Ruinous Arguments: Escalation of disagreement and the dangers of arguing

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ABSTRACT: People argue to reconcile differences of opinion, but reconciliation may fail to happen. In these cases, most theorists assume arguers are left with the same disagreement from which they started. This is too optimistic, since disagreement might instead *escalate*, and this may happen *because* of the argumentative practice, not in spite of it. These dangers depend on epistemological, pragmatic, and cultural factors, and show why arguers should be (and are) careful in picking their dialogical fights.

KEYWORDS: escalation of disagreement, psychology of argumentation, rational expectations, strategic reasoning.

1. INTRODUCTION

The idea that arguing helps people to reconcile their differences of opinion has great prominence in argumentation theories. Some approaches, like pragma-dialectics (van Eemeren, Grootendorst 1992; 2004), consider this to be the main purpose of every argumentative practice, whereas other theorists see it as the leading goal of a specific type of argumentative dialogue (Walton and Krabbe 1995; Walton 1998), or as one of the key functions of argumentation, albeit not the only one (Gilbert 1997; Johnson 2000). Being argumentation a fallible practice, it is admitted that reconciliation may not happen, and this is taken to indicate a failure of the dialogical interaction. But it is usually assumed that, in these sad cases, the arguers are left with the same disagreement from which they started, and nothing else.

      I suggest this description of argumentation failure is far too optimistic, since many cases of everyday debate turn out to be much unhappier. As a case in point, consider the all too familiar case of a married couple, who start idly debating what would be the best color for the new tapestries, and half an hour later find themselves bitterly quarrelling on who is to blame for their inability to agree on the small things of life. As this example illustrates, there are circumstances where the level of disagreement *escalates* during the argumentative interaction, instead of diminishing. Moreover, and this is the provocative thesis defended here, the escalation of disagreement happens *because* of the argumentative practice, and not in spite of it. Daniel Cohen (2005) has made a somehow

similar point with reference to the transfer of credibility from premises to conclusions that arguments are supposed to ensure: he showed that not only this transfer may fail to happen, which is obvious, but also that bad arguments can backfire and end up undermining the credibility of the conclusions they intended to support. Here I explore a different way in which argumentation can backfire, not in terms of its effect on the credibility of the conclusions, but in its impact on the level of disagreement among the arguers.

One of the few argumentation theorists to mention escalation of disagreement as a typical danger of arguing has been Jean Goodwin.[1] She puts it very succinctly, remarking that "the most salient consequence of the joint activities involving arguments is to make the participants mad: this is at least a widely held ordinary view of the function of argument" (2007, p. 76). Here she is making two empirical claims: that disagreement *is* the most typical consequence of an argument, and that most people *perceive* it to be so. Goodwin provides some evidence of the latter, e.g. showing that it is very easy to elicit such view from students (2005; additional evidence can be found in Martin and Scheerhorn 1985; Hample and Benoit 1999), but she does not pursue the former claim any further—understandably so, since the point is mentioned in passing within a broader criticism of the functional approach to argument analysis. In what follows, I argue that Goodwin is partially right also in her first claim: "partially right" here means that (i) disagreement can indeed escalate (ii) due to argumentation, and not in spite of it; but (iii) this is not enough to prove the empirical claim that disagreement is the most likely outcome of argumentation, and indeed I believe this not to be the case, although the matter will not be further discussed here. Instead, I will insist on the strategic relevance of argument-induced disagreement, trying to show that arguers consider very carefully the possibility of fueling disagreement with the counterpart, in deciding whether to argue or not.[2]

This line of reasoning has important connections with the broader agenda of psychological research on argumentation practices (for an excellent overview of the field, see Hample 2005). In particular, the work on *argument editing* done by Hample and colleagues (Hample and Dallinger 1990; 1992; Hample et al. 2009) is of special relevance here. Editing is supposed to intervene between private conception of a message and its public manifestation: when the arguer's primary goal and his background knowledge spontaneously suggest him a possible argument to foster his position, he can decide whether or not to make use of that argument—and this is what Hample and others call an editorial decision. Editing can invite either suppression or revision of the message, for a variety of reasons: the empirical work done in this area has investigated exactly what these reasons are. In what follows, and in particular in section 3, I will address a similar problem, discussing how the arguer's expectations on disagreement may prompt him to make different decisions in argumentative engagement.

