ISSA Proceedings 2006 – On Relevance

1. *Introduction*

Arguments are not formulated in vacuo, nor are they constructed for their own sake**[i]**. They are articulated in a specific context – which, of course, could be transcended both in time and in place.**[ii]** They are also addressed to an intended audience, which could even be one's self. Arguments are used to inform and enlighten students, colleagues or friends, either individually or collectively. We use arguments to persuade or dissuade somebody from doing something or to criticize or support a view or a theory. We employ arguments to decide upon a course of action, either our own or somebody else's, and then we also employ them again in order to evaluate it. To achieve any one of the above goals, we provide reasons,**[iii]** which support our conclusion or account for our actions. This process, as we have argued elsewhere, is the mark of rationality (Papagounos and Polychronides 2003).

However, the arguments that we provide, in order to be successful, must be considered sound. Logicians claim that one of the conditions that must be satisfied for an argument to be sound is that of validity (Copi and Cohen 1998, Bohenski 1979, Kneale and Kneale 1984). Contemporary argumentation theorists make an analogous claim: "A single argument can be considered sound only if the underlying reasoning is logically valid or can be made valid."(van Eemeren et al. 2002, pp.94-95). Practical reasoning theorists seem to claim that for an argument to be valid the reasons must be relevant to the conclusion. For example, Stephen Naylor Thomas (1986, p.120) claims that "[…] validity and invalidity are characteristics of reasoning that depend mainly on the *internal relationships among* the several statements that are connected together as the reason(s) and the conclusion(s) inside the [argument]." [Thomas' emphasis]

The question, however, remain what is this "*internal relationship*" and what allows reasons to be "*connected*" to the conclusions. We claim that what establishes validity is precisely the relevance of the reasons to the conclusion. Relevance expresses the internal relationship of the reasons and their connectedness to the conclusion so that, given their truth, the soundness of the argument can be established.

Presently, despite the emphasis on the importance of relevance, the conditions under which a reason is considered to be relevant to the conclusion are not elaborated upon systematically in the literature. A notable exception is the recent work of Douglas Walton (2004) who places the problem of relevance in a broader argumentative context and discusses various theories of relevance proposed by other scholars. It should be noted that in practical reasoning and logic textbooks, one finds many examples of valid and invalid arguments using relevance as a criterion and it is also stated that reasons have to be relevant to the conclusion for an argument to be valid. However, specific and detailed criteria to determine what precisely relevance is, are not provided, even though some scholars claim that within the context of communication we intentionally employ reasons that we consider to be relevant to both parties (van Eemeren et al 2002, 52ff , Wilson and Sperber 2002).

There seems to be a general assumption that one can intuitively determine whether a reason is relevant to the conclusion or not. However, it seems also to be the case that not all intuitions, either those that pertain to one's daily life or those which have to do with theoretical concerns, turn out to be correct.**[iv]** Furthermore, one's intuitions are personal and, therefore, they do not necessarily lend an objective or, at least, a broadly acceptable support to claims concerning the relevance of the reasons to the conclusion in the arguments that are expressed, evaluated or criticized.

Apparently, there is a need to formulate more explicit criteria of relevance in order to facilitate the evaluation of arguments. The pedagogic aspect of argumentation and informal reasoning makes this need more pressing. We will proceed to articulate and describe such criteria of relevance, which we consider necessary in assessing arguments and effective in teaching practical reasoning and argumentation.

2. *The scope of the question of relevance*

The discussion of any criteria of relevance must start from the observation that the contexts within which reasoning is employed and arguments are put forth vary (Toulmin 1958 and Toulmin et al 1979). People reason and argue differently when talking to their children than to their colleagues. Specific social groups employ different arguments. Physicians and lawyers reason and express their thoughts differently and so do astrologists and palm readers. It is also the case that social or age groups use words, which are not understood by others. In scientific discourse one has to keep in mind Antoine Lavoisier's remark that the

terminology of a science cannot be separated from the science itself. (Lavoisier 1965, p.xiv). This observation, however, does not apply to formal languages because of the assigned stable meanings of the symbols used. Despite this breadth of the question of relevance the criteria which apply are uniform. Consequently, the articulation of such criteria of relevance requires the distinction, first, between the relevance of the terms involved in both the reasons and the conclusion of an argument. Second, it concerns the relevance of the premises to the conclusion of the argument.**[v]** This distinction is called for by the different mechanism by which the two types of relevance are discerned.

