ISSA Proceedings 1998 – Is It A Monologue, A Dialogue Or A Turn In A Dialogue?

1. Introduction

This paper is motivated by two concerns, one theoretical and the other rather more practical. The former regards the status of monologue, and in particular, persuasive monologue. Argument analysis frequently focuses upon dialogue – either by designing systems of exchange and incurred commitment, (e.g. (Hamblin, 1970), (Walton and Krabbe, 1995)) or by viewing apparently monologic argument as an "implicit dialogue" between writer and imaginary foe (Eemeren and Grootendorst, 1992). Yet despite the great abundance of persuasive monologue (examples are offered by advertisements, editorials, political addresses, theses and academic papers, amongst others) there seems to be little recognition of the status of monologue as a distinct medium for argument. If such a status is granted to monologue, then the hazy distinction between monologue and dialogue requires careful investigation.

The second concern forms a component of recent work which has focused upon the design of a computational system for generating text (Reed, 1998), (Reed and Long, 1997). This system aims to generate the structure of coherent, persuasive argument – monologic argument. Determining a reasonably rigorous definition of persuasive monologue is thus a prerequisite of establishing the functional remit of this system.

The discussion is based upon ideas presented in (Reed, 1997), and those offered in reply by Vorobej (1997), and is divided into four sections: the first three characterise persuasive monologue on the basis of its aims, physical situation and internal structure; the fourth then points out some common misconceptions of what comprises monologue, which are then rejected on the basis of the three preceding sections.

2. Aims of Persuasive Monologue

The aims of persuasive monologue (and indeed persuasive dialogue as well) fall into three groups. Firstly, to alter the beliefs of either the hearer (e.g. a letter from one academic to another discussing some matter upon which they disagree),

a particular audience (e.g. an academic paper presented at a small, focused workshop), or a general audience (e.g. an article in *Scientific American*). As discussed in (Perelman and Ohlbrechts-Tyteca, 1969), the difference between the constructs *particular* audience and *general* audience is used in defining the distinction between persuasive and convincing argument. The further distinction between particular audience and single hearer (which in the work of Perelman and are conflated) is important for determining an appropriate level of confidence in the model of the hearer (broadly, that a model of a single hearer is likely to be more reliable than a less specific model which abstracts the beliefs of an entire audience). It is often not transparently obvious who the intended audience is in any given situation – in the debating chamber, for example, the speaker has one or more opponents to whom she is supposed to be addressing herself – the primary aim of her discourse, however, is to change the beliefs of the nonparticipatory audience. This form of 'misdirection' is very common in monologue, especially in those examples where a particular position is being attacked. Other permutations are rarer, but one could imagine a scenario in which a monologue was addressed to a general audience and yet the speaker hope only to influence the beliefs of some particular subset of that audience. It should also be noted that Perelman's terminology is a little misleading, for under the heading of 'altering belief' is included more than just persuading and convincing, viz. shedding doubt, confusing, confounding and dissuading. Often, a speaker's 'best hope' may be to persuade, but would settle for simply reducing the audience's certainty in their belief.

Changing the beliefs of an audience is not the only – or even the most common – aim of persuasive discourse. For although most such discourse is constructed in such a way that it *appears* that the speaker's aim is to influence belief, in point of fact, orators frequently "aim principally to alter behaviour, generate enthusiasm, or create feelings of various sorts (guilt, pleasure, solidarity), rather than alter beliefs." (Vorobej, 1997, p2)

The second type of monologue aim, then, involves changing hearer behaviour. As with discourse aimed at altering belief, that concentrating on changing behaviour can be aimed at an individual, a particular audience or a general audience, and has similar scope for 'misdirection'. Indeed the similarities between epistemic and behavioural change are very great, since commitment to action can be defined as propositional belief (Walton and Krabbe, 1995) (though as Walton and Krabbe point out, p15, such a relationship may break down if commitment is incurred by

an unstructured, heterogeneous audience). It is useful to class these behavioural aims distinctly, because the arguments which service them often involve characteristic reasoning patterns and stylistic constructions.