However, with respect to editing, my concern here is at the same time broader and narrower. It is broader in the sense of considering the decision to engage in

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[1] Another is Deborah Tannen (1998), who takes for granted that an "argument culture" is one in which confrontation and fighting are constant threats and, to some extent, inbred forms of social engagement.
[2] This analysis is thus in the vein of, and largely compatible with, what has been called an individual-level analysis of argumentation (Jackson 1992) or, more recently, the *design approach* (Goodwin 2001; see also Kauffeld 1998; 2002; Manolescu 2005; 2006).

argumentation at all, whereas editing usually applies to single arguments, under the assumption that the subject is already arguing and has to decide how to proceed. But the scope of this paper is also narrower, because I confine myself to expectations of disagreement as a strategically relevant element, while studies on editing explore a greater variety of strategic considerations. In spite of this difference, readers will notice a substantial overlapping between the factors presented in section 3 and some of the editorial standards identified by Hample and colleagues, in particular those labelled as "person-centered" (Hample and Dallinger 1990; 1992). This is not surprising: it stands to reason that people, in making strategic decisions on their argumentative practice, use similar criteria both locally (should I use this particular argument in this dialogical interaction?) and globally (should I argue at all in this social situation?). Further studies will then be needed to (i) empirically verify the global effects on argumentation of the criteria discussed in this paper, and (ii) better integrate this analysis within a comprehensive psychological account of argumentative practices.

2. REASONS OF DISAGREEMENT: WHY ARGUING DOES NOT ALWAYS HELP

On the view defended here, disagreement is not just an unfortunate event that happens independently from argumentation and that arguments sometimes fail to mend. We consider a stronger claim: that argumentation can be *conducive* of disagreement, due to its very nature and to the conflicting agendas of the arguers. Arguing can engender escalation of disagreement mainly due to four factors, which are complementary and do not exclude each other:

(1) *Epistemological factor*. Your having different opinions from myself is understandable and legitimate, but refusing to accept what I consider valid reasons is easily taken to indicate stubbornness and lack of cooperative disposition. That is, disagreement on unjustified opinions is more easily condoned than disagreement on justified opinions. The very fact of engaging in argumentation raises the stakes for social interaction: before arguing, we could both believe to be right, and yet remain vague on many important points, e.g. what reasons made each of us convinced of different things, whether these reasons were valid or not, where was the (alleged) mistake in the line of reasoning of our counterpart, etc. But arguing is tantamount to investigating head-on all these issues, so that we are no longer just stating our view and refusing to yield to the other, but also try to prove the other wrong, e.g. dissecting and criticizing his position point by point.

       Another way of putting this idea is in terms of merely disagreeing vs. *finding fault* in the other's reasoning. Pre-argumentative disagreement usually starts in substantial ignorance of each other reasons to endorse opposing views, and this leaves room for tolerating the disagreement itself as faultless (see also Kölbel 2003): for all I know of what you know, you may have good reasons to differ from my opinion, even if this leads you to wrong conclusions. As far as mutual respect is concerned, ignorance can indeed be a blessing. In contrast, arguing forces both parties to uncover the reasons of the counterpart and to reveal their own, so that ignorance of each other reasoning can no longer serve as an excuse. This has the effect that, if no agreement is reached on the original issue, the parties usually end up considering each other both mistaken *and* unreasonable, whereas at the onset only the first charge applied.

