

ISSA Proceedings 2010 - Acceptance, Epistemic Concepts, And Argumentation Theory



1. Introduction

Within the field of argumentation theory, one central approach has been epistemically motivated. John Biro and Harvey Siegel, Christoph Lumer, and Alvin I. Goldman are some of the contributors to advocates of the epistemic approach. In general terms, the idea is to link argumentation theory to epistemology, that is, to the philosophical theory of knowledge. At the outset, this seems as a very good idea, especially if one defines the concepts of knowledge and argumentation using a concept of justification. The point I wish to argue is that despite the close relation of epistemic concepts and argumentation, the general theory of argumentation should be kept separate from epistemology in the sense that the general theory of argumentation as whole should not be defined in a way that restricts its application to knowledge only.

In section 2 I will describe the epistemic approach, or more accurately, some issues dealt with by Biro, Siegel and Goldman, that are relevant to my case. These include the definition of argumentation or argument, and especially within that definition the concepts of believing in truth of a claim (or truthlikeness or highly probable of a claim). Section 3 is titled 'A general argumentation theory', and there I will explain my view that a general argumentation theory is about the process and product of forming arguments, and that the issues within argumentation are not restricted to factual claims, but may include value claims. In section 4, I will shortly take a look at the domain of epistemology and a definition of knowledge. In section 5, I shall describe the domain of argumentation theory in terms of what kinds of points of views there are, and especially point out about value claims, that within philosophy there is an open dispute about the status of value claims, namely between cognitivists who claim that moral statements do have a truth value, and non-cognitivists who claim that moral statements do not have a truth value. The upshot of this is that if argumentation is defined using the concept of truth, then in the case moral statements do not have a truth value they would be outside the domain of

argumentation theory by definition. In section 6, I will take a look at the concept of acceptance and its relation to some epistemic concepts. Relying on the distinction of semantic/pragmatic I propose that argumentation theory is defined pragmatically using the concept of acceptance, not using semantic concepts. Section 7 deals with the critique of pragma-dialectics by epistemic approach, and the idea is to view how well judging arguments with criterion of truth seeking goes, and my conclusion is that it is not promising. In section 8 I present some additional remarks and state my conclusion.

2. The epistemic approach

In Siegel and Biro (1997) the epistemic approach is further developed from their earlier (Biro and Siegel 1992). They defend a normative approach (against a descriptive approach) and by this they wish to be able to make judgments on arguments in terms of their goodness or badness. Their idea is to 'cash out normativity in *epistemic* terms', and they straightforwardly state that 'arguments aim at the achievement of knowledge or at least of justified belief' (Siegel and Biro 1997, 278; original emphasis). Their position is even more clearly stated in their (2006, 94) where an argument is said to be good if it gives reasons to believe the truth of the conclusion. Siegel and Biro (2008, 192-193) find acceptability as described in the Pragma-Dialectical theory inadequate, and call for an objective epistemic theory (Biro and Siegel 2006).

Goldman (2003) also approaches argumentation with an epistemic mindset. He is much more modest than Siegel and Biro regarding the importance of the epistemic approach (that is, he allows for other approaches to have significant import to the study of argumentation; Goldman 2003, 52). However, he stresses the view that argumentation should be seen as aiming at justified beliefs, and he furthermore stresses the close relationship between justification of beliefs and truth. A belief is, according to Goldman (2003, 62), likely to be true, if it is justified.

Christoph Lumer has worked with the epistemic (or epistemological) approach in a number of publications (see, for example Lumer 2005a, 2005b), and positioned himself among the above mentioned Biro, Siegel, and Goldman on the one hand, and on the other hand criticized the pragma-dialectical approach on a number of points (Lumer 2010). The key features of the epistemological approach are described by Lumer: 'An epistemological theory of argument is characterized by two features. 1. It takes the standard function of arguments to be: to lead the

argument's addressee to (rationally) justified belief, i.e., to guide him to realize the truth or acceptability of the argument's thesis - where 'acceptability' is intended to be a broader term, meaning truth, high probability or verisimilitude. 2. It develops criteria for good arguments and argumentation on this basis, i.e., it designs them in such a way as to fulfil their epistemic function.' (Lumer 2005b, 213-214).

