David Hitchcock and Bart Verheij (eds.), *Arguing on the Toulmin Model: New Essays in Argument Analysis and Evaluation*, New York: Springer, Argumentation Library, Vol. 10, 2006, 439pp., ISBN-10 1-4020-4937-4 (HB), ISBN-10 1-4020-4938-2 (e-book), $219.

Juho Ritola
Department of Behavioural Sciences and Philosophy,
University of Turku, Turku, Finland, juho.ritola@utu.fi

1. Introduction

This fine collection of articles is based on responses to calls for papers for a special issue of the journal *Argumentation* (19: 3, 2005) on 'The Toulmin model today' and the 2005 OSSA conference 'Uses of Argument' held in Windsor, Canada. As the editors Hitchcock and Verheij contend, it "attempts to bring together the best current reflection on the Toulmin model and its current appropriation."

The Toulmin model is a model for analyzing real-life argumentation, presented in a book called *The Uses of Argument*, published in 1958. In this book, Toulmin urged us to study real-life argumentation, *the practice of logic*. He argued that this study differs substantially from the formal study of logic and proposed we study real-life arguments based on the jurisprudential model of case-making. In order to understand arguments as case-making, he put forth a model for analyzing real-life arguments. In this model, arguments are seen as vehicles for rational justification of a *claim* (C) against a challenger. In order to justify a claim, the proponent of the argument presents premises, called the *data* (D). The data can be viewed as a response to a challenge the opponent may put forth, famously formulated as 'What have

you got to go on?' The challenge by the opponent need not, and often does not, end in a formulation of premises. For example, the opponent may ask for further elaboration of the data's inferential relevance to the claim. This move can be viewed as a response to the question "How do you get there?" The answer brings forth the proposition referred to as *warrant* (W). This is a claim of the form "Data such as D entitle one to draw conclusions, or make claims, such as C." Depending on the case, the nature of the evidence, and the nature of the reasoning, this move from data to claim may be preceded by a *qualifier* (Q), such as 'probably', 'necessarily' etc. Naturally, the questioning need not, and – again – often does not, stop there. Especially two further moves are emphasized. First, the opponent may challenge the warrant. If so, the proponent should defend the warrant by presenting a *backing* (B) that justifies the use of the warrant in general. Second, even if the opponent were to accept the warrant in general, s/he may question whether there are any *rebuttals* (R) that devalue the force of the inference *in this case*. The following diagrams this use of argument:
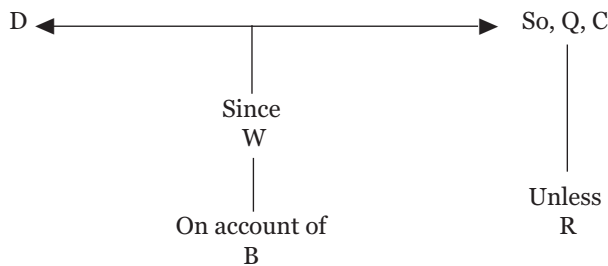

Fig. 1: The Toulmin Model.

This model of argument was supposed to be a general frame to which any use of argument in the process of rational justification was to be fitted, and it became a popular tool for analyzing arguments. But this format of analysis in itself was not what made the biggest waves. As the editors of "Arguing on the Toulmin Model" stress, Toulmin emphasized a number of theses:

1. Reasoning and argument involve not only support for points of view, but also attack against them.
2. Reasoning can have qualified conclusions.
3. There are other good types of argument than those of standard formal logic.
4. Unstated assumptions linking premises to a conclusion are better thought of as inference licenses than as implicit premises.
5. Standards of reasoning can be field-dependent, and can be themselves the subject of argumentation. (p. 3)[1]

Theses three and five met the largest opposition. In addition, Toulmin's treatment of qualifiers, of 'probably' in particular, was not greeted with enthusiasm. (See e.g. *Fundamentals of Argumentation Theory*, van Eemeren et. al (eds.), ch. 5, fn. 3. for references to this literature). The relinquishing of the deductive standard, the difficult term of 'field-dependence', its relation to the aforementioned (field-independent) model of analysis, and the perceived relativistic implications of the field-dependence drew wide criticism. Though the majority of philosophers remained critical of Toulmin, his approach became influential in other disciplines, especially communication studies, and these areas took its lessons to heart and put the model, and its guiding principles, to good use. Since 1958, developments in epistemology and logic have also made philosophers more receptive to Toulmin's ideas. By the beginning of the new century, the time had come to reassess Toulmin's value and influence to studies of argument and argumentation from a variety of perspectives. It is this worthy cause that the current title serves through providing a selection of interesting, well-written papers on topics at the core of argumentation theory.

2. Articles

Given the amount of articles (twenty-four plus the introduction), it is not possible to discuss all of them at length here. Instead, I will briefly intro-

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[1] Unless otherwise indicated, page numbers refer to the book reviewed.

duce the articles, present some of their central arguments, provide comments on some, and then end with general notes and a question.