(2) *Costs/benefits factor*. Arguing requires the subject to suffer some costs, in terms of time, breath, cognitive resources, social exposure, plus what economists call opportunity costs—all other things I could have done, if I was not stuck here arguing with you. These costs steadily increase as a function of argument duration: the more we argue, the more resources we have to commit to it. The benefits of arguing, however, often do not have the same dynamics. Take persuasion as a case in point: if I stand to gain something from persuading you, whatever benefit I hope to achieve is independent from the time I spend achieving it, whereas the costs are not. The same applies to negotiation dialogues, while other types of argumentative interaction may have different dynamics. Following here Walton's taxonomy for the sake of clarity (1998), in inquiry and eristic confrontation benefits are likely to increase proportionally with the time spent arguing: the more we argue, the more we improve our understanding of the topic (inquiry), or the more we vent our feelings towards each other and/or manage to hurt each other (eristic confrontation).[3] So in these cases the extra costs suffered may be more than compensated by the additional benefits of prolonged discussion. As for information-seeking dialogues and deliberation, in these cases benefit dynamics depend mainly on the details of the situation: if the information I seek is quite specific, the sooner I get it the better, whereas, if I have broader curiosities, extended discussion may be more beneficial; similarly, if we are deliberating on something specific for which we know all the relevant facts, efficiency favours a relatively short discussion, whereas, if the issue is more complex, prolonged debate may be the best option.

Let us now focus on instances where costs are likely to increase while benefits remain stable over time, e.g. in persuasion and negotiation. Here prolonged argumentation is usually not in the agent's best interest, and this effect is cumulative: the more efforts I devote to convince you, the more I stand to lose if, at the end of the day, you are not convinced. This may have a twofold effect on the likelihood of disagreement escalation. On the one hand, it makes arguers increasingly disappointed, since what appeared at the onset as a good deal is turning into an expensive mess from which they fail to extricate themselves. This progressive deterioration of the arguers' emotional state is likely to result in more aggressive behaviour towards each other, which in turn is conducive of further disagreement. On the other hand, the subject may start developing the feeling that the other is being deliberately dense or difficult, and that he fails to see reason out of some form of malevolence. After all, you have witnessed my labours to rationally persuade you, so the fact that you do not yield to my view may indicate that you care more for your opinion than for my own sake. This can easily be construed as an ungrateful and aggressive attitude, especially if you are friend or kin—and this helps explaining why we usually quarrel more bitterly with people we care for, as opposed to utter strangers or enemies. From the latter we do not expect the same caring disposition that we consider suitable for the former (see also point (v) in section 3).

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[3] It goes without saying that eristic confrontation may often result in an escalation of disagreement between the parties, albeit this may also produce a cathartic effect which is ultimately beneficial (Walton 1998, pp. 184-186). However, the point I am making here concerns argumentation in general, which can happen to fuel disagreement, rather than quench it, also when it is not embedded in eristic dialogues.

(3) *Articulation factor*. Insofar as arguing involves the giving and receiving of reasons, it multiplies the potential issues of disagreement. Indeed, it is a common experience that what is difficult to find while arguing is some common ground that both parties are willing to admit to. And even if this common ground is somehow established, the arguers will often try to put forward qualifications of their position to clarify why accepting such a common ground does not commit them to yielding to the opponent's claim. The very fact that complex instances of argumentation involve scores of sub-arguments indicates that the original disagreement has birthed a huge offspring of sub-disagreements. Sometimes these new issues are minor and remain instrumental to the overall debate (e.g. whether the source I am quoting for support is reliable), but often they acquire greater importance than the original topic (e.g. whether you should trust my word on the matter at hand, rather than being sceptical of what I say), so they highjack the argumentation and turn it to other purposes. This is for instance what happens when so called "matters of principle" arise during a discussion on mundane issues.

This element can be given a more precise formulation in terms of probability, albeit here I will only provide a sketch of the idea. Let us assume that for any issue S there is a certain probability p that two subjects, X and Y, will disagree on it—that is, that X will believe S, while Y believes $\neg S$. The size of p depends on a variety of factors, most of which fall into four categories: *evidential clarity*, i.e. the more abundant, clear-cut, and unambiguous is the evidence about S available to both X and Y, the smaller p is; *experiential homogeneity*, i.e. the more X and Y share the same experiences about S, the smaller p is; *cognitive similarity*, i.e. the more X and Y share the same reasoning processes as far as S is concerned, the smaller p is; *inherited disagreement*, i.e. given another issue S' which both X and Y consider relevant to S, p is proportional to the probability p' that X and Y will disagree on S'. The last factor captures the fact that, if we disagree on whether Obama or McCain should be elected as President, it is more likely (albeit not necessary) that we disagree also on abortion rights and their extent. This is precisely the reason why articulation via argumentation increases the chances of disagreement: we start the discussion disagreeing on S, then proceed to consider other issues S', … , S^n that are relevant for S (and they need to be relevant, to avoid red herrings). Since we disagree on S, it is likely that we disagree also on S', … , S^n, thus by focusing on them we may uncover further reasons of dissent between us. Even if we subsequently manage to solve the original disagreement, it is perfectly possible that some sub-disagreements still survive: this is for instance what happens when we concede to the opponent that "he is right for the wrong reasons." Notice that in this case the disagreement has been created (or, in most cases, uncovered) by the very act of arguing, thus sharpening not only our respective positions, but also the divide between them.

