May 22nd, 9:00 AM - May 25th, 5:00 PM

Argumentation, decision and rationality

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ABSTRACT: From a decision theoretic perspective, arguments stem from decisions made by arguers. Despite some promising results, this approach remains underdeveloped in argumentation theories, mostly because it is assumed to be merely descriptive. This assumption is mistaken: considering arguments as the product of decisions brings into play various normative models of rational choice. The challenge is rather to reconcile strategic rationality with other normative constraints relevant for argumentation, such as inferential validity and dialectical appropriateness.

KEYWORDS: argumentation, context, decision, goals, rationality, strategic manoeuvring, theory of rational choice

1. INTRODUCTION

When we argue, we make several decisions, sometimes without even realizing it: we choose whether to enter the argument or not, what arguments to use and how to present them, how to react to the arguments of the counterpart, how to respond to challenges and objections, how to solve potential ambiguities, when and how to end the argument, and so forth. In fact, argumentation can be seen as the result of a complicated decision-making process, or, more exactly, as the interaction of multiple decision-making processes performed by autonomous agents.

In spite of its obvious relevance in everyday argumentation, decision-making has been taken for granted rather than explored in argumentation theories, with few exceptions (the work of Dale Hample and colleagues being one of the most notable cases; see Hample, 2005 for a review). This neglect originates from an insistence on what is the right move in a given argumentative situation, and not on how the subject may decide to opt (or not) for that move. It is not that argumentation theorists are unaware of argumentative decisions, of course – as arguers, if nothing else, they are bound to be familiar with those. They just do not see it as their business to produce a theory of such decisions.

This is certainly true for those approaches that concentrate mostly on argumentation as reasoning and arguments as valid inference schemes (these include, among others, Toulmin, 1958; Walton, 1996; Johnson, 2000, and most of the work done in informal logic). Whatever decisions prompted the subject to apply a certain reasoning pattern or inference scheme are typically beside the point in this

line of research, since what ultimately matters is the validity (or lack thereof) of the resulting argument. The fact that the concept of "validity" comes in many guises in argumentation theories, ranging from deductive validity to presumptive strength, does not change the perceived irrelevance of the decision-making process that produced a given argument, be it a silent piece of reasoning or an uttered statement.

The same is true for the degree of "dialecticity" (or "dialogicity", for those who consider this distinction relevant; see Walton & Godden, 2007) of a given approach: even if most theories make specific provisions to account for several dialectic features of argumentation, these are analyzed only insofar as they bear on the acceptability of the resulting argument. For instance, in commitment-based analyses of argumentation (Walton & Krabbe, 1995, being a case in point), what matters is what arguers can be reasonably held accountable for, regardless of what made them decide to incur such dialogical obligations (for further critical discussion on that project, see Paglieri, 2010). The virtues or vices of the end product do not depend on the underlying decision-making process, so theories focused on argument-as-product can safely ignore argumentative decisions. Even more crucially, insofar as argumentation is considered a form of reasoning, it is likely that whatever process is responsible for it, it is not a type of decision-making: after all, reasoning results in beliefs (possibly beliefs about what to do), and beliefs are often thought as being formed outside of the volitional control of the believer – what Woods aptly named "doxastic irresistibility" (2005, p. 755).[1]

According to a popular way of carving up the rich field of argumentation studies, argument-as-product approaches are complemented by theories of argumentation-as-process (Reed & Walton, 2003; a similar distinction with different labels is found in O'Keefe, 1977, and Habermas, 1984, among others). It would seem natural for the latter to provide an in-depth analysis of argumentative decisions: seen as an activity, argumentation clearly includes and even requires a series of decisions on what argumentative moves to make in the course of dialogical interchange. However, theories of argumentation-as-process merely countenance but do not explain argumentative decisions, since their main focus is typically normative rather than descriptive. An obvious example is pragma-dialectics (for the most recent version, see van Eemeren & Grootendorst, 2004): a critical discussion is defined as a purposive activity aimed at solving a difference of opinion, where arguers are free to decide on their moves within the boundaries of rational rules and shared standpoints, each of them striving to strike a balance between effectiveness and reasonableness (strategic maneuvering; see van Eemeren & Houtlosser, 2002, 2006). However, pragma-dialecticians are interested to identify the structure and rules that arguers ought to follow to be rational, not to discuss what motivates their decisions between rationally acceptable options – aside from a generic commitment to effectiveness in strategic maneuvering. As a result, the factors affecting the arguers' decisions in a critical discussion are left mostly in the

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[1] The opposite view, doxastic voluntarism, has its fair share of defenders (e.g. Steup, 2000; Wansing, 2000, 2002, 2006; Ginet, 2001; Ryan, 2003), but is by far a minority position in the epistemology of belief – and rightly so, in my view.

background, whereas full prominence is given to the dialectical obligations they incur by making such decisions.