After an informative introduction, where the editors present the main arguments of the articles, there is a short article by Toulmin himself. In it, he notes some of his own influences and salutes the open-ended process nature of the scholarship we are involved with here. The second article by Ronald P. Loui examines the citation counts and reports a fact that may surprise some philosophers: Toulmin is among the top ten of most cited 20th century philosophers of science and logicians.

The editors divide the material of the book into themes that are discussed with varying weights. Many of these themes overlap, and related questions are discussed in different sections, but the division helps the reader to discern the abundant material contained the book. We will now turn to them.

The specter of relativism

Toulmin's rejection of the deductive ideal and the thesis that the cogency of an argument may vary from field to field were widely criticized in the literature. So, the first theme in the book is understandably the issue of relativism in Toulmin's work: if accepting Toulmin's model implied accepting relativism, many, the present writer included, would reject the Toulmin model. In this book, the issue is treated by G. Thomas Goodnight's "Complex Cases and Legitimation: Extending the Toulmin Model to Deliberative Argument in Controversy", Mark Weinstein's "A Metamathematical Extension of the Toulmin Agenda", Lilian Bermejo-Luque's 'Toulmin's Model of Argument and the Question of Relativism", and James B. Freeman's "Systematizing Toulmin's Warrants: An Epistemic Approach".

These papers argue that relativism need not follow from accepting a Toulminian framework of study. Goodnight argues that even though we accept that arguments may belong to different fields, relativism need not follow. He studies complex cases of public deliberation where there are competing grounds (that form what we may call fields) for justifying a given action, where these grounds do not have equal weights and do not point to the same action. To avoid relativism, one would have to uphold that the use of various grounds is still rational in some non-relativistic sense. Goodnight

does this by requiring that the selection of grounds must be justified, and this forms a part of the justification of the warrant for the action. Goodnight argues that we should extend the Toulmin model to include such second-order justification by "legitimation inferences" and discusses this in the context of risk-taking in a most illuminating way.

An important issue in the charge of relativism raised against Toulmin is that of a foundation: if we reject mathematical logic as providing the ultimate foundation for the cogency of argumentation, what is to put in its place? Weinstein argues that despite the rejection of deductive logic, there is an important role for metamathematics in the normative foundation of argument. This role is a metamathematical account of truth and entailment based on physical science instead of arithmetic. He then provides such an account.

Bermejo-Luque's article aims to show that epistemological relativism is not a necessary consequence of Toulmin's model, especially of the concept of 'field-dependency'. The paper is quite interesting but difficult to follow at times. Her approach certainly cannot be blamed to be exegetical, for she notes that in the attempt to avoid relativism her "[...] point is just to show that fields do not actually provide standards to determine the "way we actually assess the soundness, strength and conclusiveness of arguments"" (p. 74). This seems reasonable as she later on proposes to conceive Toulmin's warrants as "as the corresponding material conditional, which is to be valued under the argumentative conditions in which it arises" (p. 79). However, she also argues that

> [...] to assign a given argument to a certain field would make possible its appraisal according to the truth-values that the audience normally addressed in that field attributes to its reason and warrant. (p. 82)

Later, she notes that

> [t]his assumption does not imply that the field provides standards for appraising the argument; it only means that the matters that constitute the field are the subject matter of the argument. If we do not assign the argument to any field, or if the very field is in question (for example, if we disregard its attribution of truth-values), we will have to determine the truth-values of the propositions involved independently of the field.

> In this case, we would only lack a given assignment of truth-values, not standards to appraise the argument. (p. 82)

In the first quote, the field (and the audience) seems to play an important role in the appraisal, but in the second quote its importance is denied. Normally, however, the lack of truth values is a real problem for appraising the epistemic value of arguments. On the one hand, the impression that the field *provides* the truth-values is given, but on the other hand, it is also suggested that we are able to determine them without the field. Alas, how do we determine the truth values if we do lack them?

Another problematic aspect is that on p. 80 she asks

> [w]hy do we need justification for our inferences? The obvious answer is that we need it in case they are challenged, and this answer is perfectly sound. By contrast, the idea that good arguments need justified inferences is a holdover from deductivism.

And later on that same page she states:

> Yet, the truth is that, in order to justify our claims, we do not need our inference claims to be necessary, or justified. We just need them to be true, or highly plausible. The inference claim enables us to pass from reason to claim; if it is true, or highly plausible, the claim will be justified because of the reason. Second-level justification may be desirable in certain cases, but it does not prevent us from falsity. (Ibid.)