(4) *Socio-cultural factor*. Taking at face value what is said is, in most social contexts, the 'right' thing to do, i.e. what social conventions demand of people: if someone doubt your word on a given matter, the sceptic has better to produce some reason to back up that challenge, otherwise he will be labelled as unfriendly, rude, blunt, uncouth, opinionated, etc. This is partly due to the pragmatics of human communication:[4] while accepting the

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[4] Here I endorse a Reidian view on trust in social testimony (Reid 1970): its applicability to argumentation is extensively discussed elsewhere (Paglieri 2007; Paglieri and Castelfranchi in press a; Paglieri, Woods in press), so here it will be taken for granted. Other supporters of the Reidian perspective, broadly construed,

truth of what we are told does not require any further justification, other than the fact that we were told, doubting the information we receive from others must be justified, e.g. by the fact that we believe differently, or that the source is known to be unreliable or biased by some hidden agenda, etc. Arguing, either to persuade the opponent of some claim he does not yet endorse, or to refute the reasons provided by the proponent, implies challenging this default trust, and thus requires some justification, whereas the same is not true for lack of argument (e.g. directly assenting or keeping silent).

In addition to default trust in social testimony, also specific socio-cultural patterns contribute to determine the acceptability of argumentation across different contexts: arguing is more or less acceptable depending on the current social setting. For instance, scientific conferences are possibly the most argumentation-tolerant environments, whereas family meetings with elder relatives tend to be argumentation-intolerant situations. The fact that argumentation is culturally discouraged in certain contexts does not of course imply that people will not argue all the same in such contexts: whoever witnessed a family reunion turning into a nightmare of mutual accusations knows this as a fact. But cultural norms have a direct effect on the *consequences* of arguing: if you decide to argue in a situation where this is commonly considered inappropriate, you are fully aware that your act will constitute a breach of social protocol, whether you are right or not—and whether you manage to persuade the counterpart or not. The very fact that you are arguing, in spite of social conventions, constitutes a point of (possibly bitter) disagreement with all those that uphold such conventions. By way of example, consider a couple driving home after a dinner with the wife's parents and some family friends, in which the husband got into a quarrel with his father-in-law and accused him of being despotic. Even if the wife completely agrees with her husband, she may well accuse him of having behaved very badly, on the ground that a formal dinner with family friends was not the appropriate occasion to discuss personal matters with her parents. Most importantly, she may be perfectly justified in her accusation, regardless the amount of reasons that support the husband's view of his father-in-law: the point here is not who was right in the original argument, but rather whether it was appropriate to discuss the matter at all. So, in argument-intolerant situations, arguing is likely to expose the arguers to a specific form of disagreement, concerning the application of socio-cultural conventions on argumentation: beside disagreeing on the topic of discussion, the parties will probably also disagree on whether it is appropriate or not to have that discussion in the first place.

3. PICKING YOUR FIGHTS: EXPECTATIONS OF AGREEMENT AND THE DECISION TO ARGUE

These musings are not meant to suggest that argumentation is a hopeless endeavour, and that we should steer clear of it in view of its inherent risks. Who needs to be reminded of these risks are the theorists, not the arguers. In deciding whether to argue or not, we are naturally careful in "picking our fights," precisely because we are aware of the costs and

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include David Lewis (1969), Paul Grice (1989), and Alvin Goldman (1999), whereas Dan Sperber (2001) provides a thorough critique of it. For a general outlook on social epistemology, see Govier (1997; 1998), Goldman (1999), and Origgi (2004).

the dangers of argumentation, in particular for the sake of our social life.[5] Nonetheless, we do pick some fights, because in the appropriate circumstances we consider it is worth taking the risk of arguing. But this prudent stance finds little space in most argumentation theories, where it is at best conceived as a sort of lamentable timidity in engaging in the noble art of argumentation. It is nothing of the sort. On the contrary, it contributes to the rationality of argumentative practice, precisely because argumentation is (also) a practice, and as such we need reasons to decide whether to engage in it or not. A cost/benefit analysis, couched in social terms, is one of these reasons, and a very important one, especially when dialogue aims to manage a difference of opinions between the parties.