In contrast with this traditional lack of scholarly interest for argumentative decisions, recent studies have proposed to analyze argumentation as a decision-making process, both theoretically (Paglieri, 2009, in press; Paglieri & Castelfranchi, 2010a) and experimentally (Cionea et al., 2011; Hample et al., 2011). In what follows I will first recap the main results of this line of research, and then address a criticism that is likely to be raised against it: namely, the alleged *lack of normative concerns* expressed by a decision-theoretic approach to argumentation. I will claim that this criticism is ultimately misguided, since looking at arguments as decisional processes does not entail abandoning a normative perspective, in favour of a merely descriptive approach. On the contrary, it raises a host of new normative questions, regarding the interplay between inferential validity, dialectical appropriateness, and strategic rationality.

2. SOME RESULTS ON ARGUMENTATIVE DECISIONS

In presenting a typology of argumentative decisions, it is useful to follow the typical chronological order in which the arguer has to face these decisions. This criterion is by no means the only possible one, and the resulting taxonomy is not necessarily intended to be exhaustive. But it does provide a convenient starting point, both by giving some order to the discussion, and by helping to better illustrate what an argumentative decision looks like "in real life". In light of these considerations, what follows is meant as a first, tentative process-based taxonomy of argumentative decisions (discussed in greater detail elsewhere; see Paglieri, 2009, in press):[2]

(I) *Argument engagement*: the decision to enter an argument or not, either by proposing one or by accepting to be drawn into one by the counterpart. Considering engagement as a decision implies acknowledging that arguing is not always the best option, and sometimes it is actually the worst (Martin & Scheerhorn, 1985; Hample & Benoit, 1999; Cohen, 2005; Goodwin, 2005, 2007; Paglieri, 2009). More generally, the strategic considerations that are relevant in choosing whether to argue or not are best understood in terms of costs and benefits, as exemplified by various contributions in Artificial Intelligence (Amgoud & Maudet, 2002; Karunatillake &

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[2] In this taxonomy, and more generally throughout the paper, the word "argument" is used with two different meanings: "argument" as a prolonged dialogical exchange between two or more parties, possibly (but not necessarily) of an adversarial and controversial nature, and "argument" as a series of premises in support of a certain conclusion, typically advanced by a single speaker. Both meanings are standard and non-technical, so I see no reason to introduce any specific notation to distinguish when the word "argument" is used to refer to one or another: the context will suffice to allow proper disambiguation. Quite clearly, for instance, the decision to enter or terminate an argument refers to the first meaning (roughly, it means initiating or concluding an argumentative discussion with another party), whereas deciding what arguments to use in a discussion manifestly refers to the second meaning (to wit, choosing what premises to offer in support of one's position).

Jennings, 2005; Riveret et al., 2008; Rahwan & Larson, 2009; Paglieri & Castelfranchi, 2010a).[3]

(II) *Argument editing*: all decisions concerning what arguments to use (selection) and how to present them to the audience (presentation), in order to maximize their intended effects (Hample & Dallinger, 1990, 1992; Hample, 2005; Hample et al., 2009). These argumentative decisions also have obvious relevance in rhetoric, and in fact the five canons of Western classical rhetoric (*inventio*, *dispositio*, *elocutio*, *memoria*, *pronuntiatio*) can be seen as a practical way of carving up different sub-decisions concerning effective argument presentation.

(III) *Argument timing*: the decision on when it is time to speak and when it is time to listen. An appropriate timing of one's argumentative contribution and an awareness about the optimal length of one's speech are essential elements for making an effective argument in almost every dialogical context, including one-way presentations in front of an audience.