3. *The relevance of terms*
The first problem in determining the relevance of terms in arguments expressed in natural languages is due to the phenomenon of the ambiguity or equivocation of the terms employed, namely the uncertainly of which of the meanings of the words is the relevant one in the given argument. For example, the word "bank" may mean either "the place where one keeps his money" or "where one may sit in order to fish in a river" (Thomas, 1986 p. 155).

Second, words exhibit what we refer to as the "multiple singularities of meaning". We claim that depending on the acquaintance with the breadth of the spectrum of referents of a word, one can attach a multiplicity of meanings to it. Thus, each one of those "knowledge" domains attaches singular meanings to the word in question. A word may have a meaning, which is common to a large number of people, and it could also have meanings that are shared by fewer people or even be private.**[vi]** Depending on how knowledgeable one is concerning a variety of objects, events, persons etc. she can discern the variant single meanings that a certain word has. For example, one may not know that within the scope of the referents of "14th of July" the French national holiday is included. Someone else may not know that a very good friend of one of the authors celebrates his wedding anniversary, whereas everybody knows that "14th of July" refers to a date and we don't mean a "date".

In an argument one may evoke as a reason for, say, that he will not show up for a meeting because it will be held on the 14th of July since this particular date is of great importance to him. The problem in this case is that his colleagues who think of the "14th of July" as just a date may not know the knowledge domain according to which the importance of this date derives and they may consider his reason irrelevant. In other words, they may not know whether it is patriotism, matrimonial duties or just a caprice that he evokes to support his statement. As a

result of these difficulties, in assessing the relevance of the words used, it is necessary to know both the precise usage and the specific singularity of meaning involved in the given argument.**[vii]**

4. *The relevance of reasons*

The second aspect of relevance within an argument that of the premises to the conclusion, is equally complicated. We employ, in order to determine this relevance, the three Aristotelian criteria of certainty, namely the epistemic, the social and the psychological, as well as, the criterion of truth (Papagounos 2000). Aristotle in his works establishes these criteria of the certainty of fundamental propositions on the basis of which scientific activity can be carried out in a rigorous fashion and, therefore, produce new knowledge. It is precisely the above criteria that we employ in order to discern the relevance of the premises to the conclusion in argument.

A. *the epistemic criterion*

The epistemic criterion allows for the recognition of the relevance of a proposition in terms of the knowledge basis within which it is located. This criterion applies mainly in arguments, which are addressed to audiences sharing the same or similar skills, theories and practices. For example, a surgeon in arguing that she refused to operate on a specific patient she would have to provide reasons which would have to be immediately recognized as relevant or irrelevant by her hospital's ethics committee, on the basis of the accepted corpus of medical knowledge and practice. Claims such as that she did not feel the need to practice her skills on that particular day or that she disliked the patient's demeanor would be dismissed as irrelevant because they would not be accepted as relevant by the medical community. Similarly, a lawyer could not evoke as a reason for rejecting a client his dislike of the latter's religious beliefs.

We do not limit the epistemic criterion to theoretical or professional activities but we extend it to include practical skills as well. Epistemic relevance may characterize the reasons provided by a gardener not to plant tulips in July or by a car mechanic explaining why one should change his car's battery. Further, epistemic relevance of this sort characterizes the reasons which we provide in accounting for daily practical activities. It is this sort of relevance that allows us to decide which route we will choose to take in getting to one place to another during rush hour or to decide which vegetables are fresher than others. Epistemic relevance is also evoked in assessing films, books, music and plays.

It has to be kept in mind that the knowledge basis and cognitive skills necessary for the detection of epistemic relevance may vary from one historical period to another and from one society to the next. The reasons drawn from western medical practice appear to be relevant only to those acquainted with the specific field and the mode of operation of the specialists at the given time. Nobody bleeds a patient with high blood pressure nowadays nor does one question the earth's revolutions around the sun.

Epistemic relevance depends largely on the uniformity of the domain itself as well as of the skills of the practitioners. Such uniformity was evident in, e.g., the late middle ages, when the theoretical corpus was that of scholasticism, and the training of scholars was standardized. The existence of a *lingua franca* allows for the application of the epistemic criterion since it facilitates the diffusion of knowledge and it protects both the person who formulates the argument, as well as, the audience, from the problems that would arise from translation. Today, the uniformity of, e.g., chemical theory and the English language as the *lingua franca* allows chemists from Chile and India to work in the same laboratory in Canada.

