

Advancing Polylogical Analysis of Large-Scale Argumentation: Disagreement Management in the Fracking Controversy

Mark Aakhus & Marcin Lewiński

Argumentation

An International Journal on Reasoning

ISSN 0920-427X

Volume 31

Number 1

Argumentation (2017) 31:179-207

DOI 10.1007/s10503-016-9403-9

ARGUMENTATION

Volume 31 No. 1 2017

ISSN 0920-427X

Your article is protected by copyright and all rights are held exclusively by Springer Science +Business Media Dordrecht. This e-offprint is for personal use only and shall not be self-archived in electronic repositories. If you wish to self-archive your article, please use the accepted manuscript version for posting on your own website. You may further deposit the accepted manuscript version in any repository, provided it is only made publicly available 12 months after official publication or later and provided acknowledgement is given to the original source of publication and a link is inserted to the published article on Springer's website. The link must be accompanied by the following text: "The final publication is available at link.springer.com".

Advancing Polylogical Analysis of Large-Scale Argumentation: Disagreement Management in the Fracking Controversy

Mark Aakhus¹ · Marcin Lewiński²

Published online: 1 June 2016
© Springer Science+Business Media Dordrecht 2016

Abstract This paper offers a new way to make sense of disagreement expansion from a polylogical perspective by incorporating various *places* (venues) in addition to *players* (parties) and *positions* (standpoints) into the analysis. The concepts build on prior implicit ideas about disagreement space by suggesting how to more fully account for argumentative context, and its construction, in large-scale complex controversies. As a basis for our polylogical analysis, we use a *New York Times* news story reporting on an oil train explosion—a significant point in the broader controversy over producing oil and gas via hydraulic fracturing (fracking).

Keywords Argumentation · Controversy · Deliberation · Design · Disagreement space · Fracking · Infrastructural inversion · Infrastructure · Polylogue · Venues

1 Introduction

Controversy in the contemporary globalized, mediated environment presents an opportunity for reflecting on argument analysis. A practical and theoretical problem for argumentation theory is that argument in contemporary controversies and deliberation involves many players, many positions, and many places (Aakhus and Lewiński 2011, 2015). While argumentation theory has attended to the one-to-one dialogue in dialectic and the one-to-many argument in rhetoric, it is the many-to-many *polylogue* that requires further conceptualization for argumentation theory (Lewiński 2010; Lewiński and Aakhus 2014; Lewiński and Mohammed 2015). The dominant analytic methods in argumentation studies are dialectical analyses of dyadic

✉ Mark Aakhus
aakhus@rutgers.edu

¹ School of Communication and Information, Rutgers, The State University of New Jersey, New Brunswick, NJ, USA

² ArgLab, Institute of Philosophy, FCSH, Universidade Nova de Lisboa, Lisbon, Portugal

disagreements or rhetorical studies of a speaker addressing an audience (Lewiński and Aakhus 2014). Such analyses proceed on a set of assumptions about argument in communication that posits (1) two parties (proponent vs. opponent) exchange reasons and criticisms to (2) justify their own standpoint and refute the other's contradictory standpoint on an issue where (3) argumentation typically takes place in one fixed and definable setting. While these are analytic simplifications needed to construct tidy and efficient models of argument, rather than descriptive claims, they have become powerful assumptions for the conceptualization of argumentation. They have clearly led to important insights about argumentation and yet they necessarily gloss over aspects of communication and features of the global, mediated context that are potentially significant matters for understanding argumentation.

Here we expand our inquiry into polylogue by attending to some consequences of overgeneralizing the dyadic assumptions for argumentation analysis. We argue that controversies and deliberations such as public controversies over oil production and transportation quite clearly break these assumptions. The players are numerous and fluctuating; the positions do not amount to a dyadic contradiction but rather involve a set of multiple contrary standpoints; and the places for argument are constantly shifting and are strategically selected, designed, and argued about. In this way they become polylogues—that is, dialogues more complex than basic dyadic interactions, or di-logues. This, in itself, is unremarkable, given that most public interactions are in fact multilateral. What is remarkable, though, is that argumentation theory applies its dyadic, legally-inspired models to capture the strategic shape and rational quality of such polylogues.

In what follows, we expand our research by making a positive case for polylogue analysis after a critical case has been made. This positive case expands in particular our understanding of how the management of different places (or: venues) for argument is crucial to argumentation analysis. Polylogue analysis offers concrete methods for grasping multiple players and positions—elements we have already closely investigated—and for drawing close attention to how multiple places are strategically tackled in managing and shaping disagreement. Moreover, in our previous contribution (Lewiński and Aakhus 2014) we used a stylized case to establish the point—here, by contrast, we use elements of an actual case to show the extension of polylogical principles of argument analysis to a different scale. In so doing, we illustrate the capability of the polylogical approach to adequately grasp actual, large-scale forms of argumentation such as in public controversies.

We develop our points as follows. First, we show how main current approaches to argument analysis recognize in their examination of a concrete controversy that polylogues exist as an empirical phenomenon. Yet, they quickly return to the comfort zone of dyadic theoretical assumptions and models. Up to this point, the notion of “polylogue” is purely empirical and pre-theoretical. Our second step is to give this empirical notion a theoretical shape. What can our concepts consistently say about polylogues? We need theoretical and methodological extensions, starting from a good idea of how players and positions are central to our tool-box of argumentation analysis and propose how place can become part of the tool-box. We do so by providing a theoretical grounding in terms of argumentation as disagreement expansion and by analyzing a case of controversy over oil train

explosions in the USA. This is what we primarily hope to achieve in this contribution. Finally, we discuss the consequences of polylogue analysis for argumentation theory by asking: What would be a possible step three? One way is to extend the extant theories; another is to build a more radically novel model of analysis. This remains up for discussion—and we sketch some avenues for this discussion. Either way, we hope to bring about concrete benefits to argumentation theory via the polylogical analysis of disagreement space expansion. Primarily, a better understanding of the shape and quality of actual multi-party argumentation in public controversies. This, as we show, amounts to a better theory-reality fit.

1.1 Toward a Polylogical Theory of the Polylogical Reality of Argument

Polylogues—typically defined as dialogues more complex than simple one-on-one di-logues—have been well described in empirical analyses of numerous conversation and discourse analysts as escaping prevailing dyadic understanding of interaction (Bou-Franch and Garcés-Conejos Blitvich 2014; Bruxelles and Kerbrat-Orecchioni 2004; Clark and Carlson 1982; Goffman 1981; Kerbrat-Orecchioni 1997, 2004; Levinson 1988; Marcoccia 2004; Maynard 1986; Traverso 2004). Indeed, polylogues may be a more common and typical form of our daily interactions than neat one-to-one conversations (Kerbrat-Orecchioni 2004). This renders the dominant dyadic models of dialogue analysis inadequate in grasping features of everyday communicative reality as important as multiple-recipient design, discursive coalitions, simultaneous sub-discussions, and many other.

We have brought these results to bear on argumentation theory (Lewiński 2010, 2013; Lewiński and Aakhus 2014; Aakhus and Lewiński 2011). We argued that while such inspiration from empirical discourse studies is necessary, it is not straightforward for argumentation theory, where the crucial concern is a normative judgement of how a given position fares against doubts, criticisms, and counter-positions. We therefore defined *argumentative* polylogue not simply as a discussion between multiple participants, but rather multiple different argumentative parties defending their distinct positions. On such a view, a multi-participant debate in a parliament between two political parties with consistent programs would be a dialogue, rather than polylogue. Our main argument is that polylogue—quite typical for public deliberations and controversies—cannot be easily “fit into” the simple dialectical framework consisting of a proponent facing an opponent.

We have pointed out the puzzling prospects of the standard account for controversial matters when there is multi-party interaction—polylogue. Dialectical analysis addresses polylogue by either reducing a variety of distinct positions discussed to two basic camps in a discussion (one pro and one con) or by treating polylogue as a multitude of sub-discussions composed of two sides on one issue. Both analytic maneuvers gloss over the empirical and normative complexity of polylogue. For instance, a dyadic reconstruction of a common committee discussion where members support only one of several options would likely overlook some noteworthy polylogical facts (Lewiński and Aakhus 2014). In our example where five committee members argue over three distinct positions, the players and positions do not neatly line up. If members A and D both disagree with C they do not necessarily agree with

each other. They seem allied in their criticism of C, but they also hold contrary positions vis-à-vis each other, thus being clearly two different, competing players. Altogether, we argued that applying the dyadic dialectical method *is* adequate, even necessary, for some localized episodes of argumentative exchanges where two parties clash, it does not add up to a satisfactory account of the complex multi-party dispute. Similarly, the somewhat static and asymmetric rhetorical account of an *arguer qua speaker* facing (possibly multiple) *audience(s)* does not do full justice to the interactive discursive dynamics of many ongoing controversies such as public disputes (Lewiński and Aakhus 2014). Understandably, if the aim of argument analysis is only to assess the rationality of a single argument or evaluate the maneuvers of a particular arguer, then dyadic assumptions might suffice. However, public controversies are dynamic activities where multiple parties pursue multitude of positions that unfold over time in a variety of places.

Based on these prior investigations, in this paper we build upon the claim that the analyses of deliberations and controversies based on dyadic assumptions hide important complexities of argumentation as it happens in controversy and deliberation. In so doing, we aim to advance the conceptualization of polylogical analysis for argumentation by taking into account the fact that contemporary controversies and deliberations happen in many places, which has been greatly afforded by information and communication technology. To this end, we will use a case about tragic train explosions during oil transportation in the USA. Most notably, there are many players claiming a stake in the production process and its consequences which leads to many positions being advanced and refuted in many places where energy production is carried out and discussed. Our aim is to propose a polylogical approach which analyzes and evaluates such a controversy for what it is—a multi-party and multi-position argumentative interaction spreading over multiple places.

To move toward polylogical analysis, we turn to argument as disagreement management (Jackson 1992; Jackson and Jacobs 1980) for empirical and theoretical grounding. On this view, parties strategically respond to the potential for disagreement to emerge and expand. Disagreement management has revealed how disagreement is organized around actions within practical activities and the positions taken up by players regarding those actions, and this premise extends to public controversies. We propose here that disagreement expansion not only occurs over positions and players but it also expands over place. This additional element is especially important for understanding large scale controversies and deliberations. We thus seek to advance analysis of argumentation as disagreement management from a polylogical perspective by incorporating various *players* (parties), *positions* (standpoints), and *places* (venues) into the analysis.

