component of your argumentation into question and you call into question their calling into question, you are essentially repeating your commitment for that component despite their negative reaction. The situation is illustrated in Fig. 10, taking the rejection of the argument as a case in point. The same applies *mutatis mutandis* when the criterion is rejected and John refuses that rejection.

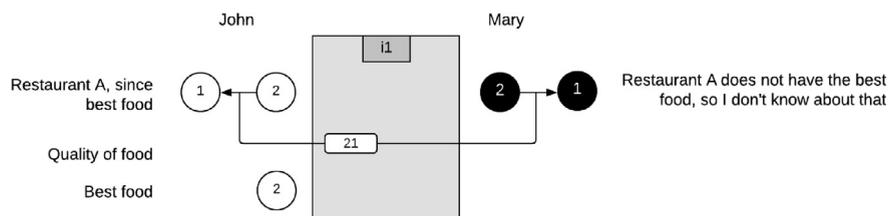


Fig. 10. John rejects the rejection by reasserting argument 2. 1 white = standpoint; 1 black = counter-standpoint; 2 white = argument for 1 white; 21 = shared criterion.

It is crucial not to ignore such unusual developments of a discussion because they lead to a better understanding of the interplay between dialectical and pragmatic aspects of the interaction. From a pragmatic point of view, the situation in Fig. 10 might be described as a mere repetition. But dialectically we would need to notice that the burden of proof has been changed (by John). In a same dialectical analysis we might also remark that, through John's repetition, the participants to the discussion are dangerously close to a stalemate – Mary rejects 'good food' and asks John for further moves while John, in turn, asks Mary for further moves regarding her rejection of 'good food'. Perhaps a 3-move rule could apply as in chess: a draw is arrived at automatically if the same position is reached three times. In any case, these pragmatically unexceptional developments must be taken into consideration as essential parts of a system of analysis.

2.5. Taking stock

From this point onwards, all developments are repetitions of the identified building blocks. We can at this point explain how the analyst concludes the analysis by taking stock. To take stock means to examine the stock issues that have been activated and compare these with the stock issues present in the context. In doing so, the analyst is not evaluating the argumentative discourse of any of the participants in the traditional sense (van Eemeren, 2015), nor is she investigating any possible 'misalignments' between the parties involved (Greco and De Cock, 2021). Rather, in taking stock, the analyst is evaluating the participants' discussion as a whole and does so relative to the stock issues that are specific of the context at hand. Notice that the analyst will not ask whether each issue is dealt with *satisfactorily* by the parties involved – this would mean focusing on individual defenses and evaluating them according to some rationalist or relativist standard of reasoning. Although fallacy detection and other types of fault-finding are still possible, the case has been made that these approaches ultimately fail to ground their own evaluative standards (Bearn, 1986; Feyerabend, 1961). In our method, the normative dimension pertains to the parties' joint activation of stock issues and their reaching a decision based on a decision rule.

How would the analyst proceed in the context at hand? The analyst would begin by reviewing the stock issues present in the context under evaluation. Some contexts will probably be more charitable than others. A discussion of, e.g., whether a new type of vehicle is safe to be driven on public roads will usually take place in the presence of clearly identified stock issues – codified as they might be in legal provisions. By contrast, a discussion on the best texture of a pizza crust will usually take place in a more informal context, meaning that it is very difficult to pinpoint – as an analyst or a participant – the set of stock issues that have normative weight. The identification of stock issues in these informal contexts is a complex theme that cannot be fully covered here but several methodological points are worth highlighting.

First, the authority of the speakers in activating particular stock issues need not prevail over other sources of normativity. Even though these stock issues will be taken into consideration, they need not have priority or constitute the standard against which all other empirically discovered stock issues will be evaluated. John and Mary can of course decide to evaluate restaurants based on, say, the number of letters in the restaurant's name and we must not discard that altogether, but they will not thereby have made a normative claim superior to that of the analyst or other participants with a certain knowledge of the context. John and Mary are of course free to decide the matter however they want and there is nothing inherently wrong or unreasonable about choosing number of letters as a criterion. But in her evaluation the analyst can conclude that the discussion has strayed from the typical path delineated by standard stock issues such as quality of the food, quality of the atmosphere and setting, price, availability, distance, etc.