The epistemic criterion, however, is not limited to those who partake to a certain corpus of knowledge. It is also employed by anybody who seeks to lend epistemic support to a specific claim. When one tries to dissuade her husband from planting tulip bulbs in July she may evoke the gardener's opinion on the matter. Similarly, when a mother urges her children to abstain from junk food she evokes the available medical knowledge. A danger present in the use of this criterion is to commit the fallacy of the appeal to authority, namely evoking an expert's opinion on a matter outside her jurisdiction.

B. *The social criterion*

Aristotle claims that a proposition may acquire certainty in the *agora*, by the ascent of the many to it (Aristotle. *Topics* A, 100a30-100b23). In other words, certainty is determined by the public. This social criterion can be also used to ascribe relevance to a premise on the basis of what is currently viewed as related, as connected in a given society or social group. Ideologies, worldviews and religions provide frameworks within which relevance is established in social contexts. One's socioeconomic status may be used as a reason to account for his behaviour by those for whom such a relation is considered to be valid. Racist and sexist views are sometimes supported by reasons which are accepted by the members of a specific social group. Additionally, social groups assent to views which they consider necessary for their survival and welfare. Human rights is an

example of a concept which satisfies the criterion of relevance when used in arguments addressed to liberals as does the protestant ethic in accounting for one's behaviour in addressing a protestant audience. Shared experiences, education, acculturation, a common history and language allow people to form relevance relations among entities, events, phenomena, facts etc. and express these in the reasons which they provide to support their claims.

This social criterion is not applied uniformly in a given society at a certain historical period. Hooligans coexist with monks in contemporary Greek society despite the fact that they share very few beliefs, aspirations and behaviours, something which results in radically different ways of assigning relevance to the reasons justifying a trip to a distant town. Psychiatrists of differing theoretical orientations also coexist in their professional associations despite the different therapeutic interventions that they would justify concerning specific patients.

The existence of subcultures and social groups results in the construction of specific sets of beliefs shared by their members on the basis of which relevance is accorded. Since societies are not stable formations, the sets of beliefs that characterize both the whole as well as their parts are not fixed. Despite the fact that what is socially relevant may change, the criterion is still in use. However, in the application of this criterion there exists, as well, the danger of committing the fallacy of the multitude. For example, some ethnic groups hold the view that they are "god's gift to earth" and they feel that this, as a reason, justifies any action they take against other groups. The fact that they do hold this view does not lend support, as far as everybody else is concerned, to their actions.

C. *The psychological criterion*
Aristotle's seminal remarks on the minds of both animals and human beings (*Metaphysics*, Bk.A, *Posterior Analytics* B99b35, B100a3-6, B100a12-16) are still of value today, since important research on these issues is carried out and whole fields of study which focus on animal and human thought are developing. The psychological criterion that Aristotle evoked concerning certainty is the result of the synthesis of his epistemological and logical principles. The acquisition of knowledge, the logical principles employed and the operations of the mind provide with certainty specific propositions. We claim that relevance is also assigned on the same grounds, that is, it depends on the way we perceive the world around us and we establish connections among things on the basis of our experiences and our physiological and mental cognitive apparatus.

Contemporary studies on relevance theory**[viii]** support our claim that one of the

criteria that are employed in determining relevance is the psychological one. Relevance theorists study the cognitive, the linguistic and the communicative parameters involved in assigning relevance. Researchers examine human rationality in order to determine how decisions are made. They explore the use of logical rules and non-logical heuristics in decision-making. An evolutionary approach is often used to investigate performance on reasoning tasks including probabilistic thinking (Allot 2002). Cognitive and perceptual biases, involved in reasoning, are examined in order to determine the ability to make inferences (De Mendoza Ibaňez 1999 and Breheny 2001).

Scholars such as Wilson and Sperber stress the communicative aspect of relevance. They state that "[…] the expectations of relevance raised by an utterance are precise enough, and predictable enough, to guide the hearer towards the speaker's meaning." (Wilson and Sperber 2002, p.250). They consider that "[…] an input (a sight, a sound, an utterance, a memory) is relevant to an individual when it connects with background information he has available to yield conclusions that matter to him" (p.251).

