

Using Toulmin's Framework for the Analysis of Everyday Argumentation: Some Methodological Considerations

MARIA SIMOSI

95, Kallisthenous Street
118 52 Athens
Greece
E-mail: maria_simosi@hotmail.com
m.simosi@lsealumni.com

ABSTRACT. This study used Toulmin's analytical framework of argumentative structure in order to examine employees' argumentative discourse on the way they handle conflict situations in their workplace. The way in which this analytical tool has been applied here challenges critics on the usefulness of the particular analytical tool for the analysis of real-life argumentation. The definition of argumentative elements according to their function in the context of a particular argument, together with the analysis beyond the level of what has been stated explicitly enabled a comprehensive understanding of how specific information, statements or assumptions are interpreted and utilized in arguments examined. Finally, the acknowledgment of the importance of 'field-dependency' of argumentative discourse, through the consideration of the social context within which this discourse is embedded, elicited the way in which this context made employees' argumentation a meaningful and acceptable discourse in this particular setting.

KEY WORDS: argumentation analysis, conflict resolution, ordinary argumentation, Toulmin

1. INTRODUCTION

Argumentation research originally followed the classical tradition and focused on the applicability of formal logic as a model for value judgments to all kinds of argumentation. Later developments challenged the appropriateness of formal logic for the analysis of everyday argumentation practices and instead introduced the idea of 'informal' logic according to which, in everyday life, 'invalid' arguments can be found to be quite reasonable as bases for practical decisions.

The term 'argumentation' alludes to a verbal activity consisting of a constellation of statements aiming to justify or refute a certain opinion and persuade an audience (van Eemeren et al., 1987). The study of argumentation has typically centred either on the interaction between two people having an argument (i.e. discussion, debate) or on written texts. This alternative focus also reflects the different senses in which the term 'argument' has been used by researchers. On the one hand, research has approached argument as a *process* and focused on understanding the



elements embedded in the process of persuasion between two participant roles (i.e. arguer – opponent). On the other hand, the perspective of argument as *product* entailed looking at the argumentative elements as a means of representing ‘meanings’, abstracted from the process of communication and presented in form of written texts; in this sense, argumentative texts were approached as finished ‘products’ of a deliberate process of reasoning (Wenzel, 1992). Rather than limiting one’s interest in how elements of a person’s viewpoint hold together, current research on argumentation is increasingly concerned with understanding properly the structure of an argument as a *product* through considering the various challenges which may arise in basic dialectical situations during which an argument has a persuasive function (i.e. argument as *process*) (Freeman, 1991).

2. THE PROBLEMATIC RELATED TO THE APPLICATION OF TOULMIN’S FRAMEWORK IN PRACTICE

Most argumentation research has employed, as a basis of analysis, schemes which refer directly or indirectly to Toulmin’s framework. However, a number of studies challenged the applicability of Toulmin’s model to real-life arguments, mainly on the basis of the clarity as well as of the differentiation between the various elements entailed in his model of argumentational structure. For instance, Ball (1994) suggested that Toulmin’s model is useful in analyzing simple arguments, rather than arguments of realistic complexity. Other researchers have advocated that the components of an argumentative structure, as proposed by Toulmin, are present in people’s ordinary argumentation (e.g. Dunn, 1981). There have also been some argumentation critics who have challenged altogether the usefulness of Toulmin’s framework for the description of real-life argumentative texts (e.g. Willard, 1976; Freeman, 1991).

The most frequent criticisms concern the difficulty of differentiating in practice between (a) data and warrants and (b) warrants and backings. The problematic differentiation between these elements can be illustrated when looking at the way in which the latter were defined by Toulmin (1958). For instance, warrants are defined as rules or inference-licenses which can ‘act as bridges and authorize the sort of step to which our particular argument commits us’ (p. 98); similarly, backings are defined as categorical statements of fact, which are beyond question, while data are *facts* (i.e. utterances containing factual information). When considering these criticisms, we need to take into account the fact that when developing his framework, Toulmin was interested in legal argumentation and, consequently, in the different sorts of propositions uttered in the course of a law-case. However, further studies, which adopted Toulmin’s model, used these definitions in contexts (i.e. ordinary everyday discourse) for which it was

not originally designed. As a consequence, in their analysis of ordinary argumentation, they have usually experienced difficulties in understanding which statements served as the grounds of the argument (i.e. data) and which as inference licenses that act as a link between the data and the claim (i.e. warrant), since the 'data' of the argument were often not 'facts', and were not always made explicit (as Toulmin has originally posited). In a similar way, these studies found that there was no clear distinction between the warrant and the backing of a particular argument, since the backing would often include some degree of inference. In general, argumentation analysts who have worked with diagramming everyday 'messy' arguments have often found instructions offered in argumentation textbooks unclear, and, consequently, expressed the need for the development of revised instructions regarding the definitions of the elements included in the argumentative structure (Freeman, 1991). As a result of the difficulties experienced when attempting to differentiate among the various elements of an argument, some studies have attempted to distinguish between them on the basis of their external form (van Eemeren et al., 1987), even though, as Toulmin himself has pointed out, the difference between the elements of an argument must be functional, rather than grammatical.

The majority of studies which have reported difficulties in the identification of the various elements of argumentative structure, as proposed by Toulmin, have used this model as a means of analyzing *written* argumentation.¹ In other words, these studies have often confined argumentation analysis to the *level of the text*, and to what has been explicitly presented in the context of the particular argument, without being interested in eliciting parts of the arguments which are left unsaid and not stated explicitly.