(IV) *Argument interpretation*: if there are ambiguities in what the counterpart is saying, the decision on whether to criticize them, ask for more clarity or additional information, or solve them autonomously – and if so, favouring what interpretation, on what grounds, and to what ends? A well-studied case of argument interpretation concerns enthymemes, but most theories of enthymemes focus on what is the normatively correct/legitimate reconstruction of the argument. To highlight the arguer's underlying decisions, pragmatic approaches such as relevance theory (Sperber & Wilson, 1986; Wilson & Sperber, 2002) are more useful (for additional details on this point, see Paglieri, 2007; Paglieri & Woods, 2011a, b).

(V) *Argument reaction*: decisions concerning whether to accept or challenge an argument, an objection, or a counter-argument raised by the counterpart. This is another area that has been so far dominated by normative concerns: the widely received wisdom in argumentation theories is that arguments should be challenged and critical questions should be asked, whenever appropriate, but there has been little consideration on what reasons (other than being right) might guide this choice (see Gilbert, 1997, for some in-depth discussion of these issues, as well as a critique of the enduring lack of attention they suffered in argumentation theories).

(VI) *Argument termination*: the decision on when and how to end an ongoing argument. Clearly the arguer cannot unilaterally "decide" to win the argument (or to reach whatever goal s/he pursued by arguing), since, for this to happen, the agreement of the counterpart and/or the satisfaction of some objective criteria are required. But each arguer can and do decide whether to let the other win by

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[3] Costs and benefits are crucial also in relevance theory (Sperber & Wilson, 1986; Wilson & Sperber, 2002), but with several important differences with respect to the decision-theoretic approach outlined in this paper. The point is discussed at some length elsewhere (Paglieri, in press), hence I will not dwell further on it here.

conceding the point, or shelve/postpone the argument, or move on to other matters, or some other way of terminating the argumentative exchange for the time being (for some preliminary findings on this point, see Benoit & Benoit, 1987, 1990; Vuchinich, 1990; Hicks, 1991; Hample et al., 1999).

In spite of the preliminary nature of this taxonomy, there are already some empirical evidence of its usefulness, in particular concerning argument engagement and argument editing. On argument engagement, it has been empirically verified that the intention to participate in an argumentative episode is predicted more effectively by strategic considerations, in interaction with social context (Cionea et al., 2011; Hample et al., 2011), than by personality traits, such as argumentativeness and verbal aggressiveness (Infante & Rancer, 1982; Infante & Wigley, 1986). On argument editing, several studies have shown that the choice of what arguments to use and how to present them is finely tuned to the specific goals of the arguers in a given context of interaction, rather than descending from their overall character dispositions (Hample & Dallinger, 1990, 1992; Hample, 2005; Hample et al., 2009).

These results encourage further efforts at empirical verification of predictions based on a decision-theoretic approach to argumentation. For instance, it has recently been proposed (Paglieri, in press) that argument termination is modulated by length of interaction, and in particular that arguers increase their propensity to stop arguing as a function of how much time they already spent doing so. Appropriate experimental manipulations would allow not only to verify or falsify this general prediction, but also to establish what factors determine such propensity to "keep it brief": an increase in the costs of the argument ("Enough, I am tired of wasting time with you!"), a higher likelihood of undesirable side-effects ("Let's argue no more, lest we end up fighting!"), a stronger scepticism on the possibility of reaching a satisfactory conclusion ("If we haven't agreed so far, why keep arguing any longer?"), or some combinations of the above. It is not hard to imagine suitable methods to test such hypotheses, as well as others of the same nature – provided we accept to look at arguments (also) as decision-making processes.

3. STRATEGIC RATIONALITY, INFERENTIAL VALIDITY, AND DIALECTICAL APPROPRIATENESS

Regardless of the promising empirical results summarized in the previous section, argumentative decisions may still be regarded as alien to the objectives and methods of argumentation theories. Even granting that such decisions are a worthy object of study, it does not follow that the task of studying them should be appointed to argumentation scholars. Indeed, precisely because argumentation theories are eminently normative (they deal with how a rational agent *ought* to argue) and not descriptive (they do not care much for how real agents in fact argue, except to look for deviations from normative standards), it is debatable that they should pay special attention to purely empirical facts, such as the choices that lead people to argue in a certain manner.