The third and final group of aims of persuasion are emotive in nature, engendering particular feelings in the audience (- notice that Vorobej's 'generating enthusiasm' can be classed either under this head if it is undirected, or as a behavioural aim if it is directed towards a particular action). This sort of manipulation is unlikely to meet with acquiescence from the audience were it blatant, hence the common technique of building a façade that a monologue's aim is to alter belief. There is a wide variety of emotive aims which can be fulfilled through persuasive monologue, which, in addition to Vorobej's list, include impressing the audience, inducing fear or shock, and causing amusement through humour or wit, (and of course, these are far from mutually exclusive). Despite this wide range of characteristic aims – both epistemic, behavioural and emotive – together they distinguish between persuasive discourse and the other argument forms listed in (Walton and Krabbe, 1995), (but note that the use of persuasion monologue to alter behaviour clouds the distinction slightly between persuasion and deliberation – this situation can be remedied in part by consideration of the action-oriented nature of deliberation and its typical use of means-ends reasoning). The aims alone, however, fail to distinguish between persuasive monologue and persuasive dialogue. This distinction rests in part on the physical situation in which the argument is conducted.

3. The Context of Persuasive Monologue

As discussed in more detail in (Reed, 1997), O'Keefe's (1977) proposal that the term *argument* should be divided into the argument1 – "something one person makes (or gives or presents or utters)" – and argument2 – "something two or more persons have (or engage in)" is enlightening in that it highlights the distinction between seeing an argument as a process on the one hand and as a product on the other. From an NLG perspective, this is a particularly important distinction to recognise since although monologue is generally viewed (e.g. implicitly by O'Keefe) from the argument-as-product stance, the creation of a monologue from a set of beliefs and goals is necessarily a process. And, crucially, the process of creating a persuasive monologue is assumed to be complete before it is uttered to an audience. Vorobej voices concerns that although a persuasive monologue may not admit linguistic response from the hearer, there may nevertheless be nonverbal indication of a monologue's reception. He thus

distinguishes *veiled persuasive monologue – "where there is no possibility of any physical, verbal, or symbolic contact between the audience and the speaker" – from face-to-face persuasive monologue* – "where the audience is verbally silenced, but may symbolically interact with the speaker in other ways." (Vorobej, 1997, p3). In a computational setting, such 'face-to-face' persuasive monologue is difficult to envisage, since the channels for non-linguistic communication would have to be expressly designed and built, but it is important nevertheless to emphasise that the computational model in (Reed, 1998) assumes that no modification to the monologue plan occurs after realisation of that plan has commenced. To permit such run-time modification would be to re-introduce almost all of the problems of a full dialogue system – indeed it could well be argued that the scenario represents an – albeit impoverished – dialogue. (Furthermore, eschewing the generation of face-to-face monologue also side-steps Vorobej's criticisms concerning the claim in (Reed, 1997) that the potential for true retraction – a defining feature of persuasive dialogue – is absent in persuasive monologue).
The physical situation and involvement of the hearer also forms one facet of the distinction proposed by Blair (Blair, 1997) between *fully-engaged* dialogue and *non-engaged* dialogue. In examples of the former, "what is supplied by each participant at each turn is a direct response to what was stated or asked in the previous turn", p5.

In contrast, the interlocutors in a non-engaged dialogue "take up the same topic, defending (apparently) incompatible positions on it, but they do not interact directly with one another … Even where they interact, each side chooses which of the views of the other side it wants to attempt to refute and which of its own claims it wants to support, and is not forced by questions or challenges from the other side to address the issues that other side deems important.", p8. Clearly, Blair too conflates into his second category the limited interaction available in Vorobej's face-to-face monologue with the absolute absence of interaction in veiled monologue. However, the key distinction between fully-engaged and non-engaged dialogues, Blair maintains, is not the physical situation, but the permitted complexity of each turn in the dialogue. He identifies thirteen levels of complexity: at the level of greatest simplicity are question and answer dialogues in which the questions are designed to elicit yes/no answers, and the respondent may only answer yes or no. At the next level of complexity, questions may elicit single propositions. The third level allows an admixture of these two (and is

characteristic of Plato's *Dialogues*). The next level, Blair proposes, is in a separate class, whereby the proponent can offer simple arguments, and the opponent can question the propositions or inferences employed in those arguments. At the next level of complexity, more than one simple argument is permitted. At level six, the opponent is allowed to offer arguments for his doubts. At level seven, the roles of proponent and opponent are allowed to fluctuate dynamically. Level eight again represents a new class, in which arguments can be chained (with supports for support). At the next level, the length of these chains is unrestricted. At level ten, more than one line of argument can be put forward at each turn, and at the next level, multiple lines of argument each of arbitrary length are permitted. Level twelve again enters a new class, where refutations of opposing arguments may be offered. Level thirteen, the most complex, represents the combination of twelve and eleven.