The critical examination of Pragma-Dialectics and its comparison to epistemic (or epistemological) theory by Lumer (2010) illuminates quite nicely what the epistemic approach is after. One recurring theme in the critique is the worry that Pragma-Dialectical theory is - possibly, in the end - consensualistic; that is, it does not provide sufficient criteria for evaluating arguments, but in the end the evaluation of arguments is up to an unqualified consensus among the arguers (Lumer 2010, inter alia 41, 67, et passim; for example, Lumer on page 67: Pragma-Dialectics is (partly) composed of 'unqualified and therefore unsatisfactory consensualism'). Whether or not this overall critique is apt, I will not take sides here; the point of mentioning this is just that it shows nicely what Lumer is after in the epistemic or epistemological approach: the function of argumentation is to reach knowledge (or justified belief) rather than consensus. Lumer concludes in his examination of the functions of argumentation that procedural rules of Pragma-Dialectical theory of discussion are the strong point, but the rules for argumentation *proper* are the weak point. (Lumer 2005a, 190; Lumer 2010, 67)

What is common, among many other things, for the above mentioned theorists in the epistemic approach is that they closely bind the concepts of justified belief and truth.

3. A general argumentation theory

By argumentation theory I mean a theory that deals with the process where claims and reasons to accept the claims are formed and/or put forward, and that deals with the nature of the relation of reasons and claims. I take the product of such process to be relevant to the study of argumentation. A number of definitions for argumentation could be cited, but I will settle with a fairly general definition due to van Eemeren and Grootendorst (2004, 1): 'Argumentation is a verbal, social, and rational activity aimed at convincing a reasonable critic of the acceptability of a standpoint by putting forward a constellation of propositions justifying or refuting the propositions expressed in the standpoint.' Even though

someone might prefer a different wording and perhaps even disagree with at least part of this definition, I shall take it as a starting point for my treatment of argumentation and arguments. I shall stress that an important feature of Pragma-Dialectical approach is that the concept of *standpoint* is to be understood to cover without restrictions any subject matter: 'facts, ideas, actions, attitudes, or whatever' (van Eemeren and Grootendorst 1992, 14); this is what I mean by generality.

Also, I take a general argumentation theory to be rich enough to describe the process of argumentation. Here also, I take the Pragma-Dialectical theory to cover the ground: argumentation proceeds from the confrontation via opening and argumentation stage to conclusion stage. A critical discussion (argumentation in the above sense) is related to a standpoint, and after one discussion, another discussion with the same difference of opinion can be commenced, should the parties choose to do so (though, to repeat the discussion with exactly the same background knowledge and values would be futile, but not so with different knowledge or values). (van Eemeren and Grootendorst 2004, 60-62). What is also noteworthy in the Pragma-Dialectical theory is that also a discussion rule may be taken up and critically discussed. This is called a meta-discussion (ibid, 143), and it implies that the critical parties may also discuss about validity of argument schemes, or (if I have correctly understood the spirit of Pragma-Dialectics) even the whole argumentation theory.

4. What is epistemology and how to define knowledge?

Epistemology deals with theory of knowledge and justification, according to Robert Audi (2003, x). With this broad characterization, it is trivially true that if argumentation is defined as activity aimed at justification, then argumentation is related to epistemology, by definition. However, justification by these definitions is neither exclusively reserved for knowledge claims nor conceptually linked to truth.

Defining knowledge is not a trivial matter, neither is the question of the purpose of the definition. Walton and Godden discuss, with reference to argumentation theory, the traditional definition of knowledge as 'true belief plus something else', where the 'something else' may be a number of things; for example, justification or evidence (Walton and Godden 2007, 6). In effect, Walton and Godden are actually dealing with a set of definitions, where each definition has in common true belief and they differ with respect to the 'something else' part. Nevertheless,

Walton and Godden end up presenting a definition of their own for pragmatic purposes of argumentation theory: knowledge is 'justified acceptance of a proposition based on evidence and supported by rational argumentation to a specified standard of proof' (Walton and Godden 2007, 10). It could be said that the traditional definition is stricter, and it is more suitably thought of as an ideal than as a practical definition like the Walton-Godden definition. I will not discuss the merits of either definition, the mentioning of the set of traditional definitions (as Walton and Godden describe them) and Walton-Godden-definition of knowledge gives a glimpse of the spectrum of knowledge definitions. However, it is notable that Biro, Siegel and Lumer that I have taken to represent the epistemic approach, are closer to the traditional view, and especially notable is that truth is not mentioned in the Walton-Godden definition.