In order to surpass the difficulties and account for certain points of concern which were raised by argumentation theorists and critics who have used Toulmin's structural framework in the context of ordinary discourse, this study has used the framework in the following way:

First, the structural elements included in an argument will be defined according to the particular discourse context, that is, the discourse on conflict resolution in an organizational setting for which the use of the framework was intended; these revised definitions provided a comprehensible orientation when analyzing employees' arguments. The aim is to come up with clearer definitions which will enable the identification of these argumentative elements on the basis of their different *functions* in the context of the particular argument, rather than on the basis of grammatical differentiation.

Second, acknowledging the particular (and, often messy) nature of ordinary argumentative discourse, Toulmin's layout of argument structure will be used here as a model for a complete argument, which refers to elements which may not be present in all cases, rather than attempting to find the various elements (as described by Toulmin) stated explicitly in any

given argument. The elements missing in any particular argument structure may even be the ones that Toulmin considered to be basic and necessarily present in each argument (e.g. data and warrant). These elements may be missing because the arguer considers them to be well-known – or assumed – by his interlocutor and, thus, he does not regard it necessary to refer to them explicitly in his attempt to persuade the other. Inferring the missing parts of an argument is particularly important in cases that these elements are the ones serving as support of the argument (i.e. warrants and/or backings). Existing argumentation research has already indicated that, when arguing, individuals usually do not make explicit references to their beliefs and value systems, which thus remain unstated, even though their truth is necessary for the components of the argument to hold together (Govier, 1987). The implicit nature of the ‘because part’ has been found to be especially the case in business contexts (Toulmin et al., 1984). In these contexts, the warrants tend to be understated since they are related to the organization’s goals and values and are widely understood within a particular institutional context. For this reason, the analysis continued beyond the level of the text which referred to the particular argument under examination and inferred the elements of the argument which were not stated explicitly; this made possible a clearer understanding of what the arguer actually meant when presenting his argument.

Going beyond the level of the text by taking into consideration the situational context within which a particular argument is situated (e.g. both in terms of the wider discourse, as well as the social situation which gives meaning to this discourse), the argumentation analyst will be in a better position to understand and analyze an argumentative text. As Toulmin (1958) himself has pointed out, the analysis of any particular argument must be placed within a broader context (i.e. macro-argument), which should guide the analysis and the restructuring of the argument structure. Moreover, the importance of studying discourse as part of the situational context within which it is embedded has been foreshadowed in Toulmin’s work, especially in his references to ‘field-dependent’ elements of argumentation, while it has also been acknowledged by contemporary research (van Dijk, 1997; van Eemeren et al., 1997). For instance, Burelson (1992) has posited that the social context within which the argument under examination is located provides critics and theorists with important clues as to how ideas, concepts, propositions and arguments are interpreted and utilized within this given context. Taking this proposition one step further, Kneupper (1978) suggested that argumentation critics should become ethnomethodologists in order for their reconstruction of the argument examined to approximate the meaning of the argument, as intended to be understood by the arguer himself. Therefore, rather than treating the argument being analyzed as a self-contained ‘event’, the analyst needs to reflect on the broader circumstances which give rise to the way in which the particular argument under examination is fashioned. In a sense, the

context is conceptualized as providing the meaning structure in which arguments are fashioned. Thus, the analysis of the argument relies on the understanding of the meaning of the discourse, rather than the reverse (Burelson, 1992).

3. THE DISCOURSE CONTEXT – EXAMINING EMPLOYEES’ ARGUMENTS ON CONFLICT RESOLUTION

Toulmin’s analytical framework was applied to the argumentation of 26 employees working in two Divisions of a Greek bureaucratic company on the way in which they resolve conflict situations in the context of their Division. Conflict is defined here as ‘*perceived incompatibilities*’, as far as views, wishes, desires and/or actions are concerned (Boulding, 1963). Even though conflict in organizations does not usually take the form of overt hostilities, such differences are embedded in the interactions between organizational members in the course of their daily activities, and take the form of ongoing skirmishes or small ‘vengeances’ (Kolb and Putnam, 1992). In order to cover the diversity of conflict incidents in the workplace, employees were asked to refer to conflicts with people working in different hierarchical positions (i.e. colleagues, supervisors and/or subordinates). In total, the analysis included 66 episodes where employees had either (a) avoided the conflict situation altogether; (b) complied to their supervisor; (c) asked for his intervention or, (d) withdrawn from the situation.

Employees’ reasoning process about the way they handled conflict situations was revealed in their accounts. Accounts are integrated stories of a sequence of events which include besides a recounting of events, reasons for acts as well as attributions about the causes of happenings (Antaki, 1994); they are meaning-making structures regarding people’s ‘social world’ and typically include descriptions, emotions and explanations about events (Weber et al., 1992). Since accounts are seen as reconstructions of events in which the accounter gives meaning to, and constructs, a story-like explanation of events and experiences, people may construct very different accounts of the same event. In the sense that accounts are representative of the way that the ‘accounters’ make sense of particular events, they have also been regarded as ‘revealing truths’ which, instead of revealing the past ‘as it actually was’, illustrate the ‘truths of people’s experiences’ (the Personal Narratives Group, 1989).