Second, the empirical status of the stock issues in informal contexts poses some methodological problems. In a highly regulated context such as legal trial, finding the relevant stock issues does not pose any issues because they are already made explicit in regulatory acts and various forms of legislation. The analyst might still encounter difficulties placing specific contributions within a particular stock issue (especially when the speakers do not explicate the argument-issue relationship involved) but the stock issues themselves will be clear and easy to find. At the other extreme, the highly informal talk about, say, pizza texture, restaurants, paint colors, and baby names will to some extent remain beyond the normative reach of the analyst. Yet these are extreme cases. In most contexts, stock issues can be identified empirically through qualitative research (e.g., content analysis, ethnographic methods applied through field research) and quantitative research (e.g., frequency distribution) on past discussions within that context. An example of such qualitative research is the work of Swierstra and Rip on the ethical debates surrounding new and emerging science and technology (Swierstra and Rip, 2007). The field of controversy analysis is also known for 'mapping' issues that are brought up frequently and need to be addressed within a certain

controversy (e.g., [Bartley, 2015](#)) or more generally around a certain public policy issue ([Marres, 2015](#)). On the quantitative side, bibliometric analyses can be used to distil the issues that are brought up most around a certain concept ([Muhuri et al., 2019](#)). Although these fields provide instructive examples of how stock issues can be grounded in empirical research, we should not refrain from acknowledging that at times healthy introspection on our own intuition can be a fruitful starting point. Asked what ‘stock issues’ pertain to choosing a restaurant, one could do worse than start with one’s own intuition developed from the many experiences of going through that decision-making process. This intuition can then be chiseled through qualitative and quantitative research.

A third and final point will bring an extra layer of complexity to the problem: What might appear as negligence on the discussants’ part – for disregarding the stock issues pertaining to a certain subject or in a certain context - might in fact be a sign of *mutual agreement that absent issues are in fact already dealt with*. If we think of a discussion as being subjected to Austinian forms of infelicity, where the persons choosing restaurants over numbers of letters in the name are somehow ‘misexecuting’ the joint activity of choosing a restaurant ([Austin, 1962](#)), then we need to stress that *implicitness* does not always amount to *infelicity*. Arguments can be indexical in this way meaning that the interpretation is dependent on the context in the same way indexical sentences are ([Cornish, 2008](#); [Schulz, 2010](#)). For example, when John is saying “Restaurant A has the best food”, what he might mean is not:

“Restaurant A has the best food *and this is a sufficient criterion for choosing A*”,

which we would normally take him to mean, but rather,

“Restaurant A has the best food *and the other criteria are such that ‘distance’ or ‘price’ are dealt with in an obvious way that you and I agree upon*”

The other stock issues are thus activated but dealt with implicitly since John and Mary might know that when it comes to distance and price, Restaurant A fits their criteria. But if John and Mary did *not* have any implicit agreement regarding these other stock issues, i.e., if Restaurant A happens to be extremely expensive and extremely far, then we could speak of their discussion being misexecuted. The more general point can thus be summarized by saying that not every unactivated stock issue is automatically an unaddressed one. The concept of ‘stock issues’ can be applied generally whenever argumentation is brought forward, even when it is difficult to achieve a broad consensus among observers regarding the relationship between stock issues and criteria.²

These methodological points suggest a theoretical proximity between the concept of ‘stock issue’ as employed in this paper (and more generally within the rhetorical tradition) and the concept of ‘burden of proof’ as employed in the field of argumentation theory ([Walton, 1988, 2014](#)). There is, however, an important difference between the way in which the two concepts are used in analyzing argumentative discourse. The notion of burden of proof is primarily used to evaluate the degree to which a speaker’s behavior is in line with the standards of rational/reasonable argumentation present in a certain context ([Walton, 2014](#)). Such usage is in line with the rationalist and dialectical disciplines that are interested in assessing the value of specific contributions to a discussion (whether they are rational, or reasonable, or whether they manage to discharge the burden of proof). Our approach to stock issues, by contrast, seeks to remain as neutral as possible about the many conceptions of ‘good argumentation’ articulated within the field of argumentation theory. It can only be called ‘normative’ in the sense that speakers are expected to address the relevant stock issues in a particular context and that not addressing them amounts to some form of pragmatic glitch we called ‘misexecution’ above.