In the first quote, it appears that deductivism and epistemological internalism[2] (called 'second-level justification') are somehow taken to go together (although they do not) and then rejected. Moreover, it appears that epistemological externalism – the remaining choice, given the rejection of internalism – is clearly not acceptable, since it is required that we need to

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[2] Epistemological internalism is the doctrine that whether an epistemic agent is justified in believing, for example, the result of an inference, supervenes on factors one is in a position to know by reflection alone. A stronger form on internalism, called *access internalism*, holds that one has some special access to the justifying features. See e.g. James Pryor (2001) for discussion

be able to defend the claims we make. This implies a very strong form of internalism. Whichever position one ends up taking, one cannot at the same time hold that we need justification for our inferences and that it is just 'desirable'. Regardless, her final position in the conclusion seems reasonable:

> In any case, if we agree that the value of an argument is a function of the value of its reason and warrant, it seems difficult to find room for relativism: our assignments of truth-values to the corresponding propositions can only be justified by further arguments. Indeed, whatever the field, it is both our duty and our inclination as rational beings to do so. (p. 84)

However, this seems to invite the infinite regress of justification: since any assignment of truth-values must be justified by a further argument, the assignment of truth-values to this further argument also needs to be justified by yet another argument, and so on.[3] But more importantly, the mere fact that one justifies an assignment with an argument does not rule out relativism. A relativist can accept that there is justification, but hold that justification differs radically from what we standardly mean by it. It, for example, pertains only to a certain field. Bermejo-Luque seems to bypass the accusation of relativism, rather than answer it.

Freeman's article presents a systematic division of Toulmin warrants into four classes: *a priori*, empirical, institutional, and evaluative. Freeman takes warrants to be generalizations of the argument's associated conditional. The division is based on the way the warrants can be intuited, i.e. how we can ascertain their reliability. As Freeman (p. 98) notes, this seems to capture the insight of Toulmin's field-dependency without the difficult notion of field (or logical type, for that matter).

Warrants

The issue of Toulmin's perceived relativism cannot be fully treated without discussing warrants, and many of the articles in this title turn on their na-

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[3] Such a position is possible; Peter Klein (e.g. 1998, 1999) proposes it under the name of infinitism.

ture. The discussion started by the previous articles is continued in James F. Klumpp's "Warranting Arguments, the Virtue of Verb" and Robert C. Pinto's "Evaluating Inferences: The Nature and Role of Warrants".

Klumpp starts from what he takes to be an inherent tension in Toulmin's work: Toulmin presented the elements of an argument (data, warrant, backing, claim, qualifier, and the rebuttal) on the one hand, from the perspective of labeling the respective parts as statements. These are typically taken to express propositions. On the other hand, he presented them from the functional perspective of describing how claims are established. Klumpp argues that Toulmin's reconceptualization of argument

> […] reaches its full potential to move from an idealized to a working logic when the requirement to cast arguments into propositions is also left behind and the layout deployed as a method of portraying the underlying movement of reasoning. Thus, presenting the key term of the layout—the warrant—as a verb, the part of speech capturing movement, best actualizes the working logic. (p. 104)

Klumpp then goes through seven different characterizations of warrants and argues that, ultimately, the approach of understanding warrant as a verb, through the activity of warranting, provides pedagogically the best way to separate warrants from data. He reports that students immediately grasp new ways to approach the entitlement provided by the warrant and understand the procedural nature of real-life argumentation. While I am highly sympathetic to these concerns, and would also stress the fact that understanding different functions of arguments paves the way for better understanding of argument and its value to us, I do not see how this alters the fact that warrants *can* be expressed as propositions. It is the truth/justification/rational acceptability of these propositions, given the backings we have, that we try to assess.

In his article, Pinto views warrants as material inference rules and offers an over-arching theory of good arguments, based on the ideas that good arguments are *entitlement-preserving*, and that they legitimate the claims in proportion to the evidence provided by the argument. Pinto's approach builds on David Hitchcock's work and develops the idea that warrants are

covering generalizations by examining the epistemic virtues which the properly contextualized tokens of such generalizations should have. Pinto's claim that good arguments provide licenses, in proportion to evidence, to take certain *doxastic attitudes* towards the proposition that expresses the conclusion is certainly something over which epistemologists interested in arguments and inferences should mull. The article is interesting and wide-reaching. Pinto separates reasonable entitlement from truth-preservation and creates a view of warrants that is epistemically explicable and context-dependent in what seems to be the right way. Argumentation theory is studying the actual uses of arguments, and wants to find ways to ascertain whether some specific uses of warrants were justified. It is only reasonable to assume that the warrants, then, should be specified from the proponent's perspective. The fact that Pinto introduces the purposes the activity of arguing is meant to serve, and the doxastic attitude the argumentation is after, enables him to connect the truth-preservation objective quite nicely to his more general account of what it means to say that an argument gives one entitlement to believe its conclusion. The following quote captures a lot of what he is after:

> [...] the reliability of an inferential practice — for example, of expecting a Courtland [apple] to be sweet when we know that its skin exhibits a certain color pattern – will depend on an objective likelihood. But the objective likelihood on which it depends *will not be identical with the objective likelihood that a Courtland is sweet given that its skin exhibits a certain color pattern*. Rather it will be the objective likelihood of (i) arriving at an *appropriate doxastic attitude* when (ii) relying on the practice *in the typical circumstances in which it has been or will be relied upon*.

In my opinion, Pinto (p. 143) also correctly identifies what issues his account should address in the future: the relation of occasional warrants that arguers use to standing warrants of fields (in whichever way the field is to be interpreted), the ways warrants should be scrutinized, and the examination of when the output of an objective reliable inferential practice is subjectively justified.