2 Treating Polylogue as Di-Logue in the Argumentation Analysis of Public Controversy over Energy Production

To see how the dyadic assumptions about argumentation can hide the polylogical character of disagreement expansion and the consequences for disagreement management in public controversies, we consider some analyses of argumentation

over energy production, as it is a constant source of contemporary public controversy. The economic, social, political, and environmental impacts of various technologies (coal, natural gas, oil, nuclear power, hydropower, wind and solar energy, etc.) are hotly debated between all the parties involved: from producers, distributors, state regulators, environmental groups, consumers, to local communities affected by energy production.

A good example of such a controversy extensively analyzed with the tools of various approaches in argumentation theory is Royal Dutch Shell's involvement in the oil production in Nigeria in the 1990's (van Eemeren 2010, Ch. 6; van Eemeren and Houtlosser 1999, 2002; Johnson 2002; Leff 2006; Tindale 1999, Ch. 5). Among the key issues of this public debate was Shell's cozy relationship with the Nigerian military regime, its lack of concern for the environment and local communities and, in particular, its alleged complicity in the death of Ken Saro-Wiwa, a prominent Nigerian dissident and environmental activist. Shell decided to manage these issues by publishing an advertorial "Clear thinking in troubled times" in major world newspapers in November 1995—which served as the basis for extensive analyses, especially for pragma-dialecticians (van Eemeren and Houtlosser) and rhetoricians (Tindale). Of interest is how the dialectical and rhetorical analysis handles the fact of many players, many positions, and many places characteristic of contemporary controversies.

2.1 Multiple Players

In their pragma-dialectical analysis, van Eemeren and Houtlosser clearly reconstruct the argumentative complexities of the controversy in this case in terms of dyadic assumptions. In so doing, they make interesting maneuvers to contend with the polylogical realities of the context in which the advertorial comes to be. They see that Shell addresses "the general public" with an attempt to refute the accusations leveled against the company by campaigners such as Greenpeace. However, for their analysis to move forward they make a first analytic maneuver to contend with the fact that there are many parties involved: "Dialectically speaking we have here two opposing parties—Shell and the campaigners—and a third party—the public—that is supposedly neutral" (van Eemeren and Houtlosser 2002, p. 148). Later, using an updated terminology, van Eemeren argues that the skeptical "general public" is Shell's *primary audience* accessed via an ostensible argument with the oppositional *secondary audience*, the campaigners. Indeed, careful management of disagreement with the two is "a crucial element in Shell's strategic maneuvering at the confrontation stage" (van Eemeren 2010, p. 169). This is achieved by "dissociating the general public [...] from the campaigners who reacted against Shell's involvement in Nigeria. [...] This strategic separation between the public and the campaigners has the advantage to Shell that the company can treat the public as a possible ally" (pp. 169–170).

The pragma-dialectical study meticulously analyzes the textual and contextual elements in Shell's advertorial, precisely reconstructs the structure of its arguments, and identifies an array of clever argumentative strategies. Yet, despite openly conceding there are (at least) three parties to the controversy, and that this fact is

one of the main vehicles for Shell's strategic maneuvering, pragma-dialectics reconstructs the polylogue as though it is basically dyadic. The chief analytic move is to approach this controversy as argumentative activity between two main parties: Shell and the general public or Shell and the campaigners. We have identified this as an established method of reducing multi-party polylogue to an argumentative discussion between two basic camps (see Lewiński and Aakhus 2014). This method is evident in the way the dialectical profiles are applied in this case. *Dialectical profiles* are step-by-step representations of dialectically relevant moves in an argumentative discussion between a protagonist and an antagonist (van Eemeren 2010, pp. 98–100). In the Shell analysis, the reconstruction involves merging differing opposing parties into a single category of “Opponents” (van Eemeren 2010, pp. 171–174). The *Opponents* thus combine the primary audience (“the general public”) and the secondary audience (“the campaigners”) as one role (antagonist) of the two necessary for the dialectical profile—the other one being Shell (protagonist).

What is evident in Shell's advertorial are argumentative dynamics that go beyond a simple dyadic clash between *a* proponent and *an* opponent over an issue (or a series of discrete issues). There are, instead, numerous distinct groups which might oppose, doubt, or be concerned with Shell's position. Tindale makes this even clearer than van Eemeren and Houtlosser in his analysis of the case: Shell “can expect a wide audience ranging from the hostile to the sympathetic to the indifferent” (Tindale 1999, p. 127). While “the indifferent” largely correspond to the neutral general public in van Eemeren's analysis and “the hostile” are “the campaigners”, Tindale's analysis of the Shell advertorial discusses yet another “subgroup of principal interest” for Shell's argument: the “sympathetic, but concerned” “members of the business community, particularly investors in the company, who have an economic interest in the issue” (1999, p. 127). Interestingly, for Tindale, Shell's argumentation is heavily driven by the appeal to “the business component of its audience”, entirely left out from van Eemeren's study: “A bottom-line position that permeates the discourse is that Shell has no expectation of pulling out from Nigeria. The company's future economic success in the region rests in part on convincing investors of this.” (1999, p. 128).¹

With this rhetorically-based analysis, we arrive at an understanding of a disagreement where at least four parties play a part on at least two ostensible issues where a range of positions are taken: Shell, anti-Shell campaigners, Shell's concerned investors, and the general international public. This, arguably, is still a simplification. One can easily see Shell's industrial competitors in the region, the Nigerian government, potential litigants (Saro-Wiwa's family), affected Ogoni communities in Nigeria, and legal authorities in Nigeria and Holland (Shell's headquarters) as other possible stakeholders/players/parties in this very

¹ Johnson (2002, p. 41) and Leff (2006, p. 203, n. 2) both make a similar argument in their analysis of this case. Indeed, looking from the perspective of the strategic objectives of a modern corporation, the entire argumentation in Shell's advertorial is eventually subordinate to its claim of “future economic success”. Shell is addressing various stakeholders with complex argumentation, stating that they are a growing and socially responsible company which, therefore, is worth dealing with, whether as an investor, government, business partner, community member, activist, or customer.

controversy.² If Shell's text indeed "has been constructed with care and deliberation" (Tindale 1999, p. 127), then we can reasonably expect that such (actual or potential) sources of doubt and disagreement have been carefully and deliberately managed in this one-page message.

Tindale thus recognizes the multi-party character of the controversy, aided by the rhetorical framework of one-to-many communication, where a speaker crafts an argumentative message by attending to the needs and objections of multiple audiences. This is crucial to identifying various players engaged in the controversy, as staged in a carefully designed corporate message. Yet, it does not quite take us toward a polylogical perspective: the focus is still somewhat statically fixed on one text by one prominent player, rather than on a series of texts exchanged between multiple players through dynamic public interaction.

2.2 Multiple Positions

The many positions plausibly available in this context are also reduced to the dyadic assumptions. Over and above the "strategic maneuver" by Shell van Eemeren pointedly identifies a related "remarkable change [...] in the defense of Shell's standpoint that its involvement in Nigeria is justified" (2010, p. 175). Initially, Shell shapes its advertorial as a form of (self-)apologia, a type of discourse where the blame is being denied through arguments. The company quite straightforwardly addresses the campaigners' accusations before the court of the "general public." However, when it comes to the accusation of colluding with the Nigerian regime, Shell re-frames its message in terms of a deliberative activity type of a policy discussion: "Shell thus pretends that the issue of its support for the regime is to be treated as a policy issue instead of a quasi-judicial blame issue, thereby moving the accusation it has to face from an adjudicatory apologia to a deliberative policy discussion" (van Eemeren 2010, p. 175). Van Eemeren further observes that due to this shift "the rhetorical situation shifts accordingly in the way enforced by Shell" (2010, p. 182).

This shift is significant for the way positions in the controversy can emerge. Adjudicative issues are typically polar, yes/no issues ("Is Shell complicit in the death of Saro-Wiwa?") while deliberative issues are instead open issues ("What shall the company do now?") (see Lewiński 2014). Accordingly, adjudicative issues are characteristically binary (guilty/innocent), while deliberative issues open up a space of various possible policies (withdraw from Nigeria/stay but change business model/continue business as usual, etc.). Multiplying the stance on the apportion of blame by the possible courses of action Shell can implement, we can map the distinct positions chief players in this controversy take up. Shell claims it is innocent and will therefore basically continue business as usual. Environmental campaigners claim the exact opposite: Shell is guilty and should simply pull out from Nigeria. Concerned investors might be agnostic over the blame, but would probably promote some change in the business model so that the company stays unchallenged in

² In an endnote, Tindale himself recognizes that "we can imagine other interested subgroups", and mentions Shell's competitors and Nigerian expatriates opposing the government (1999, p. 215, n. 1).

Nigeria to generate future profits. Some Nigerians may be adamant about the company being guilty of wrongdoing, but would like to see it stay in the country and introduce citizens rather than government-friendly policies as the best reparation. Yet differently, competitors in the region might be wary of accusations and would rather like Shell to be acquitted (“Can we not easily be accused of similar practices?”) but might be pleased with the prospect of such a prominent competitor leaving the region and freeing up opportunities for exploration by others.

Overall, the positions taken are in fact a complicated array of positions across the adjudicative and deliberative issues for any one party or one party in relation to another. Neither van Eemeren, nor Tindale, Leff or Johnson take full stock of this genuine variety of contrary positions at play in this controversy. We see such omissions as blind spots, which significantly weaken the purported goal of the entire analysis: the “determining of the strategic function of argumentative moves” in this controversy (van Eemeren 2010, Ch. 6; see Lewiński and Aakhus 2014).

2.3 Multiple Places

As van Eemeren notes, “taking account of the communicative activity type in which the discourse takes place can have real consequences for determining the strategic function of argumentative moves and, as a consequence, for the reconstruction of the argumentation structure” (2010, p. 176). The point of taking strategy into account is to articulate the pragmatic function and propositional content of individual moves from the communicative context. Van Eemeren sees that an apologia is performed within an advertorial, which he (2010, p. 175) explains to be a communicative activity type common to the domain of commercial communication that involves a mixed, hybrid genre of promotion and adjudication. He sees that the apologia produced by Shell is a vehicle for strategic maneuvers within the commercial domain that exploit the advertorial by attempting to generate a new shift in genre from promotion to adjudication to deliberation. That is, to manage the rhetorical demands of the situation as these relate to the audience roles of the general public and the campaigners. Shell’s clever management of the right kind of genre of communicative activity to address the accusations is thus ultimately treated as a matter of background in the argumentation analysis.