3. Discussion

In the previous section, we have introduced our tool for the combined representation of the structure, content and stock issues of an argumentative discussion. We now want to highlight several developments and extensions of this tool. In this way we explicate the tool further and illuminate its relationship with standing theories in the pragmatic and argumentative analysis of interaction in context.

3.1. Simultaneous moves

In our system, John and Mary are unnaturally tidy. Not only do they take turns in performing their moves, they also perform only one move per turn. Yet we know that argumentative reality is far from this ideal picture. We therefore need to show how the system deals with some such phenomena that are very natural yet appear as ‘glitches’ from the perspective developed here.

A first phenomenon has already been alluded to in Section 2.2 and can be labeled as *simultaneous rejections*. It is quite natural for a speaker to disagree in one breath with both the advanced argument and the advanced criterion. Mary could thus say: “I don’t agree that Restaurant A has the best food and we wouldn’t go to A even if it had the best food”. Some textual

² When complications do arise, they typically cover both the propositional content of a speech act and the categorization in stock issues (so the ‘trouble’ refers to the reconstruction of the dialogue more generally, not necessarily to the application of the concept of ‘stock issue’). For example, an argument such as “That restaurant is great” is ambiguous between several readings (What greatness is the speaker referring to?) and this will cause difficulty in assigning this argument to a specific stock issue. But the methodological idea remains that once these semantic/pragmatic matters of interpretation are dealt with, the concept of stock issue can be employed as above.

indicators commonly used for these reactions mark this as a simultaneous performance of two moves, i.e., “I don't agree with ..., and *besides/in fact* ...”. The problem seems to be that, in our system, whenever a component is rejected, the other component is accepted so we cannot reconstruct Mary's double rejection as such. But this does not seem to be a problem because Mary can be interpreted as speaking hypothetically for the second rejection, an interpretation that is supported by the use of the conditional. Hence Mary seems to be saying something along the lines of “I don't agree that Restaurant A has the best food and *even if I did agree*, I also disagree with the (sufficiency/relevance of the) criterion that we should go to the restaurant that has good food”. Mary is thus skipping turns in such a case.

A second phenomenon is that of *simultaneous defenses*. It is of course well known and quite natural for someone to defend the standpoint in one turn with more than one argument (van Eemeren and Snoeck Henkemans, 2016). Traditionally, scholars have placed these many arguments on the same level and have postulated that there are various relationships that can hold between them (see, e.g., van Eemeren and Grootendorst, 1992; van Eemeren et al., 2007, p. 200). For example, in this traditional account, the arguments (2) and (3) below would be treated as appearing on the same level, connected by one of the postulated relationships that arguments can exhibit when on the same level. The resulting argument is then said to be b.

John: We should (1) go to Restaurant A because (2) it has awesome food and (3) awesome food will make us both happy.

The resulting argument is then said to be ‘complex’ (as opposed to ‘simple’, when there's just one argument). Thus, in Snoeck Henkemans' account, arguments (2) and (3) would appear on the same level, connected by a certain posited relationship, perhaps that of co-ordination in the case of John's (2) and (3). While this is sometimes an elegant solution, we can show on the basis of our model that this situation can be modelled without positing new entities and distinctions. In our model (3) is simply one level lower, supporting the connection between (2) and (1). In other words, (3) is not creating some postulated complexity, it is just an argument for a criterion – a repetition of a simple situation. The result is given in Fig. 11.

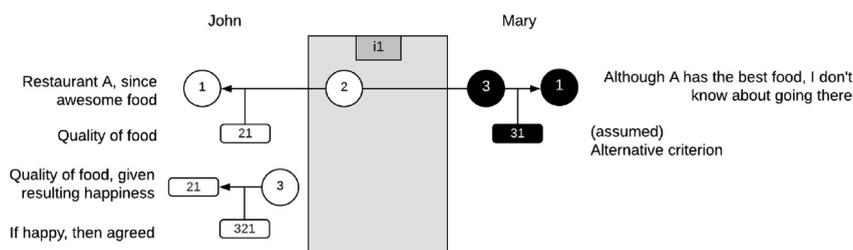


Fig. 11. ‘Complex argumentation’ represented as argumentation for criterion. 1 white = standpoint; 1 black = counter-standpoint; 2 white = argument for 1 white (Mary concedes); 3 black = argument for 1 black; 31 = criterion for 1 black; 321 = criterion for the criterion 21.