Qualifiers

The third theme of the book is qualifiers, consisting solely of Robert H. Ennis'
paper "Probably". The editors of this title note that this paper is, as Pinto's,
one to arouse us from our dogmatic slumbers, and I agree. Ennis defends
Toulmin's speech act theoretic interpretation of 'probably'. This is Toulmin's
famous position that

> When I say 'S is probably P', I commit myself guardedly, tentatively, or
> with reservations to the view that S is P, and (likewise guardedly), lend
> my authority to that view. (Toulmin 1964: 53)

Ennis argues that an implication of this view is that one may not convert
the term 'probably' into a number or a range or distribution so that math-
ematical means can be used to decide whether the argument using that term
is good (p. 146). The standard challenge to this view comes from John Searle.
In *Speech Acts*, section 6.2, called 'The Speech Act Fallacy', he argued that

> [t]he general nature of the speech act fallacy can be stated as follows,
> using "good" as our example. *Calling* something good is characteristi-
> cally praising or commending or recommending it, etc. But it is a fallacy
> to infer from this that the meaning of "good" is explained by saying it is
> used to perform the act of commendation. (Searle 1969: 139)

Searle (1969: 137) identifies Toulmin's conception of 'probably' as one
example of this fallacy. Searle's point seems unavoidable. Still, his argu-
ment does not imply that *no* use of the *word* 'probably' can ever be fully
explained through speech acts. This might be so when we have *further* rea-
sons to believe, such as the ones Ennis provides that some uses should be
explained speech act theoretically, and we at the same time hold that the
whole meaning of all the uses of the term is not explained through speech
acts. Ennis' reasons are that his interpretation is plausible, and that it sur-
vives certain tests better than the standard accounts of probability. I leave
the evaluation of Ennis' thought-provoking arguments to the reader. How-
ever, I would like to draw attention to the following question posed by John
Woods:

> Any probability theorist who knows his onions will be aware that, after Pascal, probability *changed*. This presents us with a fundamental question: When something is a new conception of something, does it extinguish its predecessor-concept, or does it foster a new ambiguity which leaves the old concept standing? (p. 394)

When Pascal changed 'probability', did he change the way competent English speaker use the word 'probably' in their argumentation? The fact that Pascal effected a conceptual change, i.e. that we now had mathematical means to treat the concept of 'probability' does not imply that the way ordinary language users use that concept changed. If it did not change, it is questionable whether we are entitled to expect that the ordinary language use should be interpreted through the mathematical theory, *although* the full meaning of 'probably' no longer is 'guarded commitment'. In my view, the case for the speech-act theoretic treatment of 'probably' in every day use seems stronger than the case for a similar treatment of 'good'.

Rebuttals

The fourth theme of the book is rebuttals. Its treatment consists of Wouter Slob's "The Voice of the Other: A Dialogico-Rhetorical Understanding of Opponent and Toulmin's Rebuttal" and Bart Verheij's "Evaluating Arguments Based on Toulmin Scheme".

Slob argues that the role of the rebuttal has not been sufficiently appreciated and contends that Toulmin's notion of rebuttal allows one to include counterconsiderations, the voice of the other.

> This suggestion puts the understanding of what an argument is in a different light. Rather than giving support for the claim, argumentative interchange is now seen as determining the relative weight of the conclusion, for which not only supporting but also rebutting forces are important. This implies that any conclusion is always, just as Freeman maintains, a qualified conclusion, but in contrast to Freeman, it can also involve the qualification becoming negative. The range is from 'certainly', via 'possibly', to 'unlikely' or 'certainly not'. (pp. 169-170)

Slob thus contrasts his account to the dialectical account of Freeman (1991) and argues that his dialogical rhetoric produces a picture that is not possible on a dialectical understanding of argumentation. I think Slob reasonably emphasizes the importance of rebuttals: our understanding of the process of argumentation, and the accrued justification/rational acceptability, is enhanced, if we properly appreciate the role rebuttals play. But from a normative point of view, the complexities of the process of argumentation should project on some end-product, the argument, which we seek to evaluate. Slob, however, contends that

> dialectical approach is primarily focused upon the product of argumentation: only a clear-cut and orderly argument can be judged properly. Dialogical rhetoric, by contrast, follows the argumentative process and sees arguments as interchanges of supporting and rebutting forces. In my proposal, argument analysis does not serve evaluation, but serves the mapping of established reasons. Evaluation is no longer at stake in argument analysis, because a reason is only established when both discussants have in fact accepted it and thus have evaluated it positively. The map of established reasons forms a vector that leads up to the conclusion. Data form the basic ingredient, warrant forms the positive force of the argument and the rebuttal the negative counterpart. Argument analysis shows these two forces and display their relative contribution to the conclusion. (p. 180)

The importance of understanding the force of rebuttals is exactly the impact they make on the eventual evaluation. The results may not always be clear-cut and orderly, but at least they are there to improve our understanding of a complex situation. Yet, Slob explicitly denies the connection between analysis and evaluation. Still, the analysis *is supposed* to show how these forces are relevant to the conclusion. This is all the more difficult to understand as Slob, later on the same page, writes:

> What is important is to map the established reasons and both participants are committed to these. In this way, a suitable conclusion is reached that both participants not only should, but will, accept. (Ibid.)