Some researchers have emphasized the persuasive aspects of accounts (Riessman, 1993). Examining people’s accounts as stories of what happened in a particular conflict situation, we inevitably analyze their explanations of the situation; as Antaki and Leudar (1992) suggested, the notion of explanation is associated to an explicit or implicit question regarding why a given story (rather than some other story) is an acceptable account of what happened. In such explanations, people use a series of claims and

counter-claims in their attempts to justify their story and make it accepted – by the listener – as ‘true’. In this sense, explanations have argumentative functions. The pervasiveness of explanations in people’s argumentation can be understood when considering that, when reasoning and arguing, people strive to support their claims and make them acceptable to their audience; in this respect, employees make use of argumentative language when constructing their accounts of conflict episodes in their workplace.

Employees’ accounts were collected in the course of open-ended interviews. When choosing to conduct interviews and rely on employees’ accounts of conflict situations, I was aware of the likelihood of biases inherent in this research method as well as of possible misunderstandings in interpreting what was said in the interviews and making inferences based on the evidence collected. To counter-balance the existence of any pre-conceptions and biases (in terms of ‘hypotheses’ and expectations), I used open-ended interviewing. Conducting interviews in a conversational manner allowed employees to feel free to express themselves as they wished, instead of the researcher directing attention to certain discussion topics rather than others; this approach enabled the gathering of information which is richer in comparison to other methods of data collection.

In addition, and as a means of reducing possible misunderstandings, I decided to enrich information collected through interviews with my personal observations and experiences from informal conversations with employees of the company. During my daily presence in the company in the period of conducting interviews, I had the opportunity to be participant in – and sometimes observer of – some informal discussions among various employees (some of whom were interviewed later); these discussions were held during their coffee or lunch breaks at the firm’s canteen and while using the same buses for transportation to and from work. Such interactions somehow compensated for the issue of ‘artificiality’ of interviews, which arises from the special rapport between interviewee and interviewer in ‘one-shot’ interviews (Mishler, 1986). Moreover, informal discussions with people working in the Human Relations Office as well as the opportunity to walk around the company’s premises offered a rich bank of information about the history, culture and the current situation of the firm and constituted the background against which I could ‘locate’ interviewees’ references to conflict interfaces. All these pieces of information also proved very helpful in the analysis of the information collected.

The present analysis focused on the identification of the backings (used either implicitly or explicitly) in employees’ arguments. The importance of identifying the backings lay on the fact that they provided the deep-seated reasons, which justified employees’ claims on their conflict behaviour. Due to the fact that backings are the more general rules (often left implicit) which are used as further support for the warrants of the argument (which are more frequently stated explicitly), the identification of warrants in employees’ arguments was also important, as a means of eliciting the

underlying backings of the arguments analyzed. The researchers' personal observations and experiences in the firm, together with the fact that the researcher was Greek herself (and thus shared the same cultural heritage as the interviewees), facilitated an understanding of what constituted acceptable backings in the particular organizational and social setting.

4. DEFINITIONS

In general, the criterion for differentiating between various elements of any particular argument has been to examine how the particular employee has chosen to use the information which he has included in his argument, that is the specific *function of* each element in the context of a particular argument. Information included in employees' discourse, and which did not form part of the argument examined, often provided clues when distinguishing between the various structural elements of the argument.

Claim: A statement which contains structure and is presented as the outcome of the argument; it refers to the course of action followed by the employee in a particular conflict situation.

'There was nothing else I could do but comply [. . .]'

Data: An utterance which constitutes the evidence at the employee's disposal. It may refer to past events, information about the conflict situation at hand, or the communication exchanged between the two parties. In general, any utterance used as a point of departure in the particular argument on the basis of which the claim was made was coded as *data*.

'He asked me to work on a computer program, which was not our responsibility.'

'The disagreement had continued for a long time.'

In many instances, employees were making claims which they used as information on the basis of which they made other claims or they 'supported' the main claim of their arguments. These claims would thus operate as *data* in the context of the arguments used, in the sense that they were used unchallenged in order to establish their main claim about the way they handled conflict situations. Even though this information consisted of claims that the employee was making, the acceptability of which was questionable, this information was coded as *data*.

'This person was unfriendly; he always had bad intentions towards me.'

Warrant: An utterance which is used as a rule, principle, premise or inference-licence and acts as a bridge between the data and the claim. By answering the question 'how do you get from "data" to "claim"?', the

warrant indicates the relevance of the data to the claim. The rule may refer to different levels of generality; for instance, a specific warrant may allude to a concrete reason, which refers to information relevant to that particular case, or express reasons which more directly allude to the person's beliefs (stemming from social and/or organizational values).

'The issue [at stake] was serious.'

'Because he is an idiosyncratic person and he is quite old.'

'In the workplace, you cannot have a pleasant conversation.'

Usually, there was no external criterion for differentiating between data and warrants in employees' arguments. The distinction between data and warrants of a particular argument was achieved by examining how the employee has chosen to use the information which he has included in his argument. If a statement was used as part of the definition of the situation in hand, then this statement was considered to be part of the data of this particular argument; on the contrary, if the employee has used the (same, or similar) statement in order to indicate the relevance of the data to the claim, then this statement has taken the role of a warrant in the particular argument.

Backing: An assumption which provides support to the warrant; it may take the form of a factual information (i.e. observations made in the past), or a principle, value or belief which is enacted in employee's belief system from the social context, the organizational environment, or his/her past experiences as an individual.

'Prior examples have made me think so.'

'For important issues, the supervisor needs to take the responsibility for taking a decision.'