The analysis of Shell’s advertorial is a good example of some prevalent conventions about conceptualizing place, including van Eemeren’s activity types, relative to argument. Basic assumptions of argumentation theory are still greatly shaped by the way legal proceedings are conducted—a lasting influence which began with Aristotle and was perpetuated in the work of Toulmin (1958) and Perelman and Olbrechts-Tyteca (1969). Argumentation happens in a fixed venue (court of law), has pre-defined rules and a cast of characters, and amounts to a dyadic clash of two contradictory positions (guilty vs. innocent in a criminal trial) sustained by two confronting parties (accuser vs. accused). However, many have noted the complexities of today’s public discourse in regard to where it occurs.

Rhetoricians, such as Kjeldsen (2006, 2013), point out how the rhetorical situation has changed due to the “increased fragmentation, complexity, mediatisation, and technocratisation of society” (2013, p. 19). In the case of the political

speaker, the political speech is no longer the product of the orator but of consultants and speech writers, and possibly the orator. The speaker faces a plurality of situations via mass and new media on the occasion of giving a speech that confronts many audiences and differential situations. Departing from Bitzer's (1968) concept of *rhetorical situation* as a unified context of a speech delivered by a speaker to an audience in a given historical context, Kjeldsen points out that public speakers "find themselves in several rhetorical situations at the same time" (2006, p. 116). As a speech travels to new audiences who take it up and react to it and demand new responses, the speech takes on a life of its own. Kjeldsen observes that "in its simplicity this [Bitzer's] model does not manifest the fragmented and mediated situationality of contemporary culture" for the political speaker because today we are largely dealing with a "changeable sea of previous, present and coming situations" (2006, p. 125). Kjeldsen embraces Bitzer's insight that every rhetorical situation contains a set of "constraints made up of persons, events, objects and relations which are part of the situation because they have the power to constrain decision and action needed to modify exigence" (Bitzer 1968, p. 8). But Kjeldsen adds that "instead of considering every situation as a discrete, isolated event, we should try to understand rhetoric as part of a general structural system of changeable situationality" (2006, p. 118). Part of the puzzle is the indeterminacy of the rhetorical situation in the relationships among speaker, audience, physical setting, discourse, socio-political circumstances, and exigency. A broadened conceptualization of rhetorical situation draws out a new sense of context that constrains and enables communicative action, which is crucial for understanding and thus analyzing polylogue.

An important dimension of van Eemeren's analysis is his attention to where the argumentation takes place. Clearly, new assumptions about audience were introduced with delimiting assumptions about issues in order to make the pragma-dialectical analysis work. It is this analytic shift by van Eemeren that discloses yet another polylogical reality to be contended with in argument analysis: in addition to players and positions, there is a third line of disagreement expansion around the place. It is most marked by the fact that Shell chose advertorials in newspapers as a particular place for argumentation. The pragma-dialectical analysis resolves these complexities of place by positing argumentative context as a hierarchy of nested relationships among domain, genre, communicative activity, and speech event. This is insightful and yet, even acknowledgement of strategic maneuvers that shift genres, stops short of engaging complexities of a structural system of changeable situationality. The aim of extended pragma-dialectics is to discipline the situational complexities and context to render a dyadic analysis. In reconsidering the Shell controversy, the choice to use advertorials must be considered against a backdrop of other places to carry out the argumentation and with the advent of the web and social media the expanded capacity to shape or even invent new places. Argumentative texts and strategic maneuvering point to the struggle over where disputation should happen as some places are more favorable than other places. Indeed, the strategic maneuvering involved in the Shell case seems to project a new way to conduct the controversy—deliberation—that places the key parties as different kinds of players and with differential accountability and

disposition of issues. Without analytic engagement with polylogical facts, this feature of how disagreement expands and how argumentation is constructed becomes hidden.

By reviewing the analyses of Shell's controversy in Nigeria, we have seen how extant argument analysis is aware of the polylogical reality but still ultimately reduces it to fit the assumptions of the normative dyadic model, whether predominantly dialectical or rhetorical. This has proven adequate and illuminating, especially when the propositional structure of arguments of a main protagonist in a single text is reconstructed and evaluated. But, as we have noted there are costs to such a reduction. This raises some complicated empirical and normative issues. We engage these issues by shifting the discussion toward disagreement management as grounds for pursuing the analysis of polylogue and the empirical and normative maneuvers for reconstructing controversy.

3 Reconstructing Argumentation as Polylogical Disagreement Management and Design

Taking polylogue into account for argument analysis can be done by seeing how multiple players, positions, and places are sources for disagreement expansion and strategy—especially strategy for shaping the disagreement space to influence how the content, direction, and outcomes of communication develop. The concept of *disagreement space* (see Jackson 1992; van Eemeren et al. 1993, pp. 95ff.) highlights argumentation as a communicative phenomenon of disagreement management. It captures the natural ways in which disagreement expansion happens as parties call-out aspects of what another has said, has meant but not said, or plausibly meant in saying something. The calling-out articulates doubt or contests the construable standpoints and virtual standpoints from another's speech act and its corresponding commitments and obligations (both intended and unintended). The practical activity in which people engage offers the natural grounds for raising doubts, objections, and disagreement as well as for proof and justification (e.g. Jackson and Jacobs 1981). The early developments of the disagreement management account focused on settings of interpersonal argumentation but the insight is not limited to interpersonal settings and is remarkably scalable for understanding the variety of practices and designs in society for managing disagreement, such as argumentation in the design of dispute resolution systems (Jacobs and Jackson 2006), the argumentative design of information and communication technologies in large scale deliberations (Aakhus 2013), and design innovations for aiding human intellect across history and in contemporary society (Jackson 2015).

Notably, there is nothing inherent in the disagreement space conceptualization that limits argumentation to the dyadic presumption. Indeed, a close look at the examples and analysis in van Eemeren et al. (1993), especially chapters 5–7, suggests that disagreement space is a discourse-centric phenomenon that can incorporate many parties and positions (see for example Aakhus and Vasilyeva 2008), and, importantly as will be seen below, many places. Furthermore, in going beyond the philosophers' claim that most human actions need some form of

practical argument for an action to be considered, to begin, and to be continued (see Searle 2001), disagreement management focuses on the idea that argument, and argument practices, arise because argument functions as a method for repairing the content or process of some ongoing activity.

It is possible to leverage the insights of disagreement management for understanding the organization of large-scale controversy as emerging within the conduct of some large-scale activity, especially by drawing upon the design turn in disagreement management theorizing about argumentation (Aakhus 2013; Jackson 2015; Jacobs and Jackson 2006). The potential for breakdown and repair in practical activities is a source of innovation and invention of argument practice and technologies. This is most obvious in the invention of particular lines of reasoning to meet the demands of situations and questions of interlocutors. But it should be equally obvious in the devising of sequences of turns with particular requirements to handle persistently occurring issues and disputes or specialized roles to guide disputants through challenging topics, such as dispute mediation (Aakhus 2003; Jacobs 1989; Jacobs and Aakhus 2002; Jacobs and Jackson 2006). It should also be obvious in the invention of technical and organizational systems to support complex decision-making (Aakhus 2013; Jackson 2015; Jacobs and Jackson 2006). The built-human environment offers resources, procedures, and technologies designed for the management of disagreement. Star and Ruhleder (1996) re-coined the concept of “infrastructure” to refer to the way in which technologies, that are built and maintained, sink into the background of human practice as the technology becomes a tool for someone in the performance of some activity. This is also true of practices invented to manage disagreement.

Jackson (2015) makes the important observation that human history is replete with inventions for argumentation, often in conjunction with changes in communication media, that have become taken for granted tools of conduct in specialized fields and in everyday communication for managing disagreement. Jackson illustrates the point by noting how scientific argument is found in specialized designs for reasoning bound up in instrumentation, computation, and experimentation, and not in “vernacular argument forms with scientific statements as their premises” (2015, p. 249, 2012). This infrastructural perspective about argumentation provides an important vantage point in understanding how argumentative context is constructed. There is an analytic and practical cost of not taking the construction of argumentative context into account (e.g. Aakhus 2013). To understand large-scale controversy, it is essential to recognize how infrastructure for argumentation co-evolves with the organization of the large-scale activity as means for managing differences in the conduct of activity.

The nature of polylogue and the prospects for theorizing polylogue in argumentation can be developed with the insights of the disagreement management perspective about the infrastructure for argumentation. In terms of players, the substance and direction of any human activity is subject to the capacity of participants, and any third-parties or systems, to jointly manage the shape of the disagreement space through the design of their argumentative moves (Jacobs and Jackson 2006). The specialized roles and knowledge actors develop about managing disagreement is consequential for how the content and direction of practical activities develop (Aakhus 2013).

In terms of positions, disagreement management sheds light on how many positions and players are organized around commitments and obligations projected through actions performed individually and collectively. Disagreement expansion around positions not only applies to speech actions but also to material or embodied action as any behavior discernible as human conduct can be construed as having meaning and intention, and thus positions can be attributed and called-out as accountable to some web of social and institutional meaning (Aakhus and Vasilyeva 2008; Aakhus et al. 2013). Here it is helpful to turn to Hutchby (1996) who describes the phenomenon of the action-opposition sequence which suggests, consistent with disagreement management, that there is no argument until some prior behavior or action is made arguable. Any discernable action can be called-out for its commitments toward the states of affairs of the world and obligations toward others. Thus actions that may not conventionally appear as a position can become articulated as such when, for example, complaints are made about the airplane being too crowded, the highway making too much noise, or the deepwater oil rig spilling oil into the ocean. Likewise, when an election outcome is recognized as unrepresentative, an agency report is found to be inaccurate, or court verdict is deemed unjust. In each case, the consequences of some action or material condition in the built-up human environment are called-out and contested for bearing or implying some particular meaning. It is in this way that the social and institutional context for argumentation comes into play as an object of disagreement.

In terms of places, the nature and nuances of argumentative context come into sharper relief. Infrastructure includes the places constructed for managing disagreement. Place goes by many names—situation, meeting, encounter, venue, site, setting, genre, format, devices, media, activity, institution, and so on—that each capture something important about places in the built environment for managing disagreement. Infrastructure suggests understanding places as differing arrangements of location, technology, rules, and expectations that guide conduct for managing differences and that otherwise afford and constrain argumentative possibilities.