3.2. Polylogues

The question of polylogues, i.e., dialogues with more than two sides, has received much attention in the literature on argumentation theory, discourse analysis and pragmatics (Bou-Franch and Garcés-Conejos Blitvich, 2014; Greco and De Cock, 2021; Kerbrat-Orecchioni, 2004; Khazraie and Talebzadeh, 2020; Lewiński and Aakhus, 2014). The present model is tuned to the standard dyadic setting in which one party defends a standpoint and the other party does not accept that standpoint. The question arises therefore of the ability of such an analytical apparatus to deal with polylogues.

To answer this question, we must in fact investigate two separate extensions. First, there is the situation in which more than one person is standing on one side (e.g., white) and more than one person on the other side (e.g., black). If John and Jack argue in favor of Restaurant A and Mary and Jill do not accept the proposal to go to Restaurant A, then the two men fulfill one dialectical role while the two women fulfill the other role. This is not a particularly unusual development so long as the two groups (John + Jack and Mary + Jill) do not deviate from one another within their ‘group’. Taking the two pairs into consideration is nothing more than a matter of labelling. Second, there is the situation in which parties start to deviate from one another as the conversation progresses. Let us start with a trilogue to illustrate the situation. Imagine a polylogue in which John and Mary disagree on the standpoint and Mary rejects John's argument but Jill rejects John's criterion. Below, we indicate the type of move between square brackets:

John: Let's go to Restaurant A	[standpoint]
Mary: I don't know about A	[standpoint]
Jill: Yea, me neither...	[standpoint]
John: But Restaurant A has the best food	[support]
Mary: No it doesn't!	[reject argument]
Jill: But have you looked at their prices?	[reject criterion]
Mary: They're not that bad, actually...	[reject Jill's argument]

The reader will notice right away that the interesting part of this trilogy is Mary's last remark which seems to start a separate conversation with Jill. We have chosen such a development because it illustrates how an issue-based analysis can provide an advantage in representing the way in which Jill and Mary 'branch out' in their separate dialogue. Without noticing the change of stock issue, we might be surprised that Mary jumped on John's side all of a sudden. But in an issue-based analysis, agreeing that the standpoint is defended *on one stock issue* and rejected *on another stock issue* is not at all a sign of inconsistency: judged based on food quality, Mary is not on board (i.e., 1 black), judged based on price, she is (i.e., 1 white). The resulting situation appears in Fig. 12 below.

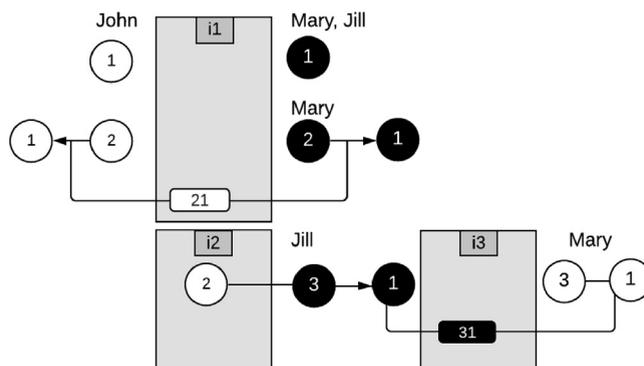


Fig. 12. John, Mary and Jill engage in a polylogue. 1 white = standpoint; 1 black = counter-standpoint; 2 white = argument for 1 white; 2 black = argument for 1 black; 21 = criterion shared by John & Mary; 3 = new argument for 1 black; 31 = criterion shared by Mary and Jill.