Again, if the analysis does not serve evaluation, how can this analysis help us understand what the participants *should* accept?

Bart Verheij extends the Toulmin model by presenting a formal reconstruction of it and developing the concept of rebuttal, the defeating of some part of Toulmin's scheme, and how such parts can be reinstated. It builds on Verheij's earlier work, and the work of others, on defeasible reasoning and dialectical logic. As Verheij (p. 183) notes, it shows that Toulmin central ideas can be described formally with modern formal logic.

Evaluation

The fifth theme of the book is evaluation. Its treatment the book consists of David Hitchcock's article "Good Reasoning on the Toulmin Model". It attends to the fact that Toulmin did not elaborate very much on how to evaluate arguments under his scheme. Although Toulmin did write a textbook with Rieke and Janik (1979) on reasoning, his views were not very specific. Hitchcock wants to correct this by proposing criteria for reasoning to a belief as part of a process of inquiry. Hence, he also extends the model for Toulmin set inquiry aside from his original treatment. Hitchcock argues that reasoning to a belief is good if and only if 1) the grounds are adequate, 2) the warrant is justified, and 3) the reasoner is justified in assuming that no defeaters apply. He then goes on to elaborate on each of these. He, for example, discusses the conditions of how and when would a direct observation be justifying on the basis of considerable empirical research.

Hitchcock (p. 216) emphasizes that the third condition does not mean that the agent should have a proof that no defeaters apply, because that would require too much from any individual agent. We should only require that the assumption is justified. This justification may depend on institutional factors. Alternatively, when there are no institutional requirements, the justification can depend on the fact that one does not know of any defeaters, on the possible consequences of being wrong, and on the fact that one's pragmatically justified search has not produced the result that some defeater is in force. This third condition seems to point to some kind of

deontological, duty-based, conception of justification. Such a conception has an internalistic component: the talk of epistemic obligations seems to imply that one has some control over one's beliefs and this is clearly internal to the epistemic agent. Hitchcock, however, has rejected internalistic requirements on data and warrants in class[4], so the third condition, if upheld, might require him to rework his position on this issue.

Practical reasoning

The sixth theme is practical reasoning. The articles under this theme are Olaf Tans' "The Fluidity of Warrants: Using the Toulmin Model to Analyse Practical Discourse", Henry Prakken's "Artificial Intelligence and Law, Logic and Argument Schemes", Christian Kock's "Multiple Warrants in Practical Reasoning", and Txetxu Ausín's "The Quest for Rationalism without Dogmas in Leibniz and Toulmin".

Tans shows how the basic scheme of Toulmin is too limited in application to the complexities of practical reasoning. He then extends the model so that it can accommodate to the fact that warrants develop through a dialectical process, i.e. that they are 'fluid', and applies this to a case of legal reasoning by the US Supreme Court.

Prakken concentrates on the use of argument schemes and their use in research on Artificial Intelligence and Law. He provides a clear introduction into defeasible reasoning in this context. He ends with a brief discussion on how this research has taken note of some of Toulmin's central ideas: the different roles of premises, the defeasibility of everyday argumentation, and field-dependency, understood as argument schemes that have different backings that are to be evaluated differently. He also points out that these schemes can be represented in nonmonotonic logic.

Kock starts from the observation that while Toulmin distinguished many kinds of warrants, he had only one for practical reasoning: the motivational warrant. He therefore proposes to augment the situation by turning to the rhetorical tradition. This tradition provides a useful typology that can be

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[4] In the concluding session of University of Windsor 2009 Summer Institute titled "Current Issues in Argumentation Theory".

used in assessing practical reasoning and promises to increase our understanding of practical reasoning. Kock (p. 258) approvingly emphasizes that this tradition is committed to 'multidimensionality', i.e. the idea that practical reasoning is characterized by multiple kinds of warrants that cannot be weighed against each other on any common measure or single dimension. He notes that moral philosophers have called this 'incommensurability' of warrants and argues that the ancient rhetoricians knew that decisions cannot be founded on a merely rational basis (ibid.)

This is an interesting challenge for one is eager to find out what exactly are the non-rational elements that we should add to the justification of an action, given incommensurability. Kock (ibid.) argues that this is why rhetoric is needed, but this as such does not provide much elaboration. Kock defines rhetoric as the totality of resources at the disposal of arguers who wish to increase adherence to their standpoint in debates where the choices are optional. This 'optionality' means that in deciding what to do, there are many courses for which the individual agents may legitimately opt. These resources include, among other things, arguing that a given option is just, lawful, expedient, honorable, pleasant, and easy to accomplish. But these do not seem non-rational bases for arguments.