Disagreement management brings argumentative context into new light with its attention to the creativity and struggle over practices (i.e., conduct, customs, technologies, and habits) for managing disagreement. Place is part of the practice of disagreement management and its many names indicate its dynamic, evolving, changeable matter as implicated in the management of disagreement. Such novel theorizing about the newly experienced multi-faceted situatedness of argumentation foregrounds the ways in which argumentation is structured by the situational context—but also the ways in which this context can be designed and shaped through and in argumentative moves.

4 Articulating Polylogical Disagreement Management in a Public Controversy over Energy Production

4.1 Controversy over Fracking and Transporting Oil in the USA

To elaborate our reflection on polylogical analysis, our empirical point of entry is a news story published in the *New York Times* on January 25, 2014 entitled

“Accidents surge as oil industry takes the train” (Krauss and Mouawad 2014). Unlike Shell’s advertorial, this is not a dramatic and carefully crafted piece of rhetoric but instead a news story reporting on a turning point event within an expansive practical activity. In our case, this activity is the transportation of shale oil nested within the broader network of activities for the hydraulic fracturing of non-conventional petroleum resources—itsself part of the overarching activity of energy production, delivery, and consumption. By selecting this text, we aim to highlight the significance of going beyond exclusive focus on an exceptional speech or text by incorporating other types of text to take into account the nature of the polylogical expansion of disagreement and argument practice in controversies. The incorporation of such texts scaffolds reflection on the infrastructure of large-scale activities and the infrastructure for argumentation embedded within the practical activity. This is important for polylogical analysis, which seeks to articulate not only the arguments made but the argumentative activity and the function of arguments and argumentation in human activities, and especially the argumentative infrastructure.

Shale gas and oil production is a case in point. It is a massive human undertaking made up of an interconnected web of practical activities coordinated through communication across time and space. Fracking (or: hydraulic fracturing) is a method of extracting natural ‘shale’ gas and oil from deep layers of ‘shale’ rock. It consists of an older technology and a new technology. The older technology involves fracturing rock by injecting high-pressurized liquids (water with added chemicals and sand) and thereby releasing the gas and oil trapped there. The newer technology involves drilling that can maneuver in nearly any direction rather than simple vertical drilling of prior eras. This method has been recently used on a massive scale in the USA, increasing its oil production by 50 % (from 2008 to 2013). This has turned the USA into one of the biggest gas and oil producers in the world and changed the availability of petroleum resources for consumption around the world. Because of this, the fracking business has been hailed as the chief agent of the USA’s energy security, a job creator, and provider of cheap energy to American industry and consumers. Yet concerns remain. There are environmental hazards (documented cases of water pollution, methane emissions, micro-earthquakes, etc.), questions about the actual economic impact on local communities, and shifts in energy policy and investment away from “green”, non-carbon based energy sources. Consequently, there is an ongoing public controversy over fracking’s economic, environmental, social, and political impact that stretches from local communities around extraction sites to USA’s oil-driven global politics.

An important but overlooked activity within the web of shale oil and gas production activities is its transportation. Fracking takes place in new areas otherwise disconnected from traditional oil and gas production pipeline infrastructure. Hence a massive surge in the amount of oil shipped by rail: from 9500 carloads in 2008 to 400,000 in 2013 (4200 % more). Not unexpectedly, rail supplies can hardly keep up with the increasing demand for efficient and safe large-scale transportation. Tragic accidents occur, such as the explosion of a train in Quebec, Canada, in July 2013 which killed 47 people. In 2013 alone, there were more spills than in the entire 1975–2012 period (Krauss and Mouawad 2014). One such major

accident occurred in the town of Casselton, North Dakota, on December 30, 2013 where a train carrying crude oil crashed into a derailed grain train causing a major fire and oil spill. This has been a widely reported accident that further fueled the public debate about the safety of shale oil production and transportation. The text used here (see “Appendix”) reports this breakdown in production activity; as such, it draws attention to the argumentation in managing disagreement as well as the argumentative infrastructure for managing disagreement within the web of production activity and about that activity.

The text of the news story opens up the landscape of the controversy (see Cramer 2011). The presence of disagreement and arguments, however, does not mean the argumentative infrastructure will be readily visible as there are normal, routine ways of handling disagreement that can be glossed over as in the case of the Shell analysis above. With a design stance the attention shifts to articulating the argumentation practice woven into the built human environment that give shape to the content and direction of the disagreement space. The trick is to draw analytic attention to making visible the argumentative infrastructure that is ready to hand for disagreement management and otherwise embedded within broader human activities. It is thus crucial to recognize the insight of infrastructure theorists that infrastructure is taken-for-granted and rather invisible as it is sunk into the background of practice within some activity (Bowker and Star 1999; Star 1999; Star and Ruhleder 1996). The recommended research strategy is “infrastructural inversion” where what is otherwise taken-for-granted in human activity as normal and unnoticed, in terms of the technologies, social arrangements, and vocabularies of activities, are exposed and made temporarily strange and ready for examination (Bowker and Star 1999; see also Ziek 2012). Among other concerns for reconstructing argumentation for analysis, infrastructural inversion is important for understanding the means and instruments of disagreement expansion. In the analysis that follows we use a news story to illustrate the prospects of incorporating other kinds of texts for performing infrastructural inversion to articulate the polylogical nature of controversy and argumentative practice woven into the built environments of large-scale activities.

4.2 Players

The initial framing of the controversy in the *New York Times* news report is noticeably dyadic. The journalist is clearly trying to put in motion some simple adversary dialectic between oil “producers” and their “critics”: “In the race for profits and energy independence, critics say producers took shortcuts to get the oil to market as quickly as possible without weighing the hazards of train shipments” (see “Appendix”). Such two-sidedness has become a landmark of modern journalistic writing as a vehicle for impartiality and comprehensiveness (Cramer 2011).

In its entirety, however, the news story reveals a complex network of distinct players and their multilateral, rather than bilateral, relations: local residents (coffee shop owner, firefighters), North Dakota state authorities (state governor), federal “safety officials” (National Transportation Safety Board, NTSB chair) and “regulators” (Federal Railroad Administration, Pipeline and Hazardous Materials

Safety Administration, Department of Transportation, DoT Secretary), third-parties (former administrator of the PHMSA, rail transport consultant), and industry groups (Association of American Railroads, The Railway Supply Institute, American Petroleum Institute). At a certain level of abstraction, one can of course extract some basic disagreement between the pro-side (producers) and the contra-side (critics). This, however, is not a level interesting to an argument analyst who wants to understand the “logic” behind taking up particular lines of disagreement, design of arguments and criticisms, as well as constraints and affordances a given social or institutional role carries. Since these differ, so do different players’ positions and arguments. In Fig. 1, multilateral relations of the players, mentioned in the news story, are diagrammed relative to their stance on the material action of transporting shale oil by train and the explosion in Casselton.

Take for example the difference between federal “safety officials” and “regulators”. The former are tasked with investigating the causes of accidents and suggesting adequate recommendations. The latter are to develop and implement concrete and binding regulations, something they do in consultation with all the parties involved, including the industry. Regulators might be, then, “critics” of the “producers” but likely in a way different than safety officials are. Regulators manage the disagreements over the disrupted and disputed activity through future-oriented deliberative argumentation fit for public policy- and law-making. Safety officials, by contrast, engage in a form of adjudication, pursuing as the chief line of disagreement with the producers the inquiry into the exact causes of and the apportion of blame over past wrongdoing. Similarly, local residents, who care for the safety and well-being of their communities, cannot be taken to constitute one argumentative party along with the state authorities concerned about having a sustainable, revenue-generating business at home. The former argue that “we should slow the production, and the trains, down”, the latter’s “first priority was improving tank cars” so that, supposedly, they can better serve the burgeoning oil business. Both, then, take up some disagreement with “producers” regarding the way oil is produced and transported, but take it into a markedly different direction.

To conclude, there appears to be no *Public* or *Opponent* in the classic rhetorical or dialectical sense—instead, the controversy involves a variety of stakeholders, as determined by those who call-out and make claims on actions of others and thus shape the disagreement space. The players are connected through their stance regarding the material actions essential to the broader activity of producing shale oil, but their positioning reveals the complexity of standpoints and arguments vis-à-vis the material actions and the interpretation of these actions by other actors that define the disagreement space.

4.3 Positions

The multilateral network of relations among the players makes it hard to reconstruct this controversy in dyadic terms at the level of positions various players advance and defend. Again, the dyadic tendency of argumentation theory would guide us into seeing it as, basically, a two-sided disagreement. The main bone of contention would be the activity of shale oil and gas production. On the one hand, we would get