3.3. The acceptance-relevance-sufficiency triplet

Most traditional approaches to the analysis of argumentation make a distinction between three reasons for rejecting the defense of a standpoint: lack of acceptability, lack of relevance and lack of sufficiency (e.g., Johnson and Blair, 2006; Snoeck Henkemans, 2000; Walton, 1982). An argument is in this system either not established and hence unacceptable, or not meaningfully connected to the standpoint and hence irrelevant, or not bringing the point home and hence insufficient. In our system, a defense is simply accepted or rejected, so it would seem that we are missing out on an in-built complexity in the representation of argumentative reality. In this section, we want to explain our choice for the simpler model.

Although widely accepted, the distinctions between the three terms are in fact fraught with difficulties. The first problem is that the term 'acceptance' (and its variant, 'acceptability') can in fact also cover the other two forms of refusal and is thus not a par with them. When an argument is deemed irrelevant or insufficient, then we know, amongst other things, that argument is not accepted as a defense of that standpoint. In some cases, the term 'argument' is meant to stand for the combination of the argument and the criterion (so both '2 white' and '21 white', in Fig. 12). But the same holds in this case. If the combination of argument and criterion is found defective in some sense, either because of relevance or sufficiency, then it is also *ipso facto* found unacceptable. Acceptance seems to be a term that describes the refusal of a defense at its most basic phenomenological level.

As for the other two criteria, i.e., relevance and sufficiency, we understand the difference as follows. To say that an argument is irrelevant or insufficient is in fact to reject the criterion pertaining to that argument. This is why in our system, the two rejections are not distinguishable – they are, dialectically speaking, the same refusal to accept the criterion. The intuitive difference between irrelevance and insufficiency – which is the starting point for its conceptualization in the studies mentioned – is that when an argument is irrelevant it is banned from usage relative to a standpoint *altogether*, whereas when it is insufficient the argument can be used but it will not *by itself* establish that standpoint. When John says: "Let's go to Restaurant A because it has the best food", Mary can say "It is irrelevant how good the food is!" (relevance) or "Well it's not just about the quality of the food, is it?" (sufficiency). In both cases, Mary would be rejecting the criterion. The dialectical difference here is that when Mary deems the argument irrelevant in the first case, the argument cannot be used to corroborate with other things in the decision rule. If something is deemed irrelevant, then it is off the table for that specific standpoint. Importantly, as scholars have often pointed out, it is not because the *argument* is rejected, but because the *criterion* on which it is based is rejected (i.e., Mary might still think that, as it happens, the food is good). In the case of sufficiency, the argument is *not* off the table. In fact, it is deemed necessary that the arguer corroborates this issue with other stock issues. Interestingly, however, the use of both relevance and sufficiency as discussion criteria seem to suggest that the discussants are (deliberately or not) engaged in some form of issue-based understanding of their disagreement: in both cases, Mary is concerned with how well a certain stock issue is or is not dealt with once it is activated.

4. Conclusion

In this paper we have proposed an issue-based method for the analysis of the structure of argumentative discussions. The method is at the same time a way to fill the gap created by the sidelining of 'stock issues' in the analysis of disagreement ('conflict', 'controversy' etc.) and a way to bring together the core ideas in many existing methods for the pragmatic analysis of argumentative interaction as undertaken in pragmatics, discourse analysis, argumentation theory and conflict studies. As mentioned in the previous section, there are still many analytical and theoretical aspects to be discussed. Through this contribution we sought to lay the ground for an approach of these aspects and further advances in the 'disentanglement' of argumentative discourse. As for the visual representation, a two-fold litmus test awaits. First, it remains to be seen whether the visual means chosen here will be able to accommodate a truly complex discussion such as a policy controversy (Fischer and Gottweis, 2013), a public controversy (Greco and De Cock, 2021) or a scientific one (Harker, 2015). Since we are, for better or for worse, stuck with the two-dimensional, non-dynamic environment of a scientific paper, the resulting reconstruction of such 'gigantic' debates must fit this environment and be illuminating in these conditions. Second, it remains to be seen whether the visual means chosen here can be translated into a dynamic environment where parties can (perhaps in real time) add or delete elements to the reconstruction as the discussion progresses. In any case, the heuristic and educational added value of the present tool relative to the traditional 'argumentation diagram' or 'argumentation structure' is given by its ability to follow an interaction – if only *ex post facto* – along its development as opposed to only working with the end-result. For this, the issue-based analysis of argumentative discourse proposed here can be described as not only dialectical (focusing on how burden of proof and common ground is managed) but also dialogical (focusing on how parties react to one another and engage in the decision-making process).