5. IDENTIFICATION OF IMPLICIT BACKINGS – MAKING THE INFERENCE STRUCTURE OF EMPLOYEES' ARGUMENTS EXPLICIT

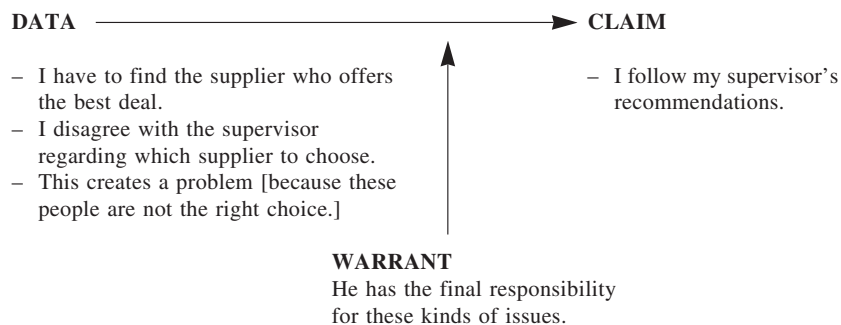
The preliminary analysis of employees' arguments indicated that employees often stated their warrants explicitly, which enabled the interpretation of the data as support for their claim. However, in most of these cases, they have not referred explicitly to the backings which would provide the reasons ensuring the acceptability of the warrants used. Overall, out of the 66 arguments examined, 48 arguments analyzed were found to contain an explicit justification of some kind (i.e. warrant or backing). Specifically, 46 arguments were identified which contained explicitly stated warrants in their structure, while employees stated explicitly the reason supporting their warrants only in 16 arguments.

The identification of the implicit backings was essential in order to make

employees' chains of reasoning explicit, since these assumptions are necessary for employees' inferences to work, when reasoning and arguing. The backings left implicit in their argumentation were inferred on the basis of the warrants used in any particular argument, which were more often stated explicitly in employees' discourse. Specifically, based on the information presented in the form of the warrant used in any particular argument, attempts were made to reconstruct the inference structure used by the arguer in the particular case examined. While, in some cases, the backing of the argument could be inferred directly from the warrant stated in the same argument, in most cases, the underlying backing could only be inferred indirectly, from that statement in conjunction with other, intermediate propositions. In the latter cases, each step in the process of reconstructing the employee's inference structure was an inference move and was 'legitimized' by the fact that it followed logically from – and was recognized as acceptable by – as well as relevant to – the previous step; the last inference step in each of the employees' inference structures, represented the assumptions underlying employees' argumentation.²

Below, three examples of employees' argumentation are presented to illustrate how the 'enterprise' of reconstructing the (partly implicit) structure of justifications in employees' arguments has been put into practice. The focus of this reconstruction has been to demonstrate how the backings supporting employees' arguments, which were often left implicit, were inferred (either directly, or through intermediate inference moves) from the components of the arguments which were stated explicitly. In general, the last inference step in each of the employees' inference structures analyzed represented the assumptions underlying employees' argumentation.

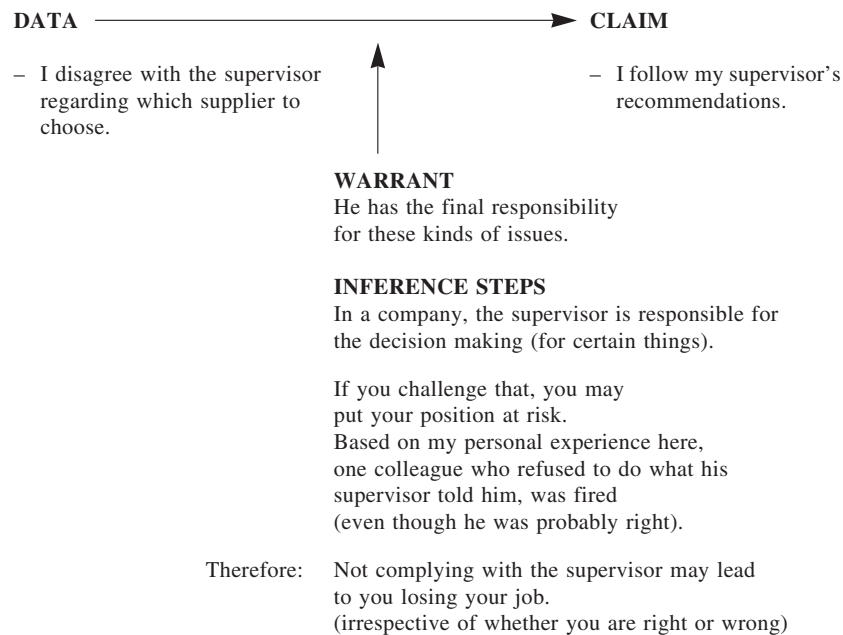
'According to our job description, I have to find the supplier who offers the best deal (Data). It may be the case that my supervisor 'proposes' or orders a certain choice of people to you [with which you disagree] (Data). This creates a problem [. . .] (Data). If I disagree with the supervisor regarding which supplier to choose, I just follow my supervisor's recommendations (Claim). Unless he realizes that I am right, in which case our discussion ends with a common agreement (Rebuttal). Even though you may still disagree, he has the final responsibility for these kind of things (Warrant). It has happened that a colleague has refused to do what his supervisor told him; the outcome of that situation was that this employee was fired, even though he was probably right (Backing).'



BACKING

A colleague has refused to do what his supervisor told him; as an outcome, he was fired (even though he was probably right).