5. Value statements as points of views

An important question about knowledge is this: what is our knowledge about, that is, what sorts of things can be substituted for X in 'S knows X'? This question leads into philosophical debates about the nature of subject matters like facts, actions, and values, because the standpoints in argumentation can - generally speaking - be about these kinds of subjects. If acceptability of a standpoint is the goal of argumentation and we follow the epistemic approach in that acceptability is to be understood as truth or truthlikeness, then we should demand of the standpoints that they ought to be true or probable. But is this a reasonable?

Let me take, as an example of a standpoint, 'It is immoral to cheat on one's spouse'. Would it be possible to say that it is true (or false) that cheating on one's spouse is immoral? The answer ultimately depends on the philosophical view one takes regarding moral language. The issue is rather complicated, and this is reflected by the discussion around it (for a short exposition of that discussion, see for example van Roojen 2009). However, to establish the point, one does not need to go into the details of that discussion. A non-cognitivist would answer the question about the above-mentioned statement, that it is neither true nor false, since moral statements do not have truth values, and a cognitivist would answer that the statement is true (or false), just like other kinds of statements. In order to give a general idea, an emotivistic non-cognitivist could take the moral statement to be more like an emotional cry similar to an accusation like 'You thief!'. The idea of seeing moral statements as not similar to factual statements, but rather as similar to something else, like a greeting such as 'Good morning', leads to the

view that moral statements do not have a truth value (Ayer 1971, 110-111). A non-cognitivist could also take some other than emotivist interpretation, such as a variant of prescriptivism, but I will not go there. A cognitivist, on the other hand, could answer the question and say that the statement is true (or false).

The philosophical question of whether statements about moral (and perhaps other, such as aesthetic) values can be assigned a truth value or not is related to a number of philosophical issues. One bundle of issues is related to truth; for example, Hare (1993, 30) mentions the meaning of truth, the formal characteristics, the conditions of truth, and the function of usage. Also, whatever position one takes on the existence of (moral and other) values, that is, on ontology of values, a philosophical theory is needed. What I am saying, is that there are questions and positions one could tackle, there are open disputes on many fundamental questions regarding ethics; these issues are unsettled. So, going back to the question of whether it is reasonable to demand that 'acceptability' should be understood as 'true', or 'probable', it would seem wise to withhold from taking a stand, at least for the time being.

The point of bringing up the fact that these issues are unsettled within the field of philosophy, is that with respect to a general argumentation theory one is basically to choose between two possibilities: incorporate into the argumentation theory also a theory of ethics (understood widely), or keep argumentation theory neutral of any specific theory of ethics[i]. If an argumentation theorist constructs a theory that includes a very detailed theory of ethics, taking a strong stand on, say, the mode of existence of moral values or specific moral norms, then - if the argumentation theory includes an evaluative component - the theory would automatically cast a negative judgment on any statement that presupposes a rival ethical standpoint. This kind of situation would not be intrinsically contradictory, as it would only lead to a situation where for each philosophical position there would have to be a stand on argumentation theory as well (assuming, of course, that argumentation is seen as possible with regards to that philosophy). However, if a general, non subject specific theory of argumentation is to be sought for, then one should resist the urge of incorporating substantial positions into that theory. It should be noted about the philosophical discussion on ethics, that a general argumentation theorist might want to study that argumentation, and the study should not be biased by the argumentation theorist's view on the ethical issues.

So, should there be an argumentative discussion about the morality of cheating

one's spouse, and the parties would settle the dispute after a reference to, say, hedonistic grounds, then the argumentation theorist can not make an absolute judgment about that standpoint or the grounds by which the dispute was settled. Regarding the epistemic approach, if it is defined by theorizing about discussions that aim at justified beliefs that are true or probable, or discussions that tend to produce truths, then the approach by definition excludes discussions that rely on moral statements, should it turn out that it does not make sense to talk about truth (or probability) of a value statement. The point could be extended to cover for example political views and legal judgments as well, since it could be – generally speaking – said that they rely on values.