Declaration of competing interest

No conflict of interest.

References

- Aakhus, M., Lewiński, M., 2017. Advancing polylogical analysis of large-scale argumentation: disagreement management in the fracking controversy. *Argumentation* 31 (1), 179–207.
- Austin, J.L., 1962. *How to Do Things with Words*. Clarendon Press, Oxford.
- Bartley, E.R., 2015. *The Tidelands Oil Controversy: A Legal and Historical Analysis*. University of Texas Press.
- Bearn, G.C.F., 1986. Nietzsche, Feyerabend and the voices of relativism. *Metaphilosophy* 17 (2/3), 135–152. Retrieved from www.jstor.org/stable/24436901.
- Bou-Franch, P., Garcés-Conejos Blitvich, P., 2014. Conflict management in massive polylogues: a case study from YouTube. *J. Pragmat.* 73, 19–36. <https://doi.org/10.1016/j.pragma.2014.05.001>.
- Braet, A.C., 1984. *De klassieke Statusleer in Modern Perspectief: Wolters-Noordhoff*.
- Braet, A.C., 1999. Aristotle's almost unnoticed contribution to the doctrine of stasis. *Mnemosyne* 52 (4), 408–433.
- Carter, M., 1988. Stasis and kairos: principles of social construction in classical rhetoric. *Rhetor. Rev.* 7 (1), 97–112.
- Cornish, F., 2008. How indexicals function in texts: discourse, text, and one neo-Gricean account of indexical reference. *J. Pragmat.* 40 (6), 997–1018. <https://doi.org/10.1016/j.pragma.2008.02.006>.
- Feyerabend, P., 1961. Knowledge without Foundations; Two Lectures Delivered on the Nellie Heldt Lecture Fund. Oberlin, Oberlin College.
- Fischer, F., Gottweis, H., 2013. The argumentative turn in public policy revisited: twenty years later. *Crit. Pol. Stud.* 7 (4), 425–433. <https://doi.org/10.1080/19460171.2013.851164>.
- Freeley, A.J., Steinberg, D.L., 2009. *Argumentation and Debate: Critical Thinking for Reasoned Decision Making*, twelfth ed. Wadsworth/Cengage Learning, Boston, MA.
- Giltrow, J., Stein, D., 2017. *The Pragmatic Turn in Law: Inference and Interpretation in Legal Discourse*, vol. 18. Walter de Gruyter GmbH & Co KG.
- Greco, S., De Cock, B., 2021. Argumentative misalignments in the controversy surrounding fashion sustainability. *J. Pragmat.* 174, 55–67. <https://doi.org/10.1016/j.pragma.2020.12.019>.
- Greco, S., Palmieri, R., Rigotti, E., 2016. Institutional argumentation and conflict prevention: the case of the Swiss Federal Data Protection and Information Commissioner. *J. Pragmat.* 105, 39–53. <https://doi.org/10.1016/j.pragma.2016.09.014>.
- Green, N.L., 2010. Representation of argumentation in text with rhetorical structure theory. *Argumentation* 24 (2), 181–196.
- Hansen, H.V., Pinto, R.C., 1995. *Fallacies: Classical and Contemporary Readings*. Pennsylvania State University Press, University Park, Pa.
- Harker, D., 2015. *Creating Scientific Controversies: Uncertainty and Bias in Science and Society*. Cambridge University Press, Cambridge.
- Harpine, B., 1977. Stock issues in Aristotle's rhetoric. *J. Am. Forensic Assoc.* 14 (2), 73–81.
- Hoppmann, M.J., 2014. A modern theory of stasis. *Philos. Rhetor.* 47 (3), 273–296.
- Ihnen Jory, C., 2012. *Pragmatic Argumentation in Law-Making Debates: Instruments for the Analysis and Evaluation of Pragmatic Argumentation at the Second Reading of the British Parliament*. Sic Sat, Amsterdam.
- Johnson, R.H., Blair, J.A., 2006. *Logical Self-Defense*. International Debate Education Association, New York.
- Katzav, J., Reed, C., 2008. Modelling argument recognition and reconstruction. *J. Pragmat.* 40 (1), 155–172. <https://doi.org/10.1016/j.pragma.2007.07.004>.
- Kerbrat-Orecchioni, C., 2004. Introducing polylogue. *J. Pragmat.* 36 (1), 1–24. [https://doi.org/10.1016/S0378-2166\(03\)00034-1](https://doi.org/10.1016/S0378-2166(03)00034-1).
- Khazraie, M., Talebzadeh, H., 2020. "Wikipedia does NOT tolerate your babbling!": impoliteness-induced conflict (resolution) in a polylogal collaborative online community of practice. *J. Pragmat.* 163, 46–65. <https://doi.org/10.1016/j.pragma.2020.03.009>.
- Lewiński, M., Aakhus, M., 2014. Argumentative polylogues in a dialectical framework: a methodological inquiry. *Argumentation* 28 (2), 161–185.
- MacCormick, N., 2005. *Rhetoric and the Rule of Law: a Theory of Legal Reasoning*. Oxford University Press, Oxford.
- Marres, N., 2015. Why map issues? On controversy analysis as a digital method. *Sci. Technol. Hum. Val.* 40 (5), 655–686.
- McCloskey, J.C., Camp, L.R., 1964. A study of stock issues, judging criteria, and decisions in debate. *South. J. Commun.* 30 (2), 158–168.
- Mochales, R., Moens, M.-F., 2011. Argumentation mining. *Artif. Intell. Law* 19 (1), 1–22.
- Muhuri, P.K., Shukla, A.K., Abraham, A., 2019. Industry 4.0: a bibliometric analysis and detailed overview. *Eng. Appl. Artif. Intell.* 78, 218–235.
- Schulz, M., 2010. The dynamics of indexical belief. *Erkenntnis* 72 (3), 337–351.
- Schut, D., Author, J.H.M., 2014. *Argumentatie en Debat*. Den Haag: Boom Lemma.
- Searle, J.R., 1995. *The Construction of Social Reality*. Free Press, New York.