Focusing on the ‘because’ part of the argument, as stated *explicitly* in the above argument, and, more specifically, on the way in which the backing offered supports the stated warrant, we can see that the structure of this argument has an inference ‘gap’; to put it simply, it is not very clear how the backing stated in this argument provides support to the warrant ‘the supervisor is responsible for these things’. Rather than approaching the argument as having an ‘inadequate’ inference structure, this inferential ‘gap’ in the structure of this argument is only seen as indicative of the fact that the arguer left the intermediate propositions – which would lead the listener logically to the stated backing – *implicit*, since he felt that they could be understood by his listener/interlocutor. Thus, assuming the existence of a series of intermediate steps which were left implicit at this point of the arguer’s reasoning process, the need arose for the researcher to reconstruct them as a means of facilitating understanding regarding how the stated backing offers appropriate support to the stated warrant. The reconstruction of the different steps of the employee’s inference structure in this particular case would look like:

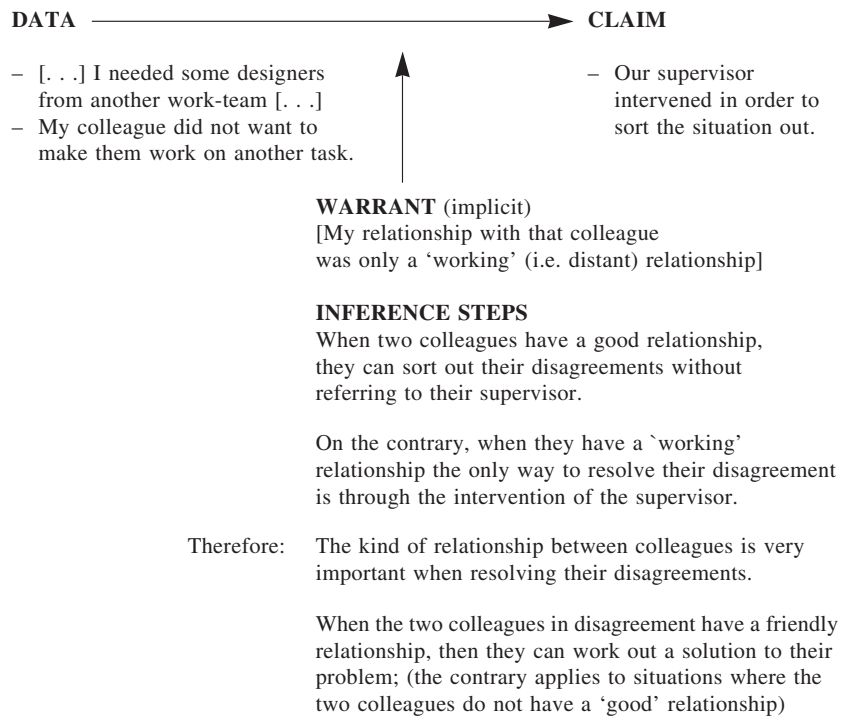


The two inference moves between the warrant and the backing stated explicitly in the argument are necessary for understanding the connection

between the warrant and the backing stated explicitly in the argument. In this sense, it is safe to go one step beyond the stated backing and assume that the premise which underlies this employee's inference reasoning in this argument is 'not complying with the supervisor may lead to you losing your job'.

Let us now have a closer look of the inference structure of the following argument:

'Some time ago, I needed some designers from another work-team to help me with an issue related to computers (Data). The supervisor of that team (my colleague) did not want to make them work on another task (Data). In the end, our supervisor had to intervene in order to reach a compromise (main Claim). In general, when there is a disagreement between two employees from the same rank of the hierarchy, the disagreement is resolved only after the intervention of the supervisor (Backing). It all depends on the relationship between the two people involved; when you have a good relationship with the other person, you don't need to refer to the supervisor (Backing). When you have only a 'working' relationship and a disagreement arises, then the disagreement is sorted out through him (Backing).'

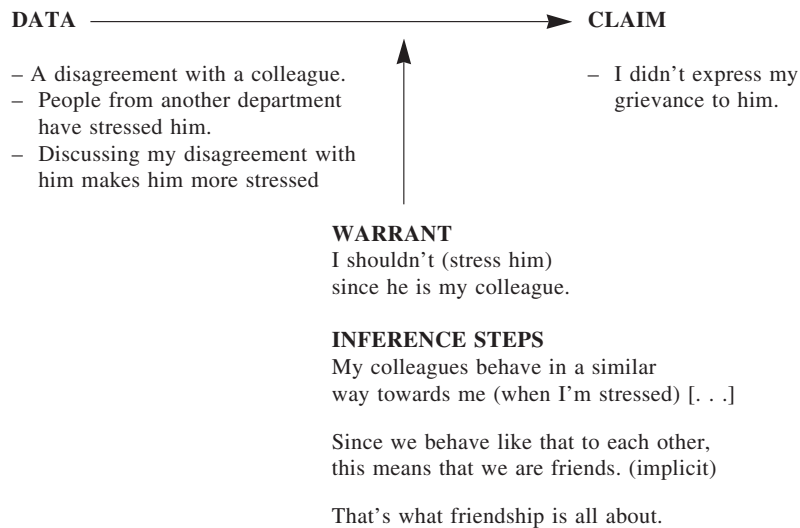


In this example, we can see how the statement presented originally as the backing of the argument is further elaborated and qualified as the argument unfolds. Specifically, even though the employee presents an organizational rule (i.e. 'when there is a disagreement between two employees from the

same rank of the hierarchy, the disagreement is resolved only after the intervention of the supervisor') as the backing of the argument, he then introduces another reason (e.g. the issue of the nature of the relationship between the two parties in conflict). In the light of this reason, the previously stated rule is no longer appropriate, without modification.