6. Acceptance, truth, and belief

A general theory of argumentation is not restricted by a specific subject matter, it covers factual statements as well as value statements. Of factual statements it is quite natural to say that they are true or false, but it is not evident that a truth value could be assigned to a value statement (as said before, philosophers disagree on this point). I understand the relationship between the concepts of truth and acceptance in such a way that one (in most, or normal circumstances) accepts truths; if I asked someone 'why do you accept the claim that Helsinki is the capital of Finland?', a natural response would be 'well, it is true, isn't it'. In normal circumstances (that is, no 'for the sake of the argument' – situation or argumentation competition or something similar is the case) we do not accept falsities. The same goes for beliefs and truths: we do not normally admit that what we believe is not true. (What are normal circumstances is admittedly vague. Furthermore, it has been shown that the issue is rather more complicated than exposed here. Paglieri and Castelfranchi (2007) present as their view that belief and acceptance are independent yet often coinciding, but still functionally distinguishable. I agree with much of what they say, including the view that belief and acceptance have different functions and that acceptance is best seen as having a pragmatic function rather than equating acceptance with, say, true belief; however I am not sure that belief has always an alethic function.) Likewise, we accept moral statements that we take to be *right* or *correct* (or what ever term you prefer) or even *true* (if one is a moral cognitivist). But the difference between the concepts of *acceptance* on the one hand, and *truth*, *right*, *correct* etc on the other, is that acceptance is a pragmatic concept, and the latter are semantic concepts. Generally speaking, the pragmatic concept of acceptance refers to the discussion at hand, whereas the semantic concepts have a reference to reality

beyond the discussion. One could point out that truth could be understood as not a matter of a relation of a proposition and reality, that is, there are other ways to understand the concept of truth[**ii**].

Acceptance can be viewed as a more general concept than just referring to assertions. As van Eemeren and Grootendorst (1984, 25) present it in terms of speech act theory, a speaker that for example warns or advises someone or makes a request, has as an aim that the listener accepts the warning, advice, or request. In those cases, it would be rather stretching the concept of truth to say that accepting the request is the same as holding the request true. Even though this point does not go directly against the epistemic approach of argumentation, it does show that the usage of the term acceptance is more naturally suited to the pragmatic level than to the semantical level; this is a point of usage.

7. About the critique of Pragma-Dialectics by the epistemic approach

Biro, Siegel, and Lumer have critiqued the Pragma-Dialectical approach, which I take to be a general argumentation theory in the sense that it allows claims (or standpoints) to be about anything. One central issue they take to be a problem with Pragma-Dialectics is *normativity* (Siegel and Biro 1997, 281-284) or unqualified consensualism (Lumer 2010). Siegel and Biro propose that normativity should be understood epistemically, that is, 'good arguments *warrant* their conclusions', where conclusions are to be seen as justified beliefs or knowledge (Siegel and Biro 1997, 278). Lumer deals with the function of argumentation, and proposes an epistemological approach - that is - truth seeking approach to argumentation theory (Lumer 2010, 47-48).

It seems that, if it turns out (or at this point, if it is possible) that value statements are neither true nor false (or probable or improbable), then Biro, Siegel, and Lumer are in effect imposing on a general argumentation theory a restriction on the subject matter. To see where their view seems to lead, it is worth while taking a closer look. Let it be, for the sake of the argument at least, that truth and justified belief were understood widely enough to cover value statements, so that it would be sensible to say of a statement like 'it is not morally permissible to cheat on one's spouse' that it is true (or false), or in a restricted sense acceptable. The point of this assumption would be to see whether it would make a difference, with regards to the demand of the normativity (in the sense Biro and Siegel present it) or rejection of unqualified consensualism (in the sense Lumer presents it). The epistemic approach demands that an argumentation theory should be able