The unavoidable property of optionality in practical reasoning, Kock argues, implies that "philosophy ends here, because philosophy is, in its very nature, about finding solutions that hold with equal validity for all" (ibid.). We might try to reconstruct Kock's reasoning as:

1. Some cases of practical reasoning exhibit optionality (i.e. the incommensurability of justifications for different actions).
2. Philosophy is about finding solutions that hold with equal validity for all.
3. Therefore, philosophy does not involve the study of practical reasoning in cases that exhibit optionality.

But this argument exhibits fallacious reasoning about parts and wholes. The fact that philosophy studies the general conditions and nature of rationality does not imply that it is not able to study cases where some (or all) standards of rationality seem to fail. Also, premise two is not acceptable in its current formulation, because of its vagueness. What does it mean to say that a solution holds with equal validity to all? If a solution to the mind-

body problem implies we recognize the existence of something specific only to mind, does this mean that philosophy is not able to study the mind-body problem? Taken strictly, premise three implies that philosophy can only study ontology, given that there is only one substance. We could try to re-work the second premise:

2* Philosophical study of practical reasoning involves the finding of solutions that hold with equal validity for all cases of practical reasoning.

But this argument is not sound. Premise 2* is false for the reason already explained. Philosophical study may well argue that, for example, inquiry has some property P that no other forms of reasoning have and go on to study that property. I will not try to argue for the conclusion that philosophical study of practical reasoning involves also the study of cases that exhibit optionality, and the nature of 'optionality', here. I conjecture that the correct answer is the same as why philosophy studies anything it studies, but this is beyond this review. We should also note that the following reasoning is not valid:

1. Some cases of practical reasoning exhibit optionality (i.e. the incommensurability of justifications for different actions).
2. Therefore, these cases of practical reasoning cannot be decided on a merely rationalist basis.

Incommensurability of the relevant sets of premises does not imply that the *rational* thing to do when faced with it is to turn to non-rational elements. This is not to deny that there are no situations in which some standards of rationality do not yield a decision between options. But the previous argument does not establish its conclusion. Besides, one can often still weigh arguments, try to search for new backings for warrants, try to justify the selection of some grounds (as suggested in G. Thomas Goodnight's article discussed above) and so on. In short, the lack of *conclusive* answers does not imply the lack of *rational* answers. Kock (pp. 258-259) further suggests that the reason why philosophers might refuse to accept optionality is that it seems to leave them at a dead end. Leaving aside the fact that this *ad hominem* proves nothing about the nature of practical reasoning, I would

note that, in my experience, dead ends are what make philosophers tick. In fact, Jon Elster's (1989) book *Solomonic Judgements: Studies in the Limitations of Rationality* is one example of the studies Kock deems impossible.

Ausín provides an interesting introduction to Leibniz' thought on practical reasoning. We learn that when it came to justifying contingent judgments, Leibniz did not think we could make firm demonstrations. He viewed controversy and debate as basic modes of human interaction. Justice, for example, was not possible without prudence. Ausín (p. 267) summarizes Leibniz' method for weighing to include, among other things, rules of heuristic, considerations of the epistemic reliability of the premises, and taking into account analogies and comparisons. He (p. 272) concludes that Leibniz wanted to find a balance between formal models of rationality and the lessons of practice in social context. It is probably a surprise to many philosophers (and non-philosophers) to read Leibniz putting forth these claims for he is often perceived rather stereotypically as a rationalist in search of *Characteristica Universalis*.

Applications

The seventh theme is applications. This theme is covered by an impressive array of papers that apply the Toulmin model to different areas of argument analysis, argumentation, and decision-making with good results, given some extensions and developments of the model. I will only note their topics. The paper by John Fox and Sanjay Modgil "From Arguments to Decisions: Extending the Toulmin View" shows how the Toulmin model can be extended to medical decision-making. John Zeleznikow's paper "Using Toulmin Argumentation to Support Dispute Settlement in Discretionary Domains" uses the Toulmin model to develop a support system for decision-making in legal discretionary domains. James F. Voss' article "Toulmin's Model and the Solving of Ill-Structured Problems" finds the model useful, given certain extensions, in analyzing argumentation in ill-structured problems but, perhaps somewhat expectedly, lacking in information about the problem-solving itself. Manfred Kraus, in "Arguing by Question: A Toulminian Reading of Cicero's Account of Enthymeme", shows how the model can be useful in what is problematic in some enthymemes. Andrew Aberdein's "The Uses of

Argument in Mathematics" shows the model's applicability to arguments *about* (as opposed to *in*) mathematics.

Comparisons

The penultimate theme of the book is comparisons between the Toulmin model and other techniques for diagramming arguments. This theme consists of Chris Reed's and Glenn Rowe's "Translating Toulmin Diagrams: Theory Neutrality in Argument Representation" and Fabio Paglieri's and Cristiano Castelfranchi's "The Toulmin Test: Framing Argumentation within Belief Revision Theories".