The issue of the relationship between two parties is also raised in the following argument; this time, the series of inferences reconstructed makes direct references to the notion of friendship:

'There are times when you want to say something (i.e. express my disagreement) [to a colleague] but you just leave it for another time (main Claim). [. . .] I see that the other person is stressed out . . . and I know that, if I discuss it with him then, I'll make him even more stressed (Data). [. . .] people from another department have stressed him (Data), I guess I shouldn't do the same, since I'm his colleague (Warrant). This is not the right thing to do; you see, my colleagues behave in a similar way towards me: when they see that I'm pressed, they don't make things worse for me (Backing). That's what friendship is all about (Backing).'



The reconstruction of employees' inference structure suggests the existence of the following assumptions in their argumentation on their conflict handling behaviour. These assumptions sometimes were backings of the arguments examined, while, most of times, they would go beyond the backing of the argument and follow logically from it; in the latter cases, they were brought to the fore through the process of identifying employees' inference chains.

1. *The supervisor is responsible for solving problems in the workplace.*
2. *Employees should follow the supervisor's recommendations.*
3. *Employees must not question the orders coming from the upper hierarchy.*

4. *Going against the supervisor's will may lead to losing your job.*
5. *There is always good intention in social interactions among friends or: In friendship, people care for each other.*
6. *When the other person is not cooperative (e.g. has bad intentions), there is no chance of finding a solution to the problem.*

As this analysis revealed, power conditions are keenly looked at by employees in this company and organizational rules and behavioural norms are strictly followed. The assumptions found to underlie employees' arguments clearly drew on bureaucratic rules which are espoused and in use in the particular company. The use of the first three assumptions has to be seen in connection to a fourth principle which was rarely expressed explicitly: 'Going against the supervisor's will may lead to losing your job'. Thus, obedience to hierarchical authority and adherence to bureaucratic rules and regulations, provided employees with a means of maintaining security. The last two principles drew on employees' values and belief systems which were formed within the wider social context. These assumptions were mostly used in cases of conflict incidents among colleagues and alluded directly to the 'ingroup'/'outgroup' concept which is a great determinant of interpersonal relationships in Greek culture (Triandis, 1972).

In general, the findings of the analysis are in line with Toulmin's (1958) postulate that backings are the 'field-dependent' components of the arguments, in the sense that their 'truthfulness' and acceptability rests on the particular context within which they are employed. The pervasiveness of the assumptions used in employees' discourse in this particular work context was also suggested by the frequent absence of these propositions from their explicit argumentation.

6. RELIABILITY OF THE ARGUMENTATION ANALYSIS

Qualitative research has used certain methods in order to counterbalance the subjective nature of data analysis. According to Berelson (1952), an objective account of the content of analysis would mean that the same results are obtained when the content is analyzed by two independent analysts. As a means of enhancing the quality of the way in which data were coded, an inter-coder reliability measurement was incorporated in regard to the identification of warrants and backings reported explicitly in employees' arguments on their conflict behaviour.³ The second coder was familiar with Toulmin's analytical tool and had already used it in the analysis of real-life arguments. A series of discussions were held between the two coders, regarding the rationale followed in this study (i.e. approaching the argument as a process, nature of ordinary argumentative discourse) as well as the way the units of analysis were defined. The second

coder was also presented with the coding scheme which was devised by the first coder for the purpose of the particular discursive context of the present study; the coding scheme included detailed definitions of the elements of the argumentational structure.

The proportion of mean pair agreement (MPA) in the identification of warrants reported explicitly in employees' discourse on their conflict management was estimated to be 72.3%, while the proportion of agreement in the identification of the stated backings was estimated to be 75%. The level of agreement for each of the cases (i.e. warrants, backings) was calculated in the following way; number of utterances coded by both coders as warrants (or backings): number of utterances identified by both coders as warrants, plus number of utterances identified uniquely by the first coder as warrants (or backings), plus number of utterances identified uniquely by the second coder as warrants (or backings).⁴ The level of agreement was increased to 81.5% and 87.5% respectively, as a result of further discussions between the two coders after the initial coding.

The level of agreement, both in regard to the identification of the warrants and the backings stated explicitly in employees' arguments, constitutes an acceptable level of agreement (Krippendorff, 1980) and is satisfactory when compared with other studies on argumentation. For instance, Canary and Sillars (1992), who devised a coding scheme which was based on various models of argument (including Toulmin's), obtained a very low degree of inter-rater reliability agreement (κ ranging from 0.41 to 0.60) for categories for what they called 'reason-using' and 'reason-giving' arguables, which refer to structural categories similar to data, warrants and backings of Toulmin's framework; however, given the abstract nature of the categories included in this coding scheme, the authors of this study considered this level to be satisfactory. In general, a review of such studies reveals that inter-coder reliability tests are rarely included in their reports; or, when they are, they refer to the classification of data/warrants/claims, already identified by the first researcher, into categories such as clarity, accuracy, consistency to which each structural element corresponds at different degrees. However, judging from the thorough critique made by argumentation researchers regarding the difficulty of differentiating among the various elements of the argument structure when using Toulmin's framework, we would expect low scores in inter-coder reliability tests, especially as far as the distinction among data, warrants and backings are concerned. Chambliss' study (1995) should be treated as an exception to these studies, since the coders' level of agreement was as high as 91%. However, the high level of agreement in Chambliss' study should be seen not only in relation to the fact that her analysis was based on the generation of clear-cut definitions of the elements of Toulmin's framework, but also in relation to the text units analyzed which were examples of a quite straightforward argumentation (i.e. students' recalls of a written argument).