In answering this objection, one can either negate that argumentation theories should confine themselves to normative concerns, or prove that the study

of argumentative decisions is not confined to a merely descriptive level. Whereas I confess deep misgivings on a purely normative view of argumentation theories,[4] this is not a point that I want to press here, because I see the issue as being mostly "political": that is, it is a matter of establishing the proper object of analysis of argumentation theories, and this is bound to require a wide consensus and thus engender vibrant debate. For the purpose of this paper, it is both easier and more interesting to demonstrate the flaw in the second premise of this criticism, to wit, the idea that normative concerns are excluded from the study of argumentative decisions. Nothing could be further from the truth.

In fact, as soon as we look at argumentative process as decision-making processes, we are able to make use of several well developed theories of rational choice, such as expected utility maximization, satisficing procedures *a la* Simon, prospect theory, ecological heuristics, and many more. Each of these normative theories can be applied to argumentative decisions without much tinkering, thus producing clear intuitions on what should count as a *rational* argumentative choice, and from what general normative principles this judgement is derived. Moreover, if emphasis is to be given to strategic interaction between arguers, it is straightforward to adopt several well-tested tools for the analysis of decision-making in social contexts, such as game theory (for instances of this approach, see Paglieri & Castelfranchi, 2005; Riveret et al., 2008; Rahwan e Larson, 2009). Nor it is problematic to adapt the analysis to more realistic scenarios, by using models of bounded rationality to study argumentative decisions: a possibility already advocated by scholars who insist on the importance of studying argumentation with an eye to the cognitive boundaries of arguers (e.g., Wilson & Sperber, 2002; Gabbay & Woods, 2003; Paglieri, 2009; Paglieri & Castelfranchi, 2010a, b; Paglieri & Woods, 2011a). In sum, far from relinquishing normative concerns in the study of argumentation, a decision-theoretic perspective on argumentative processes offers for free many powerful tools for defining and assessing the rationality (or lack thereof) of arguers.

Clearly, here we are referring to *strategic rationality*, that is, what is rational to do, given a certain set of preferences, beliefs, and current external conditions. Admittedly, this is very different from the kind of rationality usually discussed in argumentation theories – but now we can start appreciating that this is due to a staunch refusal of looking at argumentative decisions, rather than to a legitimate predilection for a normative stance. Indeed, argumentation theories typically focus

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[4] My misgivings depend on what I see as a confusion between two different pairs of opposites: "normative vs descriptive", and "general vs particular". While I take it as a given that argumentation theories, *qua* theories, should aim to extrapolate general models of argumentative processes from a myriad of particular concrete instances, instead of just collecting facts, I do not see why such theories should necessarily be only, or even mainly, of normative nature. Clearly, defining standards of correctness for argumentation is a noble endeavour. But it is no less noble to account, with appropriate generality, for what mechanisms and processes determine the shape of real-life arguments, as they are observed empirically. Thus I find the identity "argumentation theories = normative approaches" to be misleading and limiting: at best, it registers an objective predominance of normative concerns in the extant literature, but this is the fruit of historical accident, not of theoretical necessity.

on the *inferential validity* of arguments (whether the conclusion follows from its premises, and with which strength) and the *dialectical appropriateness* of argumentative moves (under what conditions an arguer is permitted and/or required to undertake certain dialogical acts, given a shared set of norms on how to conduct a rational discussion).

These normative concerns are absolutely relevant, but not necessarily antagonistic with respect to the strategic rationality of argumentative decisions made by speakers. On the contrary, it is quite clear that the strategic value of an argumentative move is at least partially *independent* from both the inferential validity of the argument on which it is based, and the dialectical legitimacy that authorizes its use in that context. For instance, as far as it is reasonable to expect the counterpart not to notice a logical or dialectical infraction, and such infraction allows the arguer to pursue his/her agenda optimally, then it is strategically rational to commit that infraction, even if the resulting argument is inferentially invalid and dialectically incorrect. Conversely, a logically excellent argument might turn out to be strategically useless (e.g., if the counterpart is unable to follow its inferential steps) or even damaging (e.g., if it is bound to lead to violent escalation of the social conflict – being right did not do much good to the Talking Cricket in *Pinocchio*, as readers may recall); the same applies to an argumentative move that is dialectically appropriate but practically ineffective, or worse (e.g., legitimate criticism may be construed as a personal aggression, which is something to be avoided in various contexts).