Reed and Rowe compare two influential ways to diagram arguments. The first is the conventional "box-and-arrow" technique, attributable to Beardsley (1950), termed the standard treatment by the authors. It recognizes four kinds of support relationships between premises and conclusions, namely serial, linked, convergent, and divergent. The second is Toulmin's six-part model (i.e. data, warrant, claim, backing, qualifier, and rebuttal). The authors contend that the difference between the two is much more than just drawing pictures, because

> [b]oth systems embody many theoretical assumptions and conclusions, and work as a way of packaging up substantial theories into practical tools that are simple and easy to understand–and produce analyses that are the products of those background theories (p. 342)

Despite these considerable theoretical difficulties, the objective of the paper is to allow diagrams of one form of the theory to be translated into the other. Reed and Rowe present mechanisms showing that the translation from on to the other is indeed possible. In their conclusion they note that:

> The translation presented is consistent, deterministic and requires no user intervention. Information loss during translation is limited to those features that are only expressible in one theory or the other; such information is preserved in a deep structure and is recoverable. Such intertranslation makes possible a single piece of software that can sup-

port teaching, diagramming, storage and manipulation of argument structures in the two frameworks. But more than that, it offers a mechanism for interchange and reuse between communities. As an example, *Araucaria* has been used to develop a corpus of natural argument, comprising over 500 analysed extracts from a wide variety of sources in several languages from around the world. (pp. 357-358)

So, not only are the mechanisms translatable to each other, they are also translatable to a third mechanism. If the authors are correct, it is difficult to uphold the view that the theoretical differences involved in the two approaches about the *nature* of argument are deep and meaningful. Rather, this result seems to support the view that as long as we understand that we have premises, claims, many types of support relations (which have different reliability figures ranging from zero to one and different conditions of reliable use), and various ways to support, attack, and defend all these elements, theoretically it really does not make much of a difference which system of argument analysis you use, as long as your system can cope with these elements. This result also casts serious doubt on the contention of many authors contributing to this book that it is the Toulmin scheme in itself that allows them to effectively analyze various kinds of arguments, rebuttals, counter-considerations. To bring this suspicion to a head, we should ask whether, in analysis of real-life arguments and in theorizing about the nature of argument, a difference that makes no difference is a difference.

Paglieri and Castelfranchi compare the canonical Alchourrón-Gärdenfors-Makinson (AGM) belief revision theory with their own Data-oriented Belief Revision theory (DBR) by applying (what they call) a Toulmin test to both. This means that they try to represent Toulmin's lay-out of arguments within both these models. They conclude that AGM is not able to represent argumentation, because, first, it does not make any predictions or assumptions about how and why some propositions come to be believed and why some are held onto more steadfastly than others (p. 362). Second, AGM does not take into account other structural properties between beliefs than deducibility. The two points are obviously intimately connected. Paglieri and Castelfranchi (pp. 372-376) then further argue that the Toulmin model should be developed based on observations about the focusing of argumen-

tation to certain elements, depending on what is felt to be useful to the ar-
guer and on the embeddedness of the premises, i.e. how plausible some
statements are to the audience.

Paglieri and Castelfranchi address a very important topic: how to model
argumentation in belief revision. However, to reiterate the skepticism pre-
sented in connection of the article by Reed and Rowe, it does not seem likely
that these observations could have only been achieved through Toulmin's
thinking. (It should be noted that Paglieri and Castelfranchi make no such
claim; they (p. 361) propose to use the Toulmin model as a *litmus* test for
belief revision theories.) The problems the authors note are related to the
success postulate of AGM, which has received wide criticism in the litera-
ture on belief revision. According to this postulate, if new information comes
in, it must be incorporated into our belief set. This is obviously too simplis-
tic. If someone reports to me that a ghost was operating the copying ma-
chine of the philosophy department yesterday, I am prone not to accept this
information. The matter is obviously not simple, but we need not apply
Toulmin to grasp this. I am willing to accept some pieces of information
more easily than other pieces, and this might depend on how much I have
to discard in order to accommodate the new information, i.e. how many
beliefs depend on the acceptance or rejection, and how important these are.
Ghosts do not get in to my belief store easily, whereas ghost-like looking
persons operating the copying machine on the morning after the Christmas
Party might. The DBR-model wants to address such features of our reason-
ing and Toulmin's thinking certainly seems consistent with their line of think-
ing.

Reflecting on Toulmin

The final theme of the paper, reflection on Toulmin, is carried out by John
Woods' "Eight Theses Reflecting on Toulmin". Woods' discusses the cor-
rectness of validity as a standard of real-life-argument and argues it is nearly
always the wrong standard, the role of probability calculus in probabilistic
reasoning in real-life, our scant resources for arguing and inferring, the link
between theoretical progress and conceptual change, the cognitive aspects
of reasoning and arguing, ideal models for normativity, the can-do prin-

ciple (i.e. whether one should typically use existing cognitive tools to solve a problem or opt for new ones), and the value of domain-specific logics. His discussion encapsulates many aspects of his own bountiful scholarship and the general developments in philosophy, logic, empirical sciences pertaining to reasoning, and the relation of Woods' thought to Toulmin's. I will not try to synthesize any of that here, but strongly recommend that anyone interested in these topics read the article.