to give conditions of adequacy for an argument to be acceptable (objectively, or by standards that are justified with regards to truth). However, what sort of conditions of adequacy can one give for an argument for a claim 'it is morally not permissible to cheat on ones spouse'? For an argument to be acceptable, there would have to be an idea of what constitutes cheating, there would have to be acceptable notion of morality, and an idea of how cheating relates to immorality. Practically speaking, I can not see how in a general argumentation theory there could be any *substantial* view about what are the correct conditions for cheating, and unless this sort of substantial view is presented, there is no way of giving a judgment of the truth or acceptability of the statement. There could be formal ideas as to how the concepts in the premises and conclusion have to be related (say, a logical, or a conceptual relation could be a criterion). In principal, someone might propose a general theory where the exact criteria for cheating were in fact given, but for that kind of approach to meet the requirement of generality, it would have to be a theory of practically *everything*.

The point could be illustrated by taking a look at an argument Siegel and Biro in their (1992, 90-91) put forward. 'Two disputants are arguing about the upcoming election. Both agree that the most handsome [...] should be elected. They disagree at the outset, about which candidate is most handsome [...] but after some discussion, during which the rules of the code of conduct are honoured, the dispute is resolved and the participants agree that they should vote for candidate C.' Now, what Siegel and Biro are after here, is that a normative argumentation theory should judge this argumentation irrational. The problem is, in my view, that a general argumentation theory just can not take sides on a substantial matter like whether it is true or acceptable that the most handsome candidate is the one to be voted for, or, who *is* the most handsome candidate. It could be the case, that handsome people get their agendas through better than not-so-handsome people, and should it be the case that the agendas are not so different, then the disputants would be quite 'rational', according to standards of Siegel and Biro, if I am not mistaken. It would be too much to ask for an argumentation theory to include a view on how things in the world are and how things in the world should be. **[iii]** And I might add, even if this was demanded, it most probably would result in a dispute among argumentation theorists about what is the matter of fact in very many cases. So, I gather that the critical account towards Pragma-Dialectics that Siegel and Biro present actually leads to a situation where the argumentation theory is a theory of everything, or if not, then

a critical discussion about the issues would be in place in order to resolve the difference of opinion, in which case for example the Pragma-Dialectical view would suffice.

8. Conclusion and some additional remarks

A general argumentation theory that is not limited by a subject matter of an argument should take into account factual as well as value statements. It may be the case - depending on the philosophy of the nature of value - that value statements are not assignable a truth value. Therefore believing in the truth of a statement should not be a criterion of acceptability of all statements. I have not argued that truth should not be a criterion of knowledge. But I have argued (in section 7) that argumentation theory can not practically speaking take a stand on truth value of a specific factual statement, or the acceptability of a specific value statement (for example the aesthetic statement that a candidate is handsome or the statement that handsomeness is irrelevant to woerthiness of a candidate), which seems to follow from the discussion in Biro and Siegel (1992).

I have treated truth is a semantic concept, and by this I mean that it relates to reality; the truth value of a statement depends on how things are in the world. Argumentation theory can not include a view of how things in the world are (as it can not be a theory of everything). The situation is analogical for value statements: the semantics might be different from factual statements (which possibility I am referring to by bringing up the philosophical debate between cognitivist and non-cognitivists), but whatever the philosophy behind values, the semantical evaluation of a specific value statement is not the business of argumentation theory, and likewise for a factual statement. I wish to make a clear distinction between two separate points here: that truth in general is not (necessarily) a criterion for all possible statements is one point (which is what I wanted show with the argument on there being an open discussion between moral cognitivists and non-cognitivists). Another point (which is directed towards the theory due to Biro and Siegel) is that the truth value of a particular statement is not generally speaking the business of argumentation theory.

It is not perfectly clear what Toulmin means with his concept of 'logical type' (Toulmin 1958, 13-14; van Eemeren et al 1996, 136-137), but from the examples Toulmin provides of statements belonging to different logical types I gather that it is close to what I am after when I refer to the possibility of value statements having different semantics than factual statements. In Toulminian terms, I think,

my point could be rephrased as pointing to field-dependence of criteria of sound arguments.