It seems, however, that such an approach is characterised on the basis of the result of the process rather than on the *process itself*. Blair's 'level-thirteen complexity' is characteristic of non-engaged dialogue precisely because it comprises the most appropriate forms of reasoning for the process of such dialogue to employ.

4. The Structure of Persuasive Monologue

Persuasive monologue is composed of two forms of reasoning. Firstly, the intuitive 'case-building' of presenting arguments in support of the thesis. Premises are supported by subarguments, which themselves are further supported, and so on until basic premises are reached which fulfil one of three conditions:

(i) the speaker believes them and has no further information available with which to support them;

(ii) the speaker believes the hearer believes them (irrespective of whether the speaker herself believes them);

(iii) the speaker believes the hearer will accept them without further argumentation (even though, as far as the speaker's model of the hearer goes, he doesn't currently believe them).

Without opportunity for the speaker to defer supporting argumentation until prompted by her audience, this case-building is clearly essential. Furthermore, the speaker will often employ multiple chains of support – not because she believes that one particular line of support is insufficiently strong, nor even

because she assumes that the hearer will find one line of support weak. Rather, she is 'hedging her bets' – given the fact that the hearer model is assumed to be imperfect, it may turn out that a premise assumed to be acceptable to the hearer is in fact rejected, and in such a situation, auxiliary arguments may become vital.
Secondly, there is the more complex technique of presenting counterarguments to the thesis propounded, and then offering arguments which defeat those counterarguments. One example of accomplished use of the technique is Turing's (1950) *Computing Machinery and Intelligence* in which he proposes that human intelligence is theoretically and fundamentally reproducible in a computer, and goes on to counter nine common objections from various philosophical, theological and intuitionistic viewpoints. Each counterargument is aimed at a different hearer, the theological to the theologian, etc., and is constructed precisely for that hearer. Thus the theological objection is countered from theological premises, which Turing indicates he considers dubious at best (– to paraphrase, the objection is that humans are the only beings upon which God confers a soul, and the counter, that this impinges upon His omnipotence, inasmuch as He should be able to confer a soul upon anything).

Turing also explicitly identifies the two components of monologue which appear in his paper (the counter-counterarguments and the case-building):
"The reader will have anticipated that I have no very convincing arguments of a positive nature to support my views. If I had I should not have taken such pains to point out the fallacies in contrary views. Such evidence as I have I shall now give …" (p454)
Turing thus claims that the counter-counterarguments he has presented would not be required if he could offer unassailable arguments for his thesis, and indeed this seems to be generally the case: counter-counterarguments play an ancillary role to the more central case-building argumentation (Reed and Long, 1997). Again, however, counter-counterargument represents an appropriate strategy for the process of creating non-engaged dialogue: without the opportunity to deal with counterarguments if and when an opponent tables them, a speaker runs the risk of losing the hearer. If the hearer believes he has a valid counterargument for some claim in the speaker's monologue, he may conclude that – regardless of the content of the remainder of the monologue – the speaker's argument is flawed (and therefore not worthy of any further attention). By anticipating and countering as many counterarguments as possible, a speaker improves the likelihood that a hearer will remain unbiased to the end. This claim is supported

by noting that in the Turing example, which argued on a very emotive and contentious issue, his own arguments came *after* his long list of the various counter-counterarguments.

Thus rather than defining monologue from a product-oriented stance (as Blair does), a more incisive approach is to offer a definition from a process-oriented stance. Using multiple lines of reasoning, for example, is not simply the defining feature of 'level-five complexity' -rather, it is a technique employed in response to situations in which the speaker is aware of her imperfection in modelling the hearer and wants therefore to maximise the likelihood of her thesis being accepted through utilisation of a whole battery of support. Considering only the product of argument leaves any definition susceptible to weakness since no such product can be a true record of the argument -the context will have been lost, and with it, the information necessary to perform classification. The importance of context (a process attribute) can be demonstrated by considering the problems with Blair's scale of complexity. Employing counter-counterarguments, he claims, is at the highest level of complexity (i.e. at the furthest 'solo argument' end of the scale). Somewhat less complex is the use of multiple chains of support; less complex again, single lines of support; and much less complex again, single argument units. However it is perfectly possible to envisage a persuasive monologue (i.e. a non-engaged, solo argument such as a letter-to-the-editor) which employs nothing more complex than a single argument unit. Equally, it is possible to imagine a debate -involving true engaged argument – in which the first question from the floor involves counter- counterarguments and multiple lines of support. Thus the scale of complexity does not seem to coincide well with a scale ranging from monologue to dialogue. Indeed, the text of either of the previous examples could be found in situations characterised as either unequivocally solo or unequivocally duet argumentation. In order to distinguish monologue from dialogue, then, it is essential to examine the physical and cognitive context in which the process of argument occurs.