Some of the considerations that enter such analysis have nothing to do with the level of agreement that argumentation is supposed to achieve. For instance, the efforts we expect to make in putting forward an argument are often crucial in deciding whether to argue or not. We do not argue when it is not worth it (Karunatillake and Jennings 2005), and, most importantly, we are rationally justified in doing so. Moreover, increasing agreement with the counterpart is not the only possible purpose of argumentation: in scientific inquiry, arguments are often driven by a desire to know more about the matter under consideration, regardless whether this results in greater consensus with colleagues (Walton 1998); indeed, the originality of one's inquiry is often gauged in terms of how much it contrasts with other views, especially if these views are firmly established in the scientific community. As far as inquiry is concerned, disagreement may be more valuable than agreement, at least as a driving force. However, in what follows I confine myself to strategic considerations on when and why arguments can be expected to either favour or undermine agreement between the parties: for a more comprehensive cost/benefit analysis of argumentation, see Paglieri and Castelfranchi (in press b).

So the question now is when it is legitimate for the subject to expect that arguing will increase the level of agreement, and when instead it is reasonable to suppose that (i) argumentation will produce an escalation of disagreement and (ii) such escalation will have negative effects on the dialogical interaction. These are two different, albeit related concerns: the first refers to expectations on whether arguing will either quench or fuel the original disagreement, while the second includes expectations on how disagreement escalation may affect both one's own agenda and the social interaction with his counterpart. Both aspects are important to decide whether to argue or not, and nine distinct types of considerations factor in this decision (the list is not necessarily complete, and the order does not reflect degrees of importance):[6]

(i) *Strength of one's own arguments*: the more confident I am of my reasons, the more inclined I should be to expect acceptance of them from my counterpart. Of course I may

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[5] Gilbert makes a similar point, when he observes that "no one argues without taking into account how she is perceived by her opponent, how she perceives him, and how the relationship will be maintained during and after the argumentation" (1999, p. 2). Notice that Gilbert here maintains that agreement is the main function of argumentation, and urges us to appreciate that such agreement is not just a matter of rational consensus on the truth of a proposition, but it rather calls for a multimodal approach to argumentation (see also Gilbert 1997).

[6] As noted in section 1, much of what follows bears a strong affinity with work done on argument editing (Hample, Dallinger 1990; 1992; Hample et al. 2009), albeit it refers to a different type of decision: editing is about assessing single arguments within a dialogical interaction the agent is already engaged in, while here I am discussing the decision to enter such an interaction in the first place.

be mistaken and overestimate the value of my arguments. But this is not the point: even if my assessment is incorrect, it will still influence my expectations on how well received my position will be (and should be) by the audience. All of us experience surprise and mild indignation when an argument that we consider irrefutable fails to elicit immediate agreement from the counterpart. In these circumstances, we feel much less inclined to accept the counterpart's reservations as well-founded, and tend to be curt and "take things personally." Escalation of disagreement is likely to result from these premises. Notice that argument strength here does not necessarily means deductive validity or inductive force, because also considerations of rhetorical efficacy enter the picture, as far as persuasion is at stake. Indeed, in order to achieve agreement what really counts is the fact that the argument is psychologically appealing for the counterpart: whether or not this depends on its formal quality, it is largely beside the point.