In the present study, the high degree of agreement between the coders

(especially when taking into account the difficulties reported by existing studies to differentiate between data/warrants or warrants/backings of an argument) can be attributed to the fact that the coding scheme used by both analysts comprised clear-cut definitions of Toulmin's argumentative elements (devised according to the particular discursive context within which this analytical framework was used) as well as to the focus on the function that the various utterances had in the context of particular arguments, rather than on the content of these utterances (i.e. kind of information presented).

7. IMPLICATIONS OF THE PRESENT STUDY FOR ARGUMENTATION ANALYSTS

From the application of Toulmin's framework in the context of this study, some useful suggestions can be drawn for researchers embarking on the analysis of real-life argumentative texts. These suggestions are worthwhile, especially when taking into consideration the extensive commentaries on the usefulness of Toulmin's framework for the description of ordinary argumentation.

First, there are no 'external' criteria upon which we can differentiate which sorts of information are used as data, claims, warrants or backings in employees' discourse. A proper description of the various argumentative elements needs to be based on the different functions that these elements play in the context of the particular argument, and depends on the way in which the particular arguer has selected what information to use as evidence or as a rule which connects this evidence to his claim. For instance, information used as data on some occasions had the function of a warrant in other arguments, while unsupported claims were often used as data in employees' argumentation. In general, the form or the content of the argumentative elements are not suitable criteria for the analyst to be able to describe the structure of the argument under examination. For this reason, the argumentation analyst needs to examine how the information included in the argument examined 'operates' in the context of the particular argument. In other words, the analyst needs to reflect on whether the arguer makes a claim when stating an utterance or uses this claim as a piece of information which helps him define the situation at hand (i.e. data); she also needs to examine whether such information serves as a part of the definition of a situation, or rather, as a principle supporting the connection between the data and the claim made.

Second, everyday argumentation needs to be approached as a communicative event, during which the arguer may omit certain argumentative elements which are thought to be shared or understood by his interlocutor/listener. In this sense, arguments may often appear incomplete as outlines of the underlying reasoning. For instance, in the context of the

present study, some sets of tacitly shared beliefs and meanings were inferred and found to be taken for granted by organizational members when building their arguments. The adequate understanding of employees' argumentation necessitated the reconstruction (by the analyst) of these steps of their inference structure which were left implicit. Rather than being suggestive that Toulmin's framework cannot be successfully applied to real-life arguments, this finding indicated the need to fill in what has not been said by the arguer, and which was left implicit. For this reason, when describing argumentative structure, the analysts whose research interest lies on understanding the arguer's argumentation process, should not restrain themselves to the level of what is actually presented in argumentative texts studied and attempt to bring to fore those elements which are left understood. They need to identify assertable propositions which, though unexpressed, nevertheless constitute the premises to which the arguer is committed when making his claims. Going beyond the level of the text and identifying the implicit parts of employees' argumentation chain also enables an appreciation of how the stated elements of any particular argument are related to each other.

In this enterprise which involves making inferences, the analyst needs to be receptive of the particularities of the social context within which the arguments examined are fashioned, in order to make a more 'informed' choice regarding the meaning that the arguer actually intended to communicate when presenting his argument. In the present study, the consideration of the organizational and wider social context enabled an understanding of how this context made employees' argumentation on conflict a meaningful and acceptable discourse in this particular setting. More specifically, the analysis suggested that the propositions which were left implicit in employees' argumentation were accepted as common knowledge by employees working in this particular organizational context, were assumed to be true, and were expected to be tacitly understood between those participating in the interaction (i.e. the arguer and the listener). These sets of tacitly shared beliefs and meanings were taken for granted when employees constructed their arguments, and the representation of their meaning allowed the reasons they offered to stand in a justifying relation to the claim of their argument. The importance of the analyst's gaining an understanding of the characteristics of the social situation, within which people construct their arguments, was illustrated, in the context of this study, by the pervasiveness of the social situation (i.e. cultural and organizational) in the kinds of assumptions that employees used as their ultimate support for their claims, as well as in the implicit nature of these assumptions.

In the meantime, the analyst needs to be cautious in balancing her own sense of logical direction with due respect for what the arguer actually meant by paying particular attention to the specific situational context

which shaped the creation of the argumentation. In this study, interaction with employees prior to – or after – the interviews as well as my experiences in the firm provided the background information which allowed me to justify my interpretation in terms of contextual considerations of the particular situation, and thus minimized the likelihood of ‘arbitrarily’ assigning meanings to propositional elements of the arguments under examination; familiarization with this context enabled me to make ‘informed’ guesses when inferring missing parts of employees’ arguments and facilitated a wider understanding of this discourse as used within the socially organized context of the specific organizational environment.

8. CONCLUSIONS

The present discussion of the argumentation analysis illustrated that an adequate understanding of people’s argumentative discourse is enabled only when taking into account both the properties of the text under examination, which have been stated explicitly, as well as those characteristics which are left understood, and which can then be inferred through the consideration of the social context within which this discourse is fashioned. Experience from applying Toulmin’s framework in the context of this study together with Toulmin’s postulates regarding the possibility of certain components of the argumentative structure being implicit in the explicit structure of the argument examined and the consideration of the social context when describing argumentation (e.g. through his notion of ‘field-dependency’), suggest that challenges of the application of Toulmin’s framework in ordinary argument should not be seen as related to the framework itself, but rather, to the way it has been applied by argumentation researchers and analysts.