Blair's complexity hierarchy also suffers from another problem in the way in which it implicitly characterises monologue as subordinate to dialogue. The hierarchy discusses the complexity of an individual turn; when that complexity reaches a sufficiently high level, the result can be termed a monologue. However, it seems inappropriate to class a monologue as an extended turn in dialogue, and the reason again turns upon consideration of the process of creating the

argument. For that process is not constrained by what the opponent has previously uttered, it has no (external) concept of 'local thesis' or 'current topic', and is not in any way constructed from rules of some super-system. It also makes many more assumptions about the beliefs of the hearer, as monologue is not afforded the opportunity for maieutic elicitation of those beliefs. The speaker is obviously aware that these assumptions concerning hearer beliefs (and attitudes – scepticism, bias, etc.) are not verifiable, and as a result, makes rather more careful use of them, perhaps placing less reliance (or less obvious reliance) upon them than she might in a dialogue, where oversights or carelessness can be addressed at subsequent turns. A speaker recognises that a monologue is a one-shot deal, and that no extra explanation or backtracking can be performed if she misjudges the hearer is some respect. Monologue, then, is constructed with rather more diligence and with greater consideration given to its reception by the intended audience than is a turn in dialogue which is generally more forgiving due to the inherently dynamic nature of its environment. This distinction clearly relies upon examining the process of monologue, and taking into consideration the various contextual factors. For the resulting product could then not only be analysed as a dialogue turn, but could in fact function as a turn in dialogue – a good example is that offered in both (Reed, 1997) and (Blair, 1997) of an academic paper followed by a published criticism: each is constructed as a monologue but can be retrodictively analysed as a turn in dialogue (and indeed this is the thrust of the second half of Blair's paper). The fact that the monologue product is functioning as a turn in dialogue in no way alters the fact that the process was one of monologue (with the various contextual expectations mentioned above) rather than one of constructing a turn in dialogue (which would not have had those expectations). Again, the same piece of text could be the result of the process of monologue in one situation and the process of creating a turn in dialogue in another. So again, identification of monologue relies upon an analysis of the process by which the text was created and the contextual factors thereof.

5. Things a Persuasive Monologue is not

The assumption that monologue is the same as a turn in dialogue is one of the most common misconceptions regarding its nature. This is demonstrated by the fact that it is held not just in argumentation theory, but also in other areas, including computational research (e.g. (Fawcett and Davies, 1992)). It is not the only such misconception, however, and mention of several others will bring this digression into a definition of persuasive monologue to a close.

Monologue is not simply a record of a line of reasoning entertained by the speaker to reach some conclusion for her own benefit. For a persuasive monologue has an aim – to alter the beliefs, behaviour or emotions of an audience, and to this end, makes careful use of the hearer model. In contrast, the reasoning processes of the speaker are neither hearer sensitive nor directed towards affecting the beliefs of anyone but the speaker. Similarly, the vital role played by consideration of the hearer's beliefs means that monologue is not soliloquy. The fact that persuasive monologue is constructed around the aim of affecting the hearer is termed by Vorobej the 'intention condition'.

Monologue is not an account of an internalised dialogue between the speaker and the speaker's model of the hearer – or between the speaker and some other conflicting model maintained by the speaker (such as a devil's advocate position). This is a particularly strong claim to make, since many authors agree that any argumentative text – whether monologic or dialogic – can be analysed as an 'implicit dialogue'. The point is made by van Eemeren and Grootendorst:

"Argumentative discourse can, in principle, always be dialectically analysed, even if it concerns a discursive text that, at first sight, appears to be a monologue…. A speaker or writer who is intent on resolving a dispute will have to take just as much account of implicit doubt about his standpoint as of doubt that has been expressed explicitly. His argumentative discourse is … part of a real or imagined *implicit discussion*" (Eemeren and Grootendorst, 1992) pp42-3.