(ii) *Importance of the counterpart's belief*: if I know you to have very strong convictions on the matter of our disagreement, I will be pessimistic on the likelihood of changing your mind, and I will also fear that you might resent my attempts of inducing such change. Here the key factor is not so much the evidential force of the belief I aim to challenge, as much as its cognitive importance (Castelfranchi 1997; Paglieri 2004)—that is, how crucial and central is that particular view for your system of belief, so that if I prompt you to reconsider it, this will force you to revise many other convictions. People usually do not appreciate being compelled to undertake any mayor "paradigm shift," not even if they are led to do so by rational persuasion, because (a) it takes a lot of effort to drastically revise one's belief system, and (b) it leaves you with the feeling of having been deeply mistaken for a long time. Accordingly, we usually think twice before arguing about what we believe the counterpart to care most about, precisely because we suspect that, if we forced his hand without good motive, the reaction would be strongly negative and disagreement would escalate.

(iii) *Complexity of the issue under consideration*: as mentioned in section 2, exploring an issue by arguing on it is likely to multiply the topics of potential disagreement between the parties. The more complex is the matter being debated, the more drastic this multiplication effect will be. This is the main reason why people are very prudent in entering debates on complex issues, and rightly so. As a case in point, take current academic discussion on the nature of consciousness: the topic was indicated by *Science* in 2005 as the second biggest mystery to be addressed in the next 25 years, the first being the nature of the universe. The assessment was probably correct, since, as of today, philosophers, psychologists, and neuroscientists fail to agree on almost every aspect of the issue. Current items of heated debate include, among many others: What do we mean by "consciousness"? How many types of consciousness exist, and how they differ from each other? Is consciousness reducible to a physical phenomenon, or Cartesian dualism is the correct option? Can machines ever be conscious? Is phenomenal experience intrinsically subjective? Are phenomenological reports acceptable sources of information on consciousness? Is there any hope in the search for the neural correlates of consciousness, and how should we try looking for them? In light of the titanic proportion of the dispute, many philosophers (including philosophers of mind) carefully avoid

entering the arena, while those that are engaged in it so far managed to stimulate, rather than sedate, the level of disagreement.[7]

(iv) *Sensitivity of the issue under consideration*: we are very reluctant to argue about topics that are sensitive for ourselves or the counterpart, or both. For instance, only the most foolhardy husband will engage his wife in a debate on what is best to do during childbirth. This depends not only on a desire to avoid harming or being harmed, but also on an interest in preventing disagreement escalation. Since breaching certain topics can be painful, and since this fact is often know to both parties, arguing about such topics is easily construed as a deliberate aggression, cruelly aimed at the counterpart's "soft spot." This is likely to make the parties deaf to reason and turn even the most amicable suggestion into a fight.

(v) *Expectations of the counterpart*: depending on what social attitude we believe the other to expect from us, we gauge differently the appropriateness of arguing with him. Considerations of friendship or kinship are a good example: we often justify our reluctance to argue with friends and family by a desire not to hurt their feelings. But why should their feelings be intrinsically more important to us than those of any other fellow human being? I suggest they are not. Rather, our reluctance is motivated by the fact that friends and family are expecting "more agreement" from us than what is anticipated from (and by) strangers. After all, we are part of the same social group, and what defines us as members is the sharing of certain convictions, plus a more or less explicit convention not to hurt each other. So the feelings of friends and relatives are more easily hurt by arguing, because open disagreement could be construed as a betrayal of legitimate social expectations, and not because arguing in itself is especially hurtful. I was expecting your approval, and the fact that it is denied to me breaks this expectation, thus producing a certain amount of pain, disquiet, or discomfort. A stranger, lacking any specific expectation on whether you share his views or not, is much less vulnerable by your disagreement with him.

(vi) *Domain of discourse*: depending on the content of what is being debated, a higher or lower level of disagreement may result socially tolerable. Matters of taste, for instance, usually allow much more disagreement than any discussion on more objective issues. There is a mild irony here: if it is true, as for the Latin maxim, that *de gustibus non disputandum est* (tastes are not to be disputed), how come we debate so often on matters of personal taste, e.g. on the perceived quality of a certain book, movie, song, or opera? Personal tastes are so frequently disputed precisely because they are not disputable, in the sense that people cannot be forced to change their aesthetic preferences, thus they feel relatively safe in discussing them. The subjective nature of personal tastes provides a shelter for anyone that would be hard pressed to answer objections on matters of fact. In other words, in discussing tastes we are usually free to disagree with each other, without having to assign any blame (moral, epistemic, or otherwise) to people we disagree with

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[7] Obviously, disagreement in philosophical or scientific debate may be very valuable, as noted before. Indeed, the sustained debate in consciousness studies produced significant breakthroughs in our understanding of how the mind works. But the fact remains that argumentation on complex issues does not typically reduce disagreement, whether or not this happens to be a good thing.