Besides all this, there is an additional complication for a view that defines argumentation in terms of truth, namely situations where it is clear to all parties of the dispute and the evaluator that the statements they are dealing with are plainly *false*. One such situation could be a competition, another could be for educational purposes in a class room, and yet a third, a situation where one party just goes along to see if the other party can make a coherent case for a standpoint. For the sake of generality, I think that a theory of argumentation should be applicable to these admittedly non-standard cases. This does not necessarily pose a serious problem for an epistemic approach as such, if the approach is defining a standard function of argumentation. After all, a number of types of argumentation could be defined. Nevertheless, if generality is an issue, then truth can not be a defining characteristic for argumentation. This complication would not be so problematic for a theorist who would allow loosening of definition of argumentation (like Lumer, who admits also non-standard functions). But it would strictly speaking - I think - affect the definition in the sense that truth could not be the aim of any argumentation.

One further note I wish to make, is that I am not against theorizing about epistemic or epistemological issues in relation with argumentation; I think that, for example, when Lumer discusses the function of argumentation (Lumer 2010), he does talk about a very important area - knowledge. The role of argumentation in epistemology deserves attention, attention that it so far has not received too much (only recently did Walton and Godden (2007) bring up quite fundamental topic of defining knowledge with respect to argumentation theory, which shows that the area is still in need of research). The discussion of the definition of knowledge from the perspective of argumentation theory by Walton and Godden results in a refined definition, and a notable difference is that in the Walton-Godden definition truth does not play a role. From the perspective of epistemology, truth may certainly be of vital importance, and argumentation theory may have an important input for epistemology, but there should be a division of labour between argumentation theory and epistemology, as their domains do not coincide. The relation of argumentation theory and epistemology should then be seen as complementary.

I will finish with one final remark. What about the semantic issues such as what

are truth conditions of facts or correctness conditions for ethical statements, how does a general argumentation theory treat them? Well, the parties see if they agree upon the criteria appropriate to the subject matter. If they agree, they then go about on arguing on those agreements. If they do not agree, then they are free to take the criteria as the subject matter of a meta-discussion. An argumentation theorist may evaluate the argumentation and arguments in the following instrumentalist sense: Compared to criterion C, the argumentation or the argument meets (or doesn't meet) the criterion. C may be a general or specific criterion (but as I have argued on the limits of a general argumentation theory, a general theorist can not have specific stands on substantial issues), but the meta-discussion about the criterion C is open for discussion among argumentation theorists, *just as it is open for any arguer.*

NOTES

[i] One anonymous reviewer asks at this point 'Why is the relationship of argumentation theory to ethics any more of an issue than its relationship to other inquiries, like logic?' I am not quite sure what the reviewer is referring to. If the question is about *which* logic should the argumentation theorist adopt, my reply would be that a number of different logical systems may be applicable to argumentation (and arguments). If the question is whether *any* logic should be kept apart from argumentation theory, then my reply is that logic is a vital theory when describing relations of propositions between premises and conclusions. Elaboration of these issues is not possible here.

[ii] An anonymous reviewer brings this point up in one comment. I am under the impression that Lumer, Biro and Siegel would see truth as a relation between a proposition and world (I am not sure at all about this and I may very well be mistaken about the views of Lumer, Biro and Siegel, but for example in Lumer 2005a it may be gathered that a consensus view is contrasted to the view of Lumer's.)

[iii] An anonymous reviewer points out that the point of Biro and Siegel 'is that agreement on false or unjustified beliefs is not enough to make the belief worthy of acceptance; an argumentation theory needs to leave room for pointing out that the belief is false or unjustified'. But Biro and Siegel do not explain why handsomeness is not a good criterion to vote for a candidate, they just say it is irrational or unjustified. The anonymous reviewer states that 'Siegel and Biro in their (1992) are not demanding that an argumentation theory include a substantive judgment on whether handsomeness is a relevant criterion for

choosing among candidates in an election, but merely that the theory allow for normative judgments on such a question.' As I understand it, the judgment made by Biro and Siegel is unjustified. As I point out in the text there may have been quite good reasons behind the discussants; my point is that Biro and Siegel have to assume that there is no relevant connection between handsomeness and worthiness in order to make their judgment. To make such an assumption would – in a manner of speaking – make them participants of the discussion, or they would have to have an argumentation theory that included the information that 'handsomeness is irrelevant when deciding on a candidate'.