Similarly, Freeman (1991), extending original ideas discussed by Toulmin (1958), suggests that precise implicit questions give rise to the various types of argument structure (viz. divergent, serial, convergent, linked) – the relevance question, 'why is that relevant?', causing the further premises to be adduced in a linked structure, and the ground adequacy question, 'can you give me another reason?', causing convergent structure, etc. (Freeman, 1991, pp38-9).

There is, however, a crucial difference between the process of dialogue and the process of creating a monologue, an explanation of which requires the identification of two subsets of a speaker's beliefs. Firstly, the set, S, of beliefs pertaining to propositions the speaker herself holds to be true. And secondly, the set, Hm, of beliefs the speaker believes the hearer to hold. There are two relevant facts about these sets: (1) S -> Hm can be either consistent or inconsistent; (2) Hm can be either a perfectly accurate model of the hearer's true beliefs (in the current arena of discussion) or can be flawed.

In a dialogue in which the hearer model is imperfect, the speaker will need to

detect the success or failure of her actions and perhaps re-plan subsequent parts of her argument if appropriate. She will also have the opportunity to dynamically update Hm at each turn. In situations where S _ Hm is inconsistent, the speaker may make errors -this might be characterised as the speaker not having 'thought it through'. In other words, she is aware of hearer beliefs which contradict her own, and yet which she has not yet dealt with (either by creating arguments which defeat those beliefs, or by retracting some of her own beliefs). This seems to be a common situation given the fact that significant cognitive resources may be required to assimilate a hearer's complex belief set -especially as the model is continually changing throughout a dialogue.

In the case where the hearer model is perfect and S -> Hm is consistent, a bizarre dialogue may ensue, in which the speaker will (a) be able to completely predict each hearer response (except perhaps the order in which they are given) and (b) be able to predict with absolute certainty the effect of her utterances. Any dynamic aspect is lost, and it is thus extremely difficult to imagine any real world dialogue in which this could happen. Given the complete absence of any dynamic flow, it would be perfectly possible for the hearer to offer her entire argument in a single turn. Or, to put it another way, the dialogue could be recorded and every utterance of the hearer discarded, leaving only the speaker's utterances. If such a dialogue were to be internalised and conducted between the voice of the set S and the voice of the set Hm, then we have the the process of monologue. Hm is obviously perfect in this process, since Hm is acting as a model of itself – the dialogue at this stage is being conducted between Hm and S. This process can indeed be seen as dialogic, but with the caveat that such a dialogic characterisation is one which differs importantly from real world dialogue, since Hm is perfect. Notice that it is not claimed that a real world dialogue simply *couldn't* be held between a speaker a a hearer of whom the speaker has a perfect model. Rather, such a dialogue (a) is very strange and (b) could be used to create a monologue to convince the same hearer.

The is also one further permutation for consideration: a perfect Hm but inconsistencies between Hm and S. Such a scenario is very similar to the real process of creating an extended monologue – one in which the speaker changes their mind part way through and changes what she already intended to say because she realises that the hearer could offer a counterargument (for example). This permutation seems, therefore, to be a component of the process of

generating a complex monologue. Importantly, however, it is not a phase which can be inferred from the final structure of that monologue. For the final monologue product will not involve any retraction on the part of the speaker. Similarly, a dialogic analysis of the creation of the monologue will also not involve any retraction – it will appear as though it was constructed using a perfect Hm and consistent set S -> Hm. By way of example, consider the simple example in Figure 1. Figure 1 (a) shows the process employed to create the monologue – the inconsistency between the sets S and Hm manifests itself as a retraction by S at S5. The final monologue might run as in (b). An analysis of the monologue in (b), however, would run something like (c), in which there is no retraction on the part of S because the sets S and Hm are consistent.