However, even if it makes sense to speak of strategic rationality with respect to argumentative decisions, and even if this dimension cannot be reduced to other normative concerns, one might still object that strategic rationality should not be a dominant factor in establishing what is the right way of arguing. On the contrary, a staunch opponent to the study of argumentative decisions might insist that strategic rationality should remain *subordinated* to other, more relevant normative standards – again, inferential validity and dialectical appropriateness. In this view, an argumentative decision, in order to be rational, *has* to produce a valid argument and/or an appropriate move, regardless of what other practical goals it might satisfy. Validity and appropriateness are necessary (although not sufficient) conditions for the overall rationality of argumentative decisions. In contrast, strategic rationality really matters, normatively speaking, only to choose between equally valid and equally appropriate argumentative options. Such role is, at best, ancillary; at worst, it is irrelevant, when there is no more than one maximally valid and optimally appropriate option to select from.

This restrictive view of the role of strategic rationality in argumentation may seem to have a certain intuitive appeal. After all, the fact that there are practical reasons (e.g., swaying the audience, or avoiding harsh confrontation) to prefer a sub-optimal argumentative option (e.g., an invalid argument) does not make that option any better. Put it more simply, an invalid or inappropriate argument does not become valid or appropriate only because you use it smartly to achieve your practical goals, and get away with it. This is of course correct. However, it misses the point, which is *not* to reduce validity or appropriateness to strategic rationality, but rather to claim that the latter can have equal or even higher normative status than

the former, when it comes to assess the rationality of a certain argumentative behaviour. The point is not to conflate these different dimensions of rationality, but rather to put all of them on equal footing. Just as inferential validity can overrule strategic rationality in certain contexts (e.g., in scientific debate), the opposite can also happen.

Cases where strategic considerations do (and ought to) outweigh other normative concerns abound in political discourse. Imagine for instance that there are valid economic reasons to cut down on salaries of public employees, because this will ultimately result in a benefit for the economy as a whole and even public employees will be better off in the end, in spite of their reduced wages. However, the reasoning required to grasp this chain of economical causes and effects happens to be well beyond the understanding of laymen, and getting involved in technicalities would only muddle the issue and engender suspicion in the public eye. Hence, the political party promoting this reform opts for packaging the proposal as a fight against the rampant corruption, widespread inefficiency, and undeserved privileges of public servants. This succeeds in creating strong support for the proposal in the general public, although it makes public employees dead against these cuts (but this would have happened anyway, most likely). As a result of this argumentative strategy, the reform is voted and comes into effect: luckily, the expected benefits ensue, and in the long run everybody is happy.

Now, assuming side-costs (e.g., social tensions) to be negligible and all alternatives far less likely to succeed, it is clear that this line of action complies with strategic rationality. However, it does so at the expense of inferential validity, since a stronger argument (the one based on long-term economical benefits) is silenced, and also with some detriment to dialectical appropriateness, since creating an *ad hoc* polemical target to rally support against it hardly conforms with the procedural rules of civilized debate. So, to put it simply, here we have a case where strategic rationality is satisfied by sacrificing inferential validity and dialectical appropriateness. The question is whether this is normatively legitimate. In other words, is this argumentative strategy rational *overall*, or not?

In this case, the answer is in the affirmative. And what makes all the difference is the context. By "context" here I do not mean anything mysterious, but rather refer to the *ultimate goal* for which a certain argumentative process comes into existence – and such ultimate goal is, typically, extra-dialogical, that is, we argue as a means to achieve something that goes beyond mere "victory" of the argument itself (for details on this point, see Paglieri & Castelfranchi, 2010a).[5] In the example above, and in political discourse in general, the ultimate goal is bringing about policies that are in the common interest. Since that goal is optimally satisfied by the argumentative strategy described before, that strategy is eminently rational, in spite of its shortcomings in terms of inferential validity and dialectical appropriateness. Put it differently, it is the ultimate goal of the argumentative engagement that

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[5] Besides ultimate goals, another element that plays a key role in defining different argumentative contexts are the *values* that a certain community considers central to that particular situation. For the sake of brevity, here in-depth analysis of the role of values in argumentation is skipped (but see Gilbert, 1997, for an illuminating discussion of this point).

determines the relative priority of different (and potentially conflicting) normative concerns: in the case of political debate, strategic rationality often trumps other concerns, and rightly so, as long as the public interest is served.