REFERENCES

- Audi, R. (2003). *Epistemology. A contemporary introduction to the theory of knowledge*. 2nd edition. Routledge.
- Ayer, A.J. (1971) *Language, Truth, and Logic*. Penguin Books. Harmondsworth. (Originally published in 1936)
- Biro, J, & Siegel, H. (2006). In Defense of the Objective Epistemic Approach to Argumentation. *Informal Logic* Vol. 26, No. 1 (2006): pp. 91-101
- Biro, J., & Siegel, H. (1992). Normativity, Argumentation, and An Epistemic Theory of Fallacies. In F. H. van Eemeren, R. Grootendorst, J. A. Blair and C. A. Willard (eds.), *Argumentation Illuminated*, SICSAT, Amsterdam, pp. 81-103.
- Eemeren, F.H. van, & Grootendorst, R. (1984). *Speech Acts in Argumentative Discussions*. Dordrecht, Foris.
- Eemeren, F.H. van, & Grootendorst, R. (1992) *Argumentation, Communication, and Fallacies. A Pragma-Dialectical Perspective*. Lawrence Erlbaum Associates. Hillsdale, New Jersey.
- Eemeren, F.H. van, et al (1996) *Fundamentals of Argumentation Theory. A Handbook of Historical Backgrounds and Contemporary Developments*. Lawrence Erlbaum Associates. Mahwah, New Jersey
- Eemeren, F.H. van, & Grootendorst, R. (2004) *A Systematic Theory of Argumentation. The Pragma-dialectical approach*. Cambridge University Press.
- Goldman, Alvin. I (2003) An Epistemological Approach to Argumentation. *Informal Logic* Vol. 23, No.1: pp. 51-63
- Hare, R.M. (1993) Objective Prescriptions. *Philosophical Issues*, Vol. 4, Naturalism and Normativity, pp. 15-32. Ridgeview Publishing Company. <http://www.jstor.org/stable/1522823>
- Lumer, C. (2005a). Introduction: The Epistemological Approach to Argumentation

- A Map. *Informal Logic* Vol. 25, No.3, pp. 189-212.
- Lumer, C. (2005b) The Epistemological Theory of Argument - How and Why? *Informal Logic* Vol. 25, No.3: pp. 213-243.
- Lumer, C. (2010) Pragma-Dialectics and the Function of Argumentation. *Argumentation*, Volume 24, Number 1, 41-69.
- Paglieri, R. & Castelfranchi, C. (2007). Belief and acceptance in argumentation. Towards an epistemological taxonomy of the uses of argument. In *Proceedings of ISSA 2006* (pp. 1011-1018). Amsterdam, Sic Sat.
- Roojen, M. van (2009) "Moral Cognitivism vs. Non-Cognitivism", *The Stanford Encyclopedia of Philosophy (Fall 2009 Edition)*, Edward N. Zalta (ed.), URL = <http://plato.stanford.edu/archives/fall2009/entries/moral-cognitivism/>
- Siegel, H., & Biro, J. (1992). Normativity, Argumentation, and An Epistemic Theory of Fallacies. in F. H. van Eemeren, R. Grootendorst, J. A. Blair and C. A. Willard (eds.), *Argumentation Illuminated*, SICSAT, Amsterdam, p. 81-103.
- Siegel, H., & Biro, J. (1997). Epistemic normativity, argumentation, and fallacies. *Argumentation* 11:277-292.
- Siegel, H and Biro, J. (2008). Rationality, Reasonableness, and Critical Rationalism: Problems with the Pragma-dialectical View. *Argumentation* 22:191-203
- Toulmin, S.E. (1958). *The Uses of Argument*. Cambridge, England. Cambridge University Press. (Paperback edition, 1995)
- Walton, D., & Godden, D.M. (2007). Redefining knowledge in a way suitable for argumentation theory. In H.V. Hansen, et. al. (Eds.), *Dissensus and the Search for Common Ground*, CD-ROM (pp. 1-13). Windsor, ON: OSSA.