3. Final thoughts

The authors of the articles are established scholars in this field, and this collection is surely among the most interesting that the theory of argument offers at the moment. The editors have done a thorough job; for the most part, the papers are clearly written and enjoyable to read. Some of the papers lean rather heavily on the previous work of the authors, but where this is the case, the papers still manage to give an illuminating introduction to those topics. In any case, the book is directed to scholars. The included papers should not go unnoticed by other authors interested in the respective topics. They are of interest to anyone who wants to know what is going in the interdisciplinary study of argument. Toulmin's work was revolutionary at its time, and his theses are still important, connecting many developments in this area. As this book evidences, he has been a fruitful starting point for further research. Also, for a scholar with epistemic inclinations, this book makes for good reading, especially the articles by Freeman, Hitchcock, and Pinto, to name a few of the most prominent ones. These authors are putting forth explications that put some real flesh on the epistemic bone that good arguments should justify their conclusions. It will be interesting to see how these developments will be challenged, for example, by dialectical approaches.

If one were to look for complaints, one could note that the book does not give the reader much information about the criticism Toulmin received, nor does it include papers that are critical of Toulmin's work. On the basis of this book alone, it is difficult to examine the value of this criticism and whether, if there is a need, the developments in this book answer that criticism. But as noted, this is a scholarly book consisting of articles with spe-

cific topics, so the reader can be expected to read and evaluate this by her- or himself.

In the preface (p. vii) of the updated edition of *Uses of Argument*, Toulmin notes that his aim in writing the book was philosophical:

> to criticize the assumption, made by most Anglo-American academic philosophers, that any argument can be put in formal terms: not just as a *syllogism*, since for Aristotle himself any inference can be called a 'syllogism' or 'linking of statements', but a rigidly demonstrative deduction of the kind to be found in Euclidian geometry.

Nowadays, philosophers typically accept that there is good nondeductive reasoning and that the majority of good arguments do not resemble demonstrations of Euclidian Geometry. Given the assumption that Toulmin's model represents all those arguments that were not to be put in formal terms, we should point out that two authors of this title, Bart Verheij and Henry Prakken, claim that the Toulmin-styled arguments can be represented in formal logic. It is just that the logics in question may not be monotonic.

Finally, I might put forth one question not discussed in this book, which should be asked, despite its potency to lead to hopeless debates about where to draw the line. This concerns the abandonment of the deductive ideal, which I believe to be the correct move. I want to ask how far we should take this 'abandonment'. Deductive (monotonic) logic enjoys the status of the fall person in the book, and it is often equated with the 'geometrical model', which of course is more than the deductive logic-ideal. The latter contains a claim about the nature of the premises on top of the claim about the standard of good reasoning. The book contains no articles that defend the deductive ideal or present reasons why it would be reasonable to uphold that model at times. Only Ennis (p. 164) notes that formal logic is important "because of its role in appraising a stripped argument in the application of qualified soundness standards."

Clearly, there still is something to be said for the deductive ideal: it presents us with a clear model of evaluation that is applicable and reasonable in many cases. It is also a model that argumentation theorists themselves often use. Are argumentation theorists really willing to relinquish the de-

ductive ideal in the emphatic manner they do in this book in their own use of arguments? If not, why not? Are the deductive standards something that we are somehow able to use, but the poor lay person is not? (Whatever we might think, the truth of the matter is that we are not that smart). There are of course matters of scant resources and questions of urgency in real-life argumentation, but if defeasible argumentation really is the way to go, why is it still so common to see in scholarly arguments about argumentation an objection "but that just does not follow", where 'follow' is to be understood on the model of a deductive consequence? Rarely do theorists continue 'But of course, the conclusion of my dear opponent did not *need* to follow deductively from his or her premises, as Toulmin has ably shown. So, I therefore thought of it as a defeasible argument and came to the conclusion that is does give one good reason to believe the opposite of my original claim.' Instead, we drop the argument we have shown to be deductively invalid. I do not think I have heard of a theorist giving up his or her position on account of defeasible counterarguments to their position.

For example, above I discussed Bermejo-Luque's article, noting that she argues that epistemological relativism is not a *necessary* consequence of Toulmin's model of argumentation. Given Woods' (p. 379) thesis that deductive validity is nearly always the wrong evaluative standard; may we not reason that relativism does not have to be a necessary consequence of the Toulmin model for us to reject it? But, unsurprisingly perhaps, we do not take it as a sufficient reason to reject the Toulmin model that the notion of 'field' defeasibly supports, or perhaps coheres with, relativism. The counterargument to this purported suggestion is so obvious that we can all practically hear it coming: "Yes, but Woods thesis contained the terms 'nearly always', not 'always'. So it is not *necessarily* the wrong model here". And so on. So, I ask: just how prominent a role should defeasible, non-conclusive, arguments be given in our scholarly lives, given the fact that their evaluation almost unmistakably goes our way? Defeasible arguments that do not support our prior position tend be deemed 'not strong', whereas the one that support our prior views tend be deemed 'strong'. Don't we all actually believe that defeasibility is just fine when we reason about the color of the shirt we should wear today, but when push comes to shove and our own theoretical position is at stake, deductive logic is the way to go?

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