For the same reason, different contexts might instead assign greater weight to other concerns. Imagine for instance that a similar argumentative decision is faced by a teacher aiming to explain students why the reform policies of a certain administration were to be applauded. Here the question of what argument is easier to follow and more likely to garner consensus is nearly irrelevant, whereas extreme care has to be put in presenting valid arguments in support of the teacher's position. Again, what dictates the order of priority among normative concerns is the ultimate goal of the activity: in academic matter, getting to the truth of the matter is often the gold standard, and thus inferential validity trumps other rationality criteria.

We can now appreciate why strategic rationality is not necessarily subordinated to inferential validity and dialectical appropriateness, when it comes to assessing the overall normative legitimacy of argumentative decisions. This also implies that such decisions deserve proper recognition in argumentation theories, not only as a matter of empirical curiosity, but also as a source of interesting normative intuitions. Hopefully, no fellow scholar shall lose sleep over that prospect, since what is being advocated is just a broadening of the field in general, with no specific obligations placed on any individual. On the contrary, I expect logicians with an interest for argumentation to maintain their privileged focus on inferential validity, whereas colleagues working in pragmatics will mostly keep on studying dialectical rules and practices. However, they will have to be joined by a relatively new group of "psychologists of argumentation", with a keen interest also (not only) for argumentative decisions. They should be welcomed in the broad family of argumentation scholars, not just as mere collectors of facts, but as argumentation theorists in their own right, since their paramount aim will be to outline a psychological theory of argumentative processes.[6]

4. CONCLUSION

In this paper I highlighted the relative neglect for the study of argumentative decisions in argumentation theories, I insisted in contrast on its potential usefulness, summarizing some recent results in that direction, and I defended the decision-theoretic approach to argumentation against the objection that it lacks in normative ambitions.

Admittedly, these are just few preliminary steps in a far-reaching and (hopefully) fruitful research programme. But why should we venture along that uncertain path, instead of treading more familiar and well-respected avenues? I see

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[6] For this to happen, psychologists will have to ally with other scholars interested in the psychological effects of communicative acts: marketing and advertising are obvious areas of relevance here, but also communication studies in general. Maurice Finocchiaro recently emphasized the same point, while commenting on the current disregard for experimental studies in argumentation theories: «although a philosopher would want to adopt a critical stance toward such empirical work, it is clearly suggestive and one can ignore it only at one's own risk» (2011, p. 252).

two main reasons for taking this scientific bet. On the one hand, the study of argumentative decisions naturally lead to integrating theoretical analysis and empirical research, as we have seen even in this short contribution: such integration is both necessary and productive, as others have convincingly argued (Hample, 2005) and/or practically demonstrated (e.g., see the recent empirical study on argument reinstatement, published in *Cognitive Science*; Rahwan et al. 2010). On the other hand, argumentative decisions are crucial for various practical applications of argumentation theories, ranging from the development of new argument-based technologies (for discussion, see Paglieri & Castelfranchi, 2010a) to educational reforms, e.g. for developing critical thinking skills and curricula (for a survey, see Sobocan & Groarke, 2009).

Upon reflection, the reason why people keen to improve their argumentative competence turn to the self-help aisle of their favourite book store (featuring masterpieces such as *How to argue like Jesus*), instead of listening to the wisdom of argumentation theories, is because the latter so far failed to explain, or even try to, how arguers can select optimal moves in real-life debates. One does not need to wish for mass conversion of sedated argumentation scholars into hardened spin doctors, to appreciate that such lack of interest is unwarranted and ultimately disastrous. The point is not to produce yet another list of dialectical tricks to "win every time" or "argue powerfully, persuasively, positively" (as per the subtitles of two successful self-help manuals): such pamphlets have been in circulation since antiquity, from Quintilian's *Institutio Oratoria* to Schopenauer's *The Art of Always Being Right*, without improving too much our understanding of argumentative decisions. The real challenge is to explain *why* such tricks work: how, when, and under what circumstances. Argumentation theories are ideally equipped to tackle this challenge, but they need first to pay closer attention to argumentative decisions and their underlying rationality.

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