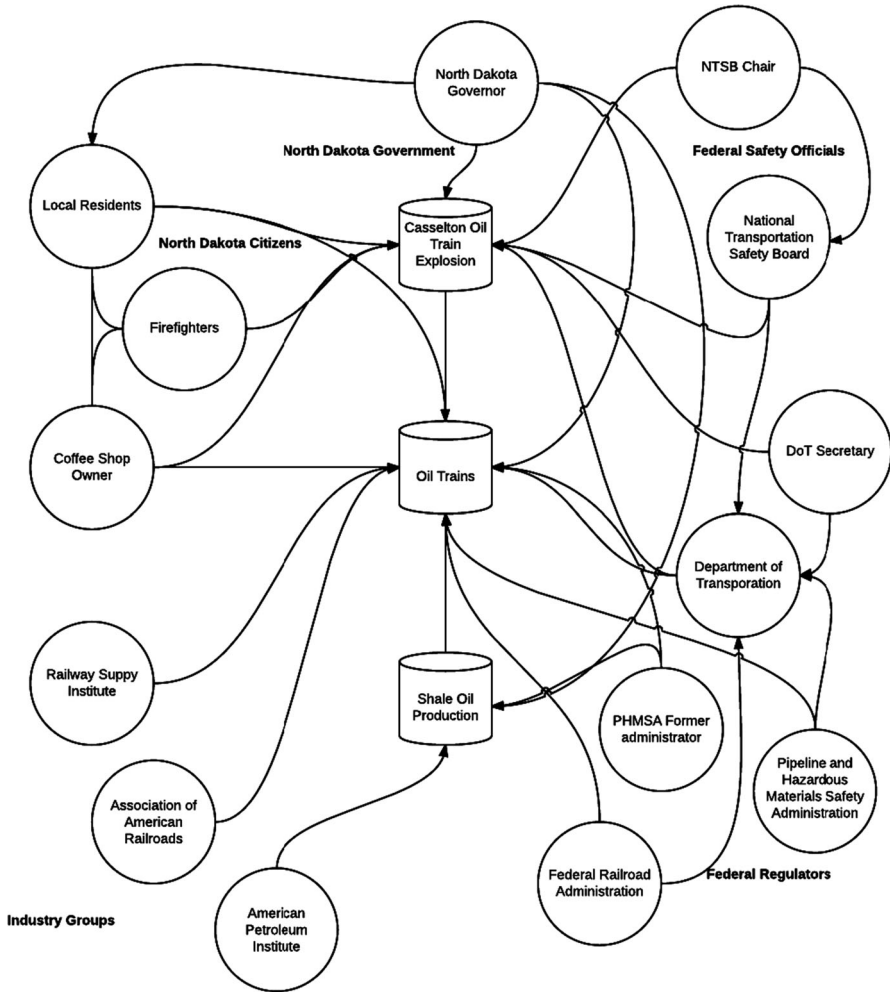


Fig. 1 Players in the exploding train polylogue

those who claim, “Yes, let’s frack as much as we can!”, on the other those who would want to ban fracking altogether (clearly, there are actual players who claim just that—*vide* arguments of some oil industry actors vs. environmentalists). Then, however, we quickly notice a variety of mediating “yes, but” positions: from “YES, let’s frack, but improve slightly the drilling technology so that less spills occur” to “yes, let’s conditionally frack BUT ONLY IF other sources of energy are unavailable.” The disagreement space becomes populated with all kinds of incompatible positions and arguments which do not easily fit the simple pro-con divisions.

The *New York Times* report indeed reveals a complex, polylogical network of disagreements on the issue of transporting oil by train. The Railway Supply Institute, an industry group representing freight car owners, defends their current

practices by maintaining that “existing cars ‘already provide substantial protection in the event of a derailment’.” This position is challenged by another industry group, Association of American Railroads (companies that manage the railroads). According to them, tank cars should be “retrofitted with better safety features or ‘aggressively phased out’.” Their arguments for this position seem purely prudential—without safer transportation, oil business will not grow as expected; in the words of a former administrator of the Pipeline and Hazardous Materials Safety Administration: “Producers need to understand that rail-car safety can become an impediment to production.” Additionally, as other third-party consultants claim, “railroads and car owners can no longer ignore the liabilities associated with oil trains, which could reach \$1 billion in the Quebec accident.” In Fig. 2, some examples of the multiple standpoints expressed by various players are illustrated relative to how the standpoints take issue with other standpoints.

Now, these disagreements *within* the oil transportation business are just a side dish in the broader controversy. The main courses are made of opposition from government, local communities, as well as environmentalists (not referred to in this very report). Federal “safety officials” “have warned for more than two decades that these cars were unsuited to carry flammable cargo”, and their arguments are based in concerns over citizens’ and environmental safety, rather than prosperous business. Finally, local communities have a distinct position of their own: because they need now to restore “shattered calm and confidence”, “[m]ost people [in Casselton] think we should slow the production, and the trains, down.” They thus question not just the technical details of production and transportation, but rather the very rationale for these activities. This puts their position in opposition to all the above-mentioned, including the federal officials who might not be doing enough to protect the common people.

In this way, disagreement is not limited to contradiction and neither is the expansion of disagreement space limited to a dyadic dynamics between two contradictions. Instead, the shape of the disagreement space develops around the weaving of multilateral relations of (virtual) standpoints by a network of actors.

4.4 Places

The news account reveals many places—mostly in the sense of venues—where disagreement about the transportation of shale oil is managed. To gain some traction on what others have called the fragmented and mediated situationality of contemporary culture, we use the term *venue*. By venue we aim to capture the dual sense of where and when actors come together without limiting encounters to a geographical location and to highlight how actors come together, the instrumentation, in a variety of ways (e.g. interpersonal, institutional, mass mediated; orally, textually). Venues project and enable various kinds of participation status actors can take up relative to the matter. The news account of the Casselton explosion provides insight into a labyrinth of venues that connect various actors who claim, or could claim, a stake in the transportation of shale oil and those who might be, in Goffman’s (1981) sense, not fully ratified participants in the controversy but bystanders who may become involved in more-or-less relevant ways around the matter of transporting shale oil. The venues play a role in defining who is a more-or-less ratified or unratified participant and what

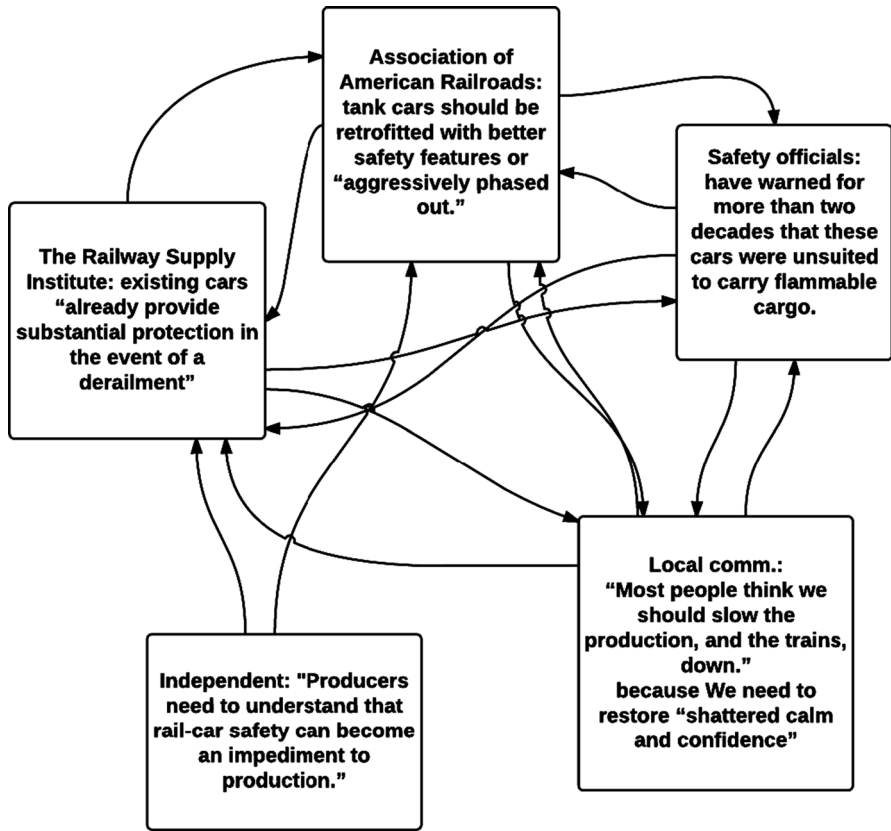


Fig. 2 Positions in the exploding train polylogue

is a more-or-less relevant way to engage the matter in that venue. It is in this way that place is implicated in disagreement management in a manner reminiscent of classical stasis theory (discussed below).

There are five venues that stand out in the account. First, there is reference to informal public encounters, such as Kerry’s Kitchen “where residents gather for gossip and comfort food especially the caramel rolls baked fresh every morning.” Second, there is reference to formal closed ‘disciplinary’ meeting between principal actors in shale oil transportation: “Railroad executives, meeting with the transportation secretary and federal regulators recently, pledged to look for ways to make oil convoys safer—including slowing down the trains or rerouting them from heavily populated areas.” Third, there is reference to a formal private meeting where ‘negotiations’ between the industry representatives and regulators take place: “After the recent meeting with regulators, the American Petroleum Institute pledged it would share its own test data about the oil, which they have said is proprietary.” Fourth, there is reference to private, informal deliberation: “Adrian Kieffer, the assistant fire chief, rushed to the accident and spent nearly 12 h there, finishing at 3 a.m. ‘When I got home that night, my wife said let’s sell our home and move,’ he

said.” And, finally, there is the news story itself which points to a privately structured public media space for communication about the incident. In Fig. 3, a simple representation of the venues illustrates where some of the argumentation about the explosion, oil trains, and shale oil production takes place.

The polylogical vantage point highlights the varying ways disagreement expands through the creative struggle among the parties to pursue and place argumentation, thus revealing the complexities and opportunities of the structural system of changeable situationality. There are concerns by industry and government over where best to handle the issues, whether through formal judicial proceedings or, as in the present case, a private disciplinary meeting among regulators and industry. Each venue is an extension of particular argumentative practices for managing disagreement arising from the breakdown in the shale oil production and transportation activity caused by the explosion. Each venue affords some kinds of argumentative conduct while constraining other kinds.

Disagreement management happens in the design or redesign of the means and instrumentation for argumentation by selecting, altering, or creating venues for argumentation. For instance, place-relevant argument practices come to light in the form of *venue shopping* where parties seek the most favorable place to handle a difference (see Baumgartner and Jones 1991; Pralle 2003). There are concerns by industry over the information available about oil and gas production and, in the present case, there may be a form of *venue entrepreneurship* where some participants seek to strategically alter some rules of engagement, such as when an industry representative worked with government to create a site where industry controls the dissemination of official industry information to stakeholders. Less apparent in this news story are efforts at *venue creation* where parties pursue innovations that create entirely new means to engage in argumentation, such as hosting an online discussion site on a company server (e.g., Aakhus 2013). Thus, venues point to how place becomes part of the disagreement expansion and means for managing disagreement with strategies that shape and discipline where the pursuit and expansion of disagreement happens.

At the risk of oversimplification but to highlight how disagreement expands around matters of place, there are two interrelated kinds of inventiveness, beyond choosing given places, in the struggle over managing disagreement. The first is *innovation*, evident in the case as venue creation. Jackson highlights innovation that “expands the repertoire of concepts [about argumentation] from which people build their own creative responses to situations” (2015, p. 250). Innovations change the way argument happens in particular domains and even at times more generally in society, such as the monumental achievements for argumentation associated with fundamental changes in media that are now deeply embedded in what is understood as argumentation (Jackson 2015). The second is *entrepreneurship*, also evident in the case. Aakhus highlights entrepreneurship as actors devise services that “perform communication design work relative to the demands and opportunities for managing disagreement in the circumstances of some practical activity” (2013, p. 116). These services emerge relative to the “gaps between evidence and claims, what is said and actions performed, and actions performed and activities undertaken” (2013, p. 116). Entrepreneurs work on the edges of the given “rules of the game” and in so doing often contribute to changing the rules of conduct.