One of the dangers that may arise out of the employment of the psychological criterion is that one may view it as regarding strictly emotional states of the individuals, thus ignoring its cognitive and unconscious components. This would result in committing the fallacy of the appeal to emotions, namely supporting a conclusion in one's argument simply by presenting feelings as reasons or evoking corresponding feelings in the audience.

4. *Conclusion*

We have argued that, since the relevance of the reasons to the conclusion in an argument is the criterion of validity, specific criteria to determine this "*internal relationship*" are required. We also argued that this requirement could be satisfied by the adoption of the threefold criterion of Aristotelian certainty. However, the independent application of any one criterion, besides the danger of committing fallacies, detaches relevance from the broader epistemic concerns and social milieu of the individual and the audience to which the argument is addressed. We should stress that all three criteria should be applied simultaneously while the emphasis, which is placed on any one of them, may differ. This difference is due to the context within which arguments are articulated and presented. However, the context can change. There maybe epistemic, social or psychological contingencies, which can result in the differentiation of the emphasis on any of the criteria. Additionally, societies are

transformed over time, theoretical domains are modified and psychological states change.

Despite these changes, people present arguments and communicate. This seems to be due to a gradually acquired competence. Competence in the use of arguments is the ability to weigh, in specific contexts, the various criteria of relevance, determine which is the most appropriate and apply it in the choice of the reasons, which support the specific conclusion. In other words, it may seem appropriate to emphasize epistemic relevance in formulating an argument within a theoretical framework. On the other hand, one might need to stress the psychological components present at a given time in order to support reasons, which would make the conclusion acceptable to the addressee of the argument.

A closing remark is in order, at this point. We require of arguments not just to be valid but also sound. This means that the reasons provided can't just be relevant but they must also be true. The problem of truth has been extensively discussed in the philosophical literature and it does not fall within the scope of the present analysis. We would like, however, to point out that the choice of any of the various criteria of truth, namely that of correspondence, that of coherence or the pragmatic one, must be supported by reasons.

NOTES

[i] An earlier version of the present study was presented at the International Debate Education Association's conference "Debate and Argumentation: Opening Minds, Borders, and Societies" which was help in Istanbul, Turkey between November 5-7, 2004

[ii] In other words, an argument formulated by Aristotle, by Galileo or by Heisenberg could be of significance today, even if none of the three thinkers may have had such intentions.

[iii] For stylistic purposes we use the terms "reasons" and "premises" interchangeably.

[iv] We are aware of the claim of intuitionist mathematics about the certainty and the truth of our intuitions of mathematical objects (the nature of mathematics as mental constructions are governed by self-evident laws). Such a claim does not invalidate our view concerning the evaluation of arguments in the natural languages because of the radical difference of the latter from formal languages.

[v] It should be kept in mind that in certain arguments the relevance of one or more reasons to the rest is decisive, in respect to their validity, as is the case of the conjunctive argument.

[vi] Gottlob Frege in his classic "On Sense and Reference" (in P. Geach and M. Black. Translations from the Philosophical Writings of Gottlob Frege, 2nd edition, Oxford: Blackwell 1952) states: "A painter, a horseman, and a zoologist will probably connect different ideas with the name "Bucephalus". This constitutes an essential distinction between the idea and the sign's sense, which may be the common property of many and therefore is not a part or a mode of the individual mind. For one can hardly deny hat mankind has a common store of thoughts which is transmitted from one generation to another" Pp.58-59.

[vii] We realize, of course, that our remarks cannot exhaust the problems dealt in the discussions of the theory of meaning in fields such as philosophy, linguistics, psychology, cognitive science etc. However, we find it necessary to articulate the two parameters of word relevance, which we consider crucial in evaluating arguments.

[viii] A very extensive bibliographical list on current research on Relevance Theory, which has many articles available online, can be found at http://www.ua.es/personal/francisco.yus/rt.html
Papagounos in "The Logic of Ethics and Psychoanalysis." In: G. Papagounos, Texts on Ethics. Athens, Papazisis, 1999 [In Greek] claims that all therapeutic interventions rest on the assumption that there are reasons, which account for these phenomena and the ensuing acts. Further, there are specific modes of intervention, such as, e.g., psychoanalysis, which do indeed attempt to construct – by discovering the reasons – a complete argument in which the behaviour or a specific act of an individual takes itself the place of the conclusion.

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