NOTES

¹ On the contrary, and as Freeman (1991) has posited, the notion of warrant has been found to be straight-forwardly applicable to arguments as ‘process’.

² The inference structures were reconstructed only for those arguments which included some kind of justification as a support to the claim (i.e. *stated* warrants).

³ Only the warrants and backings which were used as a support to the main claim of employees’ argumentation (i.e. the claim regarding the particular conflict behaviour used in the specific conflict episode reported) were identified and coded by both coders.

⁴ In regard to the identification of warrants in employees’ arguments, the first coder identified 62 warrants while the second coder identified 50; out of the utterances identified by both coders as warrants, 47 utterances were coded by both coders as warrants. In the case of the identification of backings, the first coder identified 24 backings, while the second coder identified 18, all of which had already been identified by the first coder.

REFERENCES

- Antaki, C.: 1994, *Explaining and Arguing: The Social Organization of Accounts*, Sage, London.
- Antaki, C. and I. Leudar: 1992, 'Explaining in Conversation: Towards an Argument Model', *European Journal of Social Psychology* **22**, 181–194.
- Ball, W. J.: 1994, 'Using Virgil to Analyze Public Policy Arguments: A System Based on Toulmin's Informal logic', *Social Science Computer Review* **12**(1), 26–37.
- Berelson, B.: 1952, *Content Analysis in Communication Research*, Free Press, Glencoe, Ill.
- Boulding, K.: 1963, *Conflict and Defense*, Harper and Row, New York.
- Burelson, B. R.: 1992, 'On the Analysis and Criticism of Arguments: Some Theoretical and Methodological Considerations', in W. L. Benoit, D. Hamble and P. J. Benoit (eds.), *Readings in Argumentation*, Foris, Berlin, pp. 259–277.
- Canary, D. J. and A. L. Sillars: 1992, 'Argument in Satisfied and Dissatisfied Married Couples', in W. L. Benoit, D. Hamble and P. J. Benoit (eds.), *Readings in Argumentation*, Foris, Berlin, pp. 737–764.
- Chambliss, M. J.: 1995, 'Text Cues and Strategies Successful Readers Use to Construct the Gist of Lengthy Written Arguments', *Reading Research Quarterly* **30**(4), 778–807.
- Dijk, T. A. van: 1997, 'The Study of Discourse', in T. A. van Dijk (ed.), *Discourse as Structure and Process*, Sage, London, pp. 1–34.
- Dunn, W. N.: 1981, *Public Policy Analysis: An Introduction*, Prentice-Hall, Englewood Cliffs, NJ.
- Eemeren, F. H. van, R. Grootendorst and T. Kruiger: 1987, *Handbook of Argumentation Theory*, Foris, Dordrecht.
- Eemeren, F. H. van, R. Grootendorst, S. Jackson and S. Jacobs: 1997, 'Argumentation', in T. A. van Dijk (ed.), *Discourse as Structure and Process*, Sage, London, pp. 208–229.
- Freeman, J. B.: 1991, *Dialectics and the Macrostructure of Arguments*, Foris, Berlin.
- Govier, T.: 1987, *Problems in Argument Analysis and Evaluation*, Foris, Dordrecht.
- Kneupper, C. W.: 1978, 'On Argument and Diagrams', *Journal of the American Forensic Association* **14**, 181–186.
- Kolb, D. M. and L. L. Putnam: 1992, 'Introduction: The Dialectics of Disputing', in D. M. Kolb and D. M. Bartunek (eds.), *Hidden Conflict in Organizations: Uncovering Behind-the-Scenes Disputes*, Newbury Park, CA, pp. 1–31.
- Krippendorff, K.: 1980, *Content Analysis: An Introduction to its Methodology*, Sage, London.
- Mishler, E. G.: 1986, *Research Interviewing*, Harvard University Press, Cambridge, MA.
- Personal Narratives Group: 1989, 'Truths', in Personal Narratives Group (ed.), *Interpreting Women's Lives: Feminist Theory and Personal Narratives*, Indiana University Press, Indianapolis, pp. 261–264.
- Riessman, C. K.: 1993, *Narrative Analysis*, Sage, Newbury Park, CA.
- Toulmin, S.: 1958, *The Uses of Argument*, Cambridge University Press, London.
- Toulmin, S., R. RIEKE and A. JANIK: 1984, *An Introduction to Reasoning*, 2nd edition, Macmillan, New York.
- TRIANDIS, H. C. and V. Vassiliou: 1972, 'A Comparative Analysis of Subjective Culture', in H. C. Triandis et al. (eds.), *The Analysis of Subjective Culture*, Wiley, New York, pp. 299–335.
- Weber, A. L., J. H. Harvey and T. L. Orbuch: 1992, 'What Went Wrong: Communicating Accounts of Relationship Conflict', in M. L. McLaughlin et al. (eds.), *Explaining One's Self to Others*, Lawrence Erlbaum, Hillsdale, NJ, pp. 261–280.
- Wenzel, J. W.: 1992, 'Perspectives on Argument', in W. L. Benoit, D. Hamble and P. J. Benoit (eds.), *Readings in Argumentation*, Foris, Berlin, pp. 121–143.
- Willard, C. A.: 1976, 'On the Utility of Descriptive Diagrams for the Analysis and Criticism of Arguments', *Communication Monographs* **43**, 308–319.