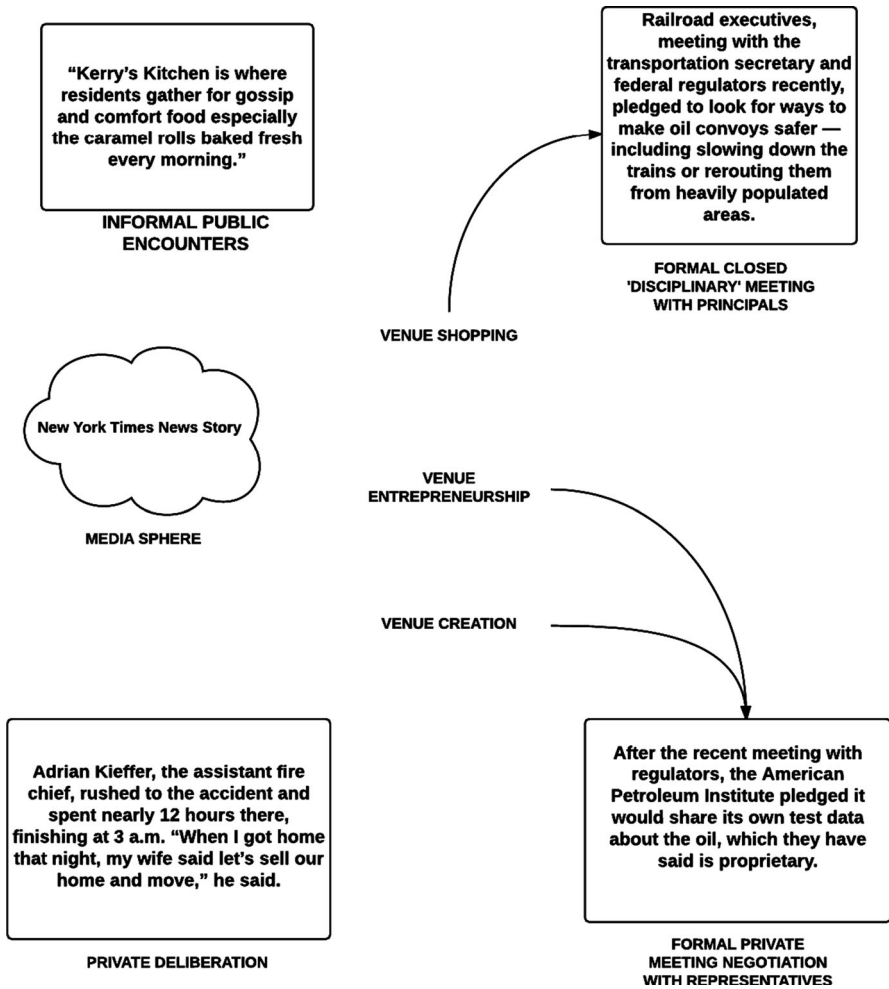


Fig. 3 Places in the exploding train polylogue

One important point about conventional understanding of places was clear in our overview of the analyses of Shell’s advertorial (see Sect. 3). Argumentation analysis has begun to take into account the rules of the settings where argumentation happens by considering the formal argumentative activity types characteristic of various institutions (e.g. adjudication of criminal cases in legal argumentation), but even so such conventional analysis treats these as stable social structures to better understand the arguments and maneuvers of particular actors within the setting. While it is not possible to offer an extensive polylogical analysis of these venues referred to in the news story, it is important to note that the juxtaposition of these venues in the account suggests that there is no one institution, field, sphere, or conversation that defines and contains the disagreement. Instead the way place is implicated in the expansion of disagreement becomes apparent and the struggle over

venues reveals argumentative practice aimed at structuring and disciplining the content and direction of disagreement space.

5 Discussion: Polylogue as Argumentative Design of Players, Positions, and Places

Understanding the logic of an argument or the reasonableness of a particular move by an actor is necessary but wholly insufficient for establishing an argumentative analysis of controversy. What is needed is an argumentative understanding of the “logic” of the controversy, which can be developed through analysis of the polylogical expansion in terms of many players, many positions, and many places in the pursuit of managing disagreement. The polylogical analysis outlined here can be summarized as: Who (players) said What (positions) Where (places)? The simplicity of these questions, however, should not obscure the complexity of adequate answers provided within argumentation theory. Our study of a concrete incident in the broader shale gas controversy in light of our theoretical discussion of polylogical argumentation from the perspective of disagreement management and design stance highlights a number of issues argumentation theory should further consider in its analysis of multi-party and large-scale controversies.

First, polylogues exist as an empirical phenomenon and must be addressed in any “well-founded” argumentation reconstruction “motivated by a pragmatically sound empirical observation concerning the discourse” (van Eemeren et al. 1993, p. 89). As our examination of the analyses of the Shell controversy has shown, it is clear that the fact of polylogue is a concern in more classically oriented dialectical and rhetorical analysis but polylogue is reduced to di-logue in virtue of the di-logical (dyadic) theoretical framework guiding such analysis. This may be justifiable as the analysts are examining one text representing a move by one speaker dealing with a complex setting, such as controversy. However, can the empirical reality of polylogue be brushed aside?

We outlined a strategy to account for the reality of polylogue when examining controversy that may have other applications. Controversies typically take on a particular form of life that is in turn constitutive of the content, direction, and outcomes of the very matters and activity that gave rise to the controversy in the first place (e.g. Schön and Rein 1994). The strategy incorporates the reality of polylogue (i.e., many players, many positions, and many standpoints) in articulating the argumentative practices for shaping disagreement space. The point is to see that disagreement space is an object of design in controversy. Disagreement expansion is subject to argumentative practice found in the formulation of standpoints and arguments, taking up roles relative to the differences, and in locating the pursuit of the disagreement in particular venues. These practices are made visible through infrastructural inversion. The news account facilitates infrastructural inversion, which in this case draws into light the dynamic relationship of venues in the management of disagreement that would otherwise remain tacit, taken for granted, and even hidden from plain sight were, say, one argumentative text by one actor the analytical focus. Shell’s advertorial, from a polylogical vantage point, is significant in that it shifted the

obligations and commitments for Shell and its antagonists—that was in part the point of the strategic maneuver. Yet, we see further how Shell's use of a mass media outlet and construction of an advertorial is a polylogical expansion of the disagreement space. Shell's disagreement management employs place to give itself a favorable venue and in so doing shapes the content and direction of the disagreement space.

Second, place matters for argumentation. As we have previously argued, the contemporary circumstances of many-to-many engagement, typically facilitated by digital media, differs from epideictic (1:many), dialectic (1:1), and forensic (1:1 + judge) (Aakhus and Lewiński 2011; Lewiński and Mohammed 2015). To understand many:many disagreement management, it is necessary to see how place is a matter of argumentative concern. Both in the studies of the Shell controversy and in our analysis of the shale gas controversy it was evident that chief players in these controversies engage in a creative struggle over where to place their defence against accusations, critical doubts, and concerns. The struggles over place, among the parties in a controversy or deliberation, can include a range of matters related to place—location, medium, activity type, institution, etc.—and thus a range of concepts which address different dimensions of the structure of changeable situationality. We have referred to this struggle as a matter of the consequentiality of “argumentative governance,” which is the fact that in the course of making arguments participants also manage how they are having an argument and that regulation affects the quality of the argumentation produced (Aakhus 2013, p. 102; Aakhus and Lewiński 2011, p. 169). Polylogical analysis embraces this fact.

What is significant is that place is not simply a social fact but it is an institutional fact (see Searle 2005) in the particular sense that place takes on a role, and projects, obligations and commitments in argumentative activity. Understanding place is complicated by the mediatization of where people engage in deliberation and controversy and how they engage through affordances of place. As the sense of place shifts from its physical attributes to functions and means of interactivity, it becomes clear how place is designable in new ways with computation and networks and how the algorithms of the place are embedded in conduct (Aakhus 2013). Communicative context, as realized in the built environment for communication, is infrastructural. Here we developed further the notion of infrastructure as an element of argumentation—that is, disagreement expands not only through the addition of positions and people but through places. Such infrastructure, then, is not simply tubes and channels through which words and arguments flow but is part of the action and is implicated in the nature and governance of argumentative activity (Aakhus 2013). If we see place in terms of infrastructure for communication that is designed and can be designed to afford or constrain possibilities, then place finds its way into the discussion about how disagreement expands, since disagreement about the design of place is a matter of concern.

We are highlighting the struggle over the way place can shape disagreement space. While prior argumentation theory sees disagreement expansion as either first order expansion around the logical implications of propositions or second order expansion around the sociological implications of actions, the polylogical analysis offered here recognizes a third order of expansion around the institutional implications of activity for the content and direction of disagreement space. It is

these concerns that motivate the choice of venues and interestingly the venue innovation and entrepreneurialism evident in case of the exploding trains.

While we have not resolved the big question about the rationality of polylogue and how to fully deal with its reality, we have drawn attention to place as a source of disagreement expansion, which opens new lines of inquiry on some classical topics. It is important to notice here a link to the Hermagoras' classical rhetorical theory of stasis (Braet 1987; Hoppmann 2014). For the Ancients, the last among the four recognized lines of defence (*staseis*) against accusation was a procedural objection (Gr. *metalēpsis*; Lat. *translatio*), which includes “questions of the correct time and place for the trial” in the prototypical case of a criminal trial (Hoppmann 2014, p. 284). As noted by Kennedy, “[a]ctually the fourth stasis can be a very strong one, but in putting it last Hermagoras seems to have regarded it as a last resort and a kind of petty legalism” (1963, p. 308). “Petty” argumentative moves—such as when an accused murderer can hardly do more to defend herself than to bicker about the judge’s competence—should however be distinguished from crucial arguments over where and how to best adjudicate the case. This form of argumentation has clearly grown in importance, so that what the Ancients considered to be the last, fourth stasis, “is nowadays in principle so powerful” (Braet 1987, p. 83).