- Snoeck Henkemans, A.F., 2000. State-of-the-art: the structure of argumentation. *Argumentation* 14 (4), 447–473. <https://doi.org/10.1023/a:1007800305762>.
- Stelmach, J., Brozek, B., 2006. *Methods of Legal Reasoning*, vol. 78. Springer.
- Swierstra, T., Rip, A., 2007. Nano-ethics as NEST-ethics: patterns of moral argumentation about new and emerging science and technology. *NanoEthics* 1 (1), 3–20. <https://doi.org/10.1007/s11569-007-0005-8>.
- van Eemeren, F.H., 2015. *Reasonableness and Effectiveness in Argumentative Discourse*. Springer, Dordrecht.
- van Eemeren, F.H., Garssen, B., Krabbe, E.C.W., Snoeck Henkemans, A.F., Verheij, B., Author, J.H.M., 2014. *Handbook of Argumentation Theory*. Springer Reference, Dordrecht.
- van Eemeren, F.H., Grootendorst, R., 1992. *Argumentation, Communication, and Fallacies : a Pragma-Dialectical Perspective*. L. Erlbaum, Hillsdale, N.J.
- van Eemeren, F.H., Houtlosser, P., Snoeck Henkemans, A.F., 2007. *Argumentative Indicators in Discourse*. Springer, Dordrecht, The Netherlands.
- van Eemeren, F.H., Snoeck Henkemans, A.F., 2016. *Argumentation: Analysis and Evaluation*. Routledge, New York.
- van Rees, M.A., 2007. Discourse analysis and argumentation theory: the case of television talk. *J. Pragmat.* 39 (8), 1454–1463. <https://doi.org/10.1016/j.pragma.2007.04.005>.
- Walton, D., 1982. *Topical Relevance in Argumentation*. J. Benjamins, Amsterdam ; Philadelphia.
- Walton, D., 1988. Burden of proof. *Argumentation* 2 (2), 233–254.
- Walton, D., 2011. Defeasible reasoning and informal fallacies. *Synthese* 179 (3), 377–407. <https://doi.org/10.1007/s11229-009-9657-y>.
- Walton, D., 2014. *Burden of Proof, Presumption and Argumentation*. Cambridge University Press, New York, NY.
- Walton, D., Toniolo, A., Norman, T.J., 2019. Dialectical models of deliberation, problem solving and decision making. *Argumentation* 1–43.