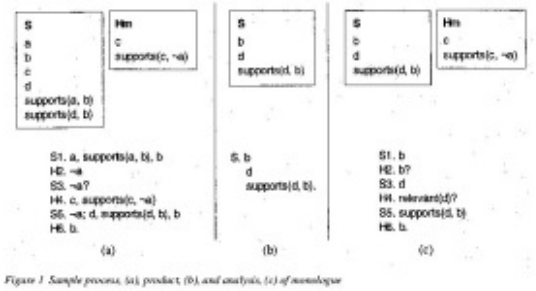

Figure 1: Sample process, (a), product, (b), and analysis, (c) of monologue

The 'pure' process of monologue (i.e. the process determined through analysis of the product, such as Figure (c)) can thus involve no retraction – that is, a speaker cannot directly assert a proposition and its negation within a single monologue. This fact further underscores the difference between the dialogic process involved in creating monologue and that occurring in real world persuasive colloquy, for the latter is usually characterised by the presence of the potential for retraction – without this potential, there would be no hope of one party successfully changing the beliefs of another (Walton and Krabbe 95, p10). (It is noted however, that there are situations in which it would be possible to have a dialogue, with one party – even the speaker – refusing any retraction: Vorobej offers an example of discussing Catholicism with the Pope (Vorobej, 1997, p6). It is clear however, that such dialogues represent rather unusual examples of persuasive discourse).

This absence of retraction in monologue is also true in instances where the monologue actually voices some of the Hm counterarguments generated during

the internalised dialogue between S and Hm. This generally occurs where the speaker wishes to offer counter-counterarguments (as discussed above), and needs to make the counterarguments clear in the first instance. At no stage in the 'pure' process does the speaker perform retraction – to do so would render the monologue incoherent and irrational.

In summary then, a definition of persuasive monologue requires first to distinguish the process of monologue from the resulting product, since the latter has no intrinsic indicator of whether it is monologue or a turn in dialogue. The distinction rests entirely on the various factors which form the context of the process, such as the speaker's expectations concerning potential for recovery from various communication failures, the precise aims of the discourse, the amount of time allotted for preparation and of space for presentation, the possibility for and frequency of hearer model update, etc. The intrinsic structure of the argument is unable to determine absolutely, but can contribute to the distinction since certain forms (in particular, those that are highly complex) are characteristic of monologue, whilst others (those that are less complex) are characteristic of dialogue turns – due to contextual pressures. Furthermore, any monologue or turn in dialogue can be analysed dialogically. The dialogic process involved in creating monologue, however, differs importantly from usual real-world dialogue in that the speaker's model of the hearer position is perfect, and as a result, the speaker is never led to retraction.

These features can be employed to frame the objective for an artificial system which is to generate persuasive monologue. This characterisation has a number of computational ramifications. Firstly, the process of generating a monologue operates in a certain, predictable environment. The speaker plans the monologue by considering the simulated effects of the actions on a simulated model of the hearer's beliefs within the speaker herself. Within this internal environment of the speaker's beliefs and simulated hearer's beliefs, the planned utterances forming the monologue have predictable effects (even if those effects model the expected variation in responses of a hearer, the model will rest on a representation of the specific range of variation). By exploiting an internal environment the speaker avoids the need to interact during the planning process and therefore is not bound by the constraints of social verbal interaction at that time. Thus, the resources available during the planning process are far less constrained than during dialogue. Often the plans themselves are less rigorously bound by resource

constraints during execution. Lastly, focus is entirely under the control of the speaker and plans which direct it very carefully between successive elements of a monologue are typical.

6. Conclusions

This paper emphasises the need for an approach to the analysis – and automatic synthesis – of monologue which is clearly delineated from techniques in which the focus is upon dialogical structure.

The discussion involves two key claims which at first sight may appear to be at odds. In the first place, for a given interlocutor, monologue and dialogue are fundamentally different: a significantly different set of constraints affect the creation of a monologue from those active during a dialogue. Equally though, monologue and dialogue (or, more precisely, a turn in a dialogue) have no intrinsic differences: analysing the structure of an argument alone cannot suffice to distinguish one from the other. These two claims are not at all inconsistent. That the *process* by which an argument is developed differs between the two forms does not entail that the *product* necessarily differs.

It is argued that although monologue can be analysed as an implicit dialogue, the dialogue reconstructed in this analysis is of a peculiar kind – one in which no retraction is evident. A monologue is thus not best described as an account of an internalised dialogue, since that dialogue does not involve the characteristic dynamics of dialogue in the real world.

The characterisation of persuasive monologue and its relation to dialogue and turns in dialogue is not complete: it is still not clear, for example, how best to characterise the scalar transition from true dialogue turns to true monologues. Nevertheless, the individuation of monologue, dialogue and dialogue turns, the identification of role the role played by the contextual situation in which the argument is constructed, and the analysis of persuasive monologue, have together provided not only a basis from which to explore these ideas further, but also a framework for the automatic construction of persuasive monologic argument.

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