Third, the polylogical reality is consequential for understanding the rationality of argumentation in interaction (see Lewiński 2015). To consider the rationality of polylogue, invites entanglement with complexities that need further attention to determine whether (1) they can be brushed aside in favor of a dialectical or rhetorical analysis, (2) whether dyadic assumptions can be amended to better account for rationality in polylogue, or (3) whether there is a need for revision of the assumptions and working out of the implications for a theory of polylogical rationality. While we clearly disfavor option (1) for the reasons adduced in the paper, we remain somewhat agnostic about options (2) and (3), as both of them may prove fruitful. On the one hand, established theories may extend their notions of rationality to consistently account for polylogical complexities which currently seem to be “anomalies” against the clear surface of dyadic rationality. On the other hand, new theories and concepts—for instance those grounded in the broad notions of disagreement management and argumentation design—may be developed to embrace polylogical rationality as a something “normal” from the very beginning. Either way, concerted effort toward conceptualizing polylogue should continue, as this is no small matter and quite important to understanding contemporary discourse and conditions of modern decisions. Clearly polylogical examples which we have found particularly significant to society include climate change and energy production issues, corporate social responsibility issues, and decisions about complex medical procedures.

6 Conclusion

In this paper, we highlight how to make sense of disagreement expansion from a polylogical perspective by incorporating various *players* (parties), *positions* (standpoints), and *places* (venues) into the analysis. By articulating players, disagreement expansion can be seen as co-constructed through the calling-out

actions of multiple players and the anticipation of being called-out. Disagreement is not limited to contending with one other party and thus argumentative strategy is not limited to message design but is opened to communication design as it is found in the variety of instruments for communication which parties develop to manage their role in a complex web of relationships. By articulating positions, disagreement expansion can be seen as something generated by players attempting to manage an interconnected web of commitments relative to their multilateral relations to others. Disagreement is not limited to contradiction. By articulating venues, disagreement expansion can be seen as something that happens through a network of communicative activities that develops in the course of managing broader human activities. The content, strategies, and parties to argumentation are not necessarily limited to the demands of one kind of communicative activity but are often relevant to and implicated in other communicative activities in the network. Disagreement is not limited to one given, fixed place but finds its way into a variety of places and often motivates the reconfiguring or invention of places for argumentation—that is, infrastructural innovation and entrepreneurship. Thus, by articulating the polylogical expansion of disagreement space, argumentation analysis can engage the logic of controversies rather than taking context to be given or treating it as static for other analytic aims.

Acknowledgments An earlier version of this paper was presented during the 8th Conference of the International Society for the Study of Argumentation (ISSA) held at the University of Amsterdam, 1–4 July 2014. Marcin Lewiński acknowledges support of two Grants of the Portuguese Foundation for Science and Technology (FCT): SFRH/BPD/74541/2010 and PTDC/MHC-FIL/0521/2014.

Appendix: Accidents Surge as Oil Industry Takes the Train

By Clifford Krauss and Jad Mouawad, Jan. 25, 2014.

Casselton, N.D.—Kerry's Kitchen is where Casselton residents gather for gossip and comfort food, especially the caramel rolls baked fresh every morning. But a fiery rail accident last month only a half mile down the tracks, which prompted residents to evacuate the town, has shattered this calm, along with people's confidence in the crude-oil convoys that rumble past Kerry's seven times a day.

What was first seen as a stopgap measure in the absence of pipelines has become a fixture in the nation's energy landscape—about 200 “virtual pipelines” that snake in endless processions across the horizon daily. It can take more than 5 min for a single oil train, made up of about 100 tank cars, to pass by Kerry's, giving this bedroom community 20 miles west of Fargo a front-row seat to the growing practice of using trains to carry oil.

“I feel a little on edge—actually very edgy—every time one of those trains passes,” said Kerry Radermacher, who owns the coffee shop. “Most people think we should slow the production, and the trains, down.”

Casselton is near the center of the great oil and gas boom unleashed these last few years. And it has seen up close how trains have increasingly been used to transport the oil from the new fields of Colorado, Wyoming and North Dakota, in part as a result of delays in the approval of the Keystone XL pipeline. About 400,000

carloads of crude oil traveled by rail last year to the nation's refineries, up from 9500 in 2008, according to the Association of American Railroads.

But a series of recent accidents—including one in Quebec last July that killed 47 people and another in Alabama last November—have prompted many to question these shipments and have increased the pressure on regulators to take an urgent look at the safety of the oil shipments.

In the race for profits and energy independence, critics say producers took shortcuts to get the oil to market as quickly as possible without weighing the hazards of train shipments. Today about two-thirds of the production in North Dakota's Bakken shale oil field rides on rails because of a shortage of pipelines. And more than 10 % of the nation's total oil production is shipped by rail. Since March there have been no fewer than 10 large crude spills in the United States and Canada because of rail accidents. The number of gallons spilled in the United States last year, federal records show, far outpaced the total amount spilled by railroads from 1975 to 2012.

Railroad executives, meeting with the transportation secretary and federal regulators recently, pledged to look for ways to make oil convoys safer—including slowing down the trains or rerouting them from heavily populated areas. (Trains go up to roughly 35 miles an hour through towns and at higher speeds outside populated areas.) They also agreed to speed up a review of tougher standards for the train cars used for oil. And last Thursday, safety officials urged regulators to quickly improve industry standards.

"This is an industry that has developed overnight, and they have been playing catch-up with the infrastructure," said Deborah A. P. Hersman, the chairwoman of the National Transportation Safety Board, which is investigating the Casselton accident. "A lot of what we've seen could have been a lot worse."

But given the fragmented nature of the business—different companies produce the oil, own the rail cars, and run the railroads—there is no firm consensus on what to do. And few analysts expect new regulations this year.

"There was no political pressure to address this issue in the past, but there clearly is now," said Brigham A. McCown, a former administrator of the Pipeline and Hazardous Materials Safety Administration. "Producers need to understand that rail-car safety can become an impediment to production."

The stakes are high. In 5 years, domestic oil production has jumped by 50 %, to reach 7.5 million barrels a day last year.

But with little pipeline infrastructure, energy producers had to scramble for new ways to get their oil to refiners. Rail was the answer.

"The reality is that this came out of nowhere," said Anthony B. Hatch, a rail transport consultant. "Rail has gone from near-obsolescence to being critical to oil supplies. It's as if the buggy-whips were back in style."

Far more toxic products are shipped on trains. But those products, like chlorine, are transported in pressurized vessels designed to survive an accident. Crude oil, on the other hand, is shipped in a type of tank car that entered service in 1964 and that has been traditionally used for nonflammable hazardous liquids like liquid fertilizers.

Safety officials have warned for more than two decades that these cars were unsuited to carry flammable cargo: their shell can puncture and tears up too easily in a crash.

In 2009, a train carrying ethanol derailed and exploded, killing one person in Cherry Valley, Ill. The National Transportation Safety Board said the inadequate design of the tank cars made them “subject to damage and catastrophic loss of hazardous materials.”

After that accident, railroads and car owners agreed in 2011 to beef up new cars with better protections and thicker steel. But they resisted improving safety features on the existing fleet because of cost. They also argued that thousands of new cars were being ordered anyway, so it would be just a matter of time before the fleet was replaced.

But analysts said that time has run out; railroads and car owners can no longer ignore the liabilities associated with oil trains, which could reach \$1 billion in the Quebec accident.

“Quebec shocked the industry,” Mr. Hatch said, adding that while rail safety has improved over all, “the consequences of any accident are rising.”

Last November, the Association of American Railroads said it would support requiring that the 92,000 tank cars used to transport flammable liquids, including crude oil, be retrofitted with better safety features or “aggressively phased out.”

Still, other groups have resisted. The Railway Supply Institute, which represents freight car owners, told regulators 3 weeks before the Casselton accident that existing cars “already provide substantial protection in the event of a derailment” and suggested minor modifications to be phased in over 10 years.

While the safety record of railroads has improved in recent years, the surge in oil transportation has meant a spike in spill rates. From 1975 to 2012, federal records show, railroads spilled 800,000 gallons of crude oil. Last year alone, they spilled more than 1.15 million gallons, according to an analysis of data from the Pipeline and Hazardous Materials Safety Administration done by McClatchy Newspapers. That figure includes the Casselton spill, estimated at about 400,000 gallons.

The accidents have also created a sense of weariness among elected officials and even staunch oil backers.

North Dakota Gov. Jack Dalrymple, a Republican, insisted that the first priority was improving tank cars. “These exploding tank cars are obviously very powerful and very dangerous,” he said.

The accidents have brought another problem to light. Crude oil produced in the Bakken appears to be a lot more volatile than other grades of oil, something that could explain why the oil trains have had huge explosions.

Here too, the warnings came too late.

Federal regulators started analyzing samples from a few Bakken wells last year to test their flammability. In an alert issued on Jan. 2, P.H.M.S.A. said the crude posed a “significant fire risk” in an accident.

The Federal Railroad Administration also pointed to rising numbers of oil cars that showed a “form of severe corrosion” on the inside of the tanks, covers and valves.

After the recent meeting with regulators, the American Petroleum Institute pledged it would share its own test data about the oil, which they have said is proprietary.

While the tank cars themselves have not caused any accident, they failed to contain their cargo. That happened on the outskirts of Casselton when a 106-car oil train crashed into a soybean train that derailed on a parallel track.

In a preliminary report, the N.T.S.B. said 18 of the 20 oil tank cars that derailed were punctured. Much of the oil spilled was incinerated by the explosions, and some soaked into nearby corn fields.

Aside from evacuating nearby farms, there was little the fire department could do but watch the train burn.

Tim McLean, Casselton's fire chief, pictured what the town would look like if an oil train derailed. The large propane supply tank would explode "like a bomb" and incinerate two multifamily houses next to it. Five blocks to the west are a lumber yard and two gasoline stations. Oil might accumulate in storm sewers and possibly spread a fire underground.

"There's virtually no way we could protect these buildings," he said as he passed the barber shops, drugstore and pizza parlor, all occupying sturdy brick buildings more than a century old. "It would be too hot."

The terror of what might have happened hit many here immediately.

Adrian Kieffer, the assistant fire chief, rushed to the accident and spent nearly 12 h there, finishing at 3 a.m. "When I got home that night, my wife said let's sell our home and move," he said.