Dr. Eugen Popa is a communication scholar who works in the field of STS (science and technology studies) and RRI (responsible research and innovation). He works as postdoctoral researcher at the Department of Communication, Philosophy and Technology where he is involved in various European and Dutch projects relating to stakeholder interaction in innovation. His work has been published in *Informal Logic*, *Science and Public Policy*, *Public Understanding of Science*, *Philosophy and Technology*, *Cogency*. He is the winner of the 2016 J. A. Blair prize for the study of argumentation.

Eugen Popa obtained his PhD in 2015 with a thesis on argumentative interactions in science (Popa, 2016b) and published papers on the reasonableness of argumentative interactions (Popa, 2016a), discussion structures for reconstructing scientific debates (Popa, Blok and Wesselink, 2020b), friction between stakeholders in innovation projects (Popa, Blok and Wesselink, 2020c), technological conflict (Popa, Blok and Wesselink, 2020a).

He has been involved as a postdoctoral researcher in several Horizon 2020 such as RRI Tools, RiConfigure, NewHoRRizon and since March 2021 in the RRIstart project. He has also worked with the Dutch Health Council in studying the interaction between scientists and policy makers in cases of public controversy.

Highlighted publications:

Popa, E. O. (2016a). Criticism without fundamental principles. *Informal Logic*, 36(2), 192–216.

Popa, E. O. (2016b). *Tought experiments in academic communication*. Doctoral dissertation. University of Amsterdam. Amsterdam. Retrieved from https://pure.uva.nl/ws/files/2759368/176326_proefschrift_eugen_popa_UBA_complete.pdf

Popa, E. O., Blok, V., & Wesselink, R. (2020a). An Agonistic Approach to Technological Conflict. *Philosophy & Technology*, 1–21. doi: <https://doi.org/10.1007/s13347-020-00430-7>

Popa, E. O., Blok, V., & Wesselink, R. (2020b). Discussion structures as tools for public deliberation. *Public understanding of science*, 29(1), 76–93. <https://doi.org/10.1177/0963662519880675>

Popa, E. O., Blok, V., & Wesselink, R. (2020c). A processual approach to friction in quadruple helix collaborations. *Science and Public Policy*. <https://doi.org/10.1093/scipol/scaa054>

Dr Jean Wagemans is a philosopher who specializes in rhetoric, argumentation, and debate. He is a senior researcher at the Amsterdam Centre for Language and Communication (ACL) and serves as the Chair of the Department of Speech Communication, Argumentation Theory, and Rhetoric of the University of Amsterdam.

Wagemans is the initiator of the Periodic Table of Arguments, a systematic and comprehensive overview of persuasive techniques with applications in formal linguistics, rhetoric-checking, and explainable artificial intelligence (XAI). His research collaborations include the RPA Human(e) AI funded research project Towards an Epistemological and Ethical XAI, the HORIZON 2020 funded COST action APPLY – European network for argumentation and public policy analysis, and the NWO funded research project Resistance to Metaphor.

Wagemans co-authored the *Handbook of Argumentation Theory* (2014) and *Argumentation and debate* (in Dutch, 2014). His other publications include scientific articles, book reviews, and popularizing columns. Wagemans gives guest lectures, invited talks, and keynote speeches at international conferences and regularly appears in the media to talk about his research and to provide expert commentary on current affairs.

At the University of Amsterdam, Wagemans teaches courses and supervises theses at the BA, MA, and PhD level. He is a member of the editorial board of the journal *Argumentation* and a reviewer for *Informal Logic*, *Argument & Computation*, *Journal of Argumentation in Context*, and other scientific journals. Wagemans co-directed the ISSA 9th *International Conference on Argumentation* and was a member of the scientific panels of ECA 2, ARGAGE 2018, DIS 3, and other conferences in the field.