References

- Aakhus, M. 2003. Neither naive nor critical reconstruction: Dispute mediators, impasse, and the design of argumentation. *Argumentation* 17(3): 265–290.
- Aakhus, M. 2013. Deliberation digitized: Designing disagreement space through communication-information services. *Journal of Argumentation in Context* 2(1): 101–126.
- Aakhus, M., and M. Lewiński. 2011. Argument analysis in large-scale deliberation. In *Keeping in touch with pragma-dialectics: In honor of Frans H. van Eemeren*, ed. E. Feteris, B. Garssen, and A.F.S. Henkemans, 165–183. Amsterdam: John Benjamins.
- Aakhus, M., and M. Lewinski. 2015. Toward polylogical analysis of argumentation: Disagreement space in the public controversy about fracking. In *Proceedings of the 8th conference of the international society for the study of argumentation*, ed. B. Garssen, D. Godden, G. Mitchell, and F. Snoeck Henkemans, 1–11. Amsterdam: Sic Sat.
- Aakhus, M., and A. Vasilyeva. 2008. Managing disagreement space in multiparty deliberation. In *Controversy and confrontation: Relating controversy analysis with argumentation theory*, ed. F.H. van Eemeren, and B. Garssen, 197–214. Amsterdam: John Benjamins.
- Aakhus, M., S. Muresan, and N. Wacholder. 2013. Integrating natural language processing and argumentation theories for argumentation support. In *OSSA 10: Virtues of argumentation*, ed. D. Mohammed, and M. Lewiński, 1–13. Windsor, ON: Ontario Society for the Study of Argumentation.
- Baumgartner, F., and B. Jones. 1991. Agenda dynamics and policy subsystems. *The Journal of Politics* 53(4): 1044–1074.
- Bitzer, L.F. 1968. The rhetorical situation. *Philosophy and Rhetoric* 1(1): 1–14.
- Bou-Franch, P., and P. Garcés-Conejos Blitvich. 2014. Conflict management in massive polylogues: A case study from YouTube. *Journal of Pragmatics* 73: 19–36.
- Bowker, G.C., and S.L. Star. 1999. *Sorting things out: Classification and its consequences*. Cambridge, MA: MIT Press.
- Braet, A. 1987. The classical doctrine of "status" and the rhetorical theory of argumentation. *Philosophy and Rhetoric* 20(2): 79–93.

- Bruxelles, S., and C. Kerbrat-Orecchioni. 2004. Coalitions in polylogues. *Journal of Pragmatics* 36(1): 75–113.
- Clark, H.H., and T.B. Carlson. 1982. Hearers and speech acts. *Language* 58(2): 332–373.
- Cramer, P.A. 2011. *Controversy as news discourse*. Dordrecht: Springer.
- Goffman, E. 1981. *Forms of talk*. Oxford: Wiley.
- Hoppmann, M.J. 2014. A modern theory of stasis. *Philosophy and Rhetoric* 47(3): 273–296.
- Hutchby, I. 1996. *Confrontation talk: Argument, asymmetries, power*. New York: Routledge.
- Jackson, S. 1992. “Virtual standpoints” and the pragmatics of conversational argument. In *Argumentation illuminated*, ed. F.H. van Eemeren, R. Grootendorst, J.A. Blair, and C.A. Willard, 260–269. Amsterdam: SicSat.
- Jackson, S. 2012. Black box arguments and accountability of experts to the public. In *Between citizens and scientists: Proceedings of a conference at Iowa State University*, ed. J. Goodwin, 1–18. Ames, IA: Great Plains Society for the Study of Argumentation.
- Jackson, S. 2015. Design thinking in argumentation theory and practice. *Argumentation* 29(3): 243–263. doi:10.1007/s10503-015-9353-7.
- Jackson, S., and S. Jacobs. 1980. Structure of conversational argument: Pragmatic bases for the enthymeme. *Quarterly Journal of Speech* 66(3): 251–265.
- Jackson, S., and S. Jacobs. 1981. The collaborative production of proposals in conversational argument and persuasion: A study of disagreement regulation. *Journal of the American Forensic Association* 2: 77–90.
- Jacobs, S. 1989. Speech acts and arguments. *Argumentation* 3(4): 345–365.
- Jacobs, S., and M. Aakhus. 2002. What mediators do with words: Implementing three models of rational discussion in dispute mediation. *Conflict Resolution Quarterly* 20(2): 177–203.
- Jacobs, S., and S. Jackson. 2006. Derailments of argumentation: It takes two to tango. In *Considering pragma-dialectics*, ed. P. Houtlosser, and M.A. van Rees, 121–133. Mahwah: Lawrence Erlbaum Associates.
- Johnson, R.H. 2002. Interpreting Shell’s ‘Clear Thinking in Troubled Times’. *Informal Logic (Teaching Supplement)* 21(3): TS39–TS47.
- Kennedy, G. 1963. *The art of persuasion in Greece*. Princeton, NJ: Princeton University Press.
- Kerbrat-Orecchioni, C. 1997. A multilevel approach in the study of talk-in-interaction. *Pragmatics* 7(1): 1–20.
- Kerbrat-Orecchioni, C. 2004. Introducing polylogue. *Journal of Pragmatics* 36(1): 1–24.
- Kjeldsen, J.E. 2006. Mediated parables and rhetorical fragmentation. In *Researching media, democracy, and participation*, ed. N. Carpentier, P. Pruulmann-Vengerfeldt, K. Nordenstreng, M. Hartmann, P. Vihalemm, and B. Cammaerts, 115–129. Tartu: Tartu University Press.
- Kjeldsen, J.E. 2013. A rhetorical approach to Prime Minister Tony Blair’s speech to the EU parliament. In *Speaking of Europe: Approaches to complexity in European political discourse*, ed. K. Fløttum, 19–42. Amsterdam: John Benjamins.
- Krauss, C., & Mouawad, J. (2014). Accidents surge as oil industry takes the train. *New York Times*. http://www.nytimes.com/2014/01/26/business/energy-environment/accidents-surge-as-oil-industry-takes-the-train.html?_r=0.
- Leff, M. 2006. Rhetoric, dialectic, and the functions of argument. In *Considering pragma-dialectics*, ed. P. Houtlosser, and M.A. van Rees, 199–210. Mahwah: Lawrence Erlbaum Associates.
- Levinson, S.C. 1988. Putting linguistics on a proper footing: Explorations in Goffman’s concepts of participation. In *Erving Goffman: Exploring the interaction order*, ed. P. Drew, and A. Wootton, 161–227. Cambridge, MA: Polity Press.
- Lewiński, M. 2010. Collective argumentative criticism in informal online discussion forums. *Argumentation and Advocacy* 47(2): 86–105.
- Lewiński, M. 2013. Debating multiple positions in multi-party online deliberation: Sides, positions, and cases. *Journal of Argumentation in Context* 2(1): 151–177.
- Lewiński, M. 2014. Practical reasoning in argumentative polylogues. *Revista Iberoamericana de Argumentación* 8: 1–20.
- Lewiński, M. 2015. Argumentative discussion: The rationality of what? *TOPOI: An International Review of Philosophy*. doi:10.1007/s11245-015-9361-0.
- Lewiński, M., and M. Aakhus. 2014. Argumentative polylogues in a dialectical framework: A methodological inquiry. *Argumentation* 28(2): 161–185.

- Lewiński, M., and D. Mohammed. 2015. Tweeting the Arab Spring: Argumentative polylogues in digital media. In *Disturbing argument: Selected works from the 18th NCA/AFA alta conference on argumentation*, ed. C. Palczewski, 291–297. New York: Routledge.
- Marcoccia, M. 2004. On-line polylogues: Conversation structure and participation framework in internet newsgroups. *Journal of Pragmatics* 36(1): 115–145.
- Maynard, D.W. 1986. Offering and soliciting collaboration in multi-party disputes among children (and other humans). *Human Studies* 9: 261–285.
- Perelman, Ch., & Olbrechts-Tyteca, L. (1969). *The new rhetoric: A treatise on argumentation* (J. Wilkinson & P. Weaver, Trans.). Notre Dame: University of Notre Dame Press (**original work published 1958**).
- Pralle, S.B. 2003. Venue shopping, political strategy, and policy change: The internationalization of Canadian Forest Advocacy. *Journal of Public Policy* 23(3): 233–260. doi:[10.1017/S0143814X03003118](https://doi.org/10.1017/S0143814X03003118).
- Schön, D.A., and M. Rein. 1994. *Frame reflection: Toward the resolution of intractable policy controversies*. New York: Basic Books.
- Searle, J.R. 2001. *Rationality in action*. Cambridge, MA: MIT Press.
- Searle, J.R. 2005. What is an institution? *Journal of Institutional Economics* 1(1): 1–22.
- Star, S.L. 1999. The Ethnography of Infrastructure. *American Behavioral Scientist* 43(3): 377–391. doi:[10.1177/00027649921955326](https://doi.org/10.1177/00027649921955326).
- Star, S.L., and K. Ruhleder. 1996. Steps toward an ecology of infrastructure: Design and access for large information spaces. *Information Systems Research* 7(1): 111–134.
- Tindale, C.W. 1999. *Acts of arguing: A rhetorical model of argument*. Albany: State University of New York Press.
- Toulmin, S.E. 1958. *The uses of argument*. Cambridge: Cambridge University Press.
- Traverso, V. 2004. Interlocutive ‘crowding’ and ‘splitting’ in polylogues: The case of a researchers’ meeting. *Journal of Pragmatics* 36(1): 53–74.
- van Eemeren, F.H. 2010. *Strategic maneuvering in argumentative discourse: Extending the pragma-dialectical theory of argumentation*. Amsterdam: John Benjamins.
- van Eemeren, F.H., R. Grootendorst, S. Jackson, and S. Jacobs. 1993. *Reconstructing argumentative discourse*. Tuscaloosa: University of Alabama Press.
- van Eemeren, F.H., and P. Houtlosser. 1999. Strategic manoeuvring in argumentative discourse. *Discourse Studies* 1(4): 479–497.
- van Eemeren, F.H., and P. Houtlosser. 2002. Strategic manoeuvring: Maintaining a delicate balance. In *Dialectic and rhetoric: The warp and woof of argumentation analysis*, ed. F.H. van Eemeren, and P. Houtlosser, 131–159. Dordrecht: Kluwer.
- Ziek, P.E. 2012. *Inter-organizational infrastructure for communication: A study of the generative aspects of the communication context on CSR strategy and instrumentation*. Rutgers: The State University of New Jersey. doi:[10.7282/T3FX78CB](https://doi.org/10.7282/T3FX78CB).