(see also Kölbel 2003). This reduces our concerns on escalation of disagreement, thus making us more inclined to arguing on these issues.

(vii) *Dialogical goal of the interaction*: as already noted in section 2, different types of dialogue assign a different role to agreement or disagreement, depending on the common dialogical goal, or function, that characterizes that typology (here, as elsewhere, I follow Walton's taxonomy, 1998). For instance, inquiry not only tolerates, but also actively promotes disagreement, since consensus is not intrinsically valuable in this context (although it can be needed to locally confirm the validity of a given hypothesis or theory), whereas disagreement is instrumental to breed original ideas and invite considering new problems with novel methods. On the contrary, disagreement is destructive of persuasion dialogues: when attempts at rational persuasion result in an escalation of disagreement, this indicates that something has gone very badly in the argumentative interaction, at least from the standpoint of the persuader. This suggests that the decision to argue or not is sensitive to the kind of dialogical interaction the arguers expect and/or want to produce.

(viii) *Power relations between the arguers*: by and large, it is a good rule-of-thumb to avoid getting into a fight with your boss, unless it is strictly necessary. Sure, she or he may welcome the challenge and appreciate your outspoken attitude as a sign of courage and moral fibre, as it happens so often in Hollywood movies. Unfortunately, in real life chances are that you will be fired, demoted, punished, or at least diminished in the eyes of the person who has most influence on your career. Let us be clear: to avoid picking fights is not the same as to curtail favour with all manners of servile attitude. It is rather a matter of acknowledging that having power over you also entails an expectation on your tendency to argue, and that this expectation is justified. The expectation is that you will argue only with very good cause (i.e. more than what would be needed otherwise), and two reasons justify such expectation. First, arguing with leaders is intrinsically subversive of the existing power structure, since it usually entails suggesting that you are right and they are wrong. But that power structure is valuable, both for the leaders and for the whole social group, so the fact that you are right is not enough to justify your argumentative attitude—it must also be the case that showing that you are right achieves some further purpose (e.g. the welfare of the company or of the tribe), other than your personal satisfaction. Second, leaders typically have to fight to first win and then keep their position: insofar as arguing challenge their competence on the matter under discussion, it could be interpreted as an attack to their authority, especially if the argumentation is conducted publicly (see next point). Whenever this happens, the leader has to retaliate in order to preserve the status quo, even if, in different circumstances, he or she would be willing to admit of having been in the wrong. Both facts increase the likelihood that arguing with "people in high places" will fuel further disagreement, and put the arguer in a very difficult position: hence we all tend to tread lightly in these cases.

(ix) *Level of publicity of the dispute*: we rarely expect people to admit their faults in public, and this applies also to arguments. If you aim at peacefully resolving a dispute, it is better trying to settle it in private, rather than dragging the counterpart in a court of law—or in any other public arena, for that matter. Disagreements are better kept private for obvious reasons: being right and being able to prove it is considered indicative of

many positive qualities, such as lucidity of judgment, strength of character, clarity of reasoning, inventiveness, and fluency. On the contrary, argumentative failure is taken to show lack of these desirable features, and this is something we definitely do not want the general public to witness. Indeed, we would be happy to showcase our argumentative triumphs, if only there was no danger of making our dialectical debacles equally manifest. But there is such a danger, so caution suggests keeping our disagreements as private as possible, to avoid devastating effects on our reputation as rational agents. Clearly, this tendency is modulated by personality traits: extroverted and self-confident people will be less preoccupied of making fools of themselves, and thus more ready to argue in public, whereas introverted and insecure characters will strongly prefer private disputes. This in turn affects expectations of disagreement: if forced to publicly argue against his will, your counterpart will probably become so headstrong as to border irrationality, simply because he would rather die than publicly admit he is wrong. In contrast, engaging that person in private debate on the same issue, you would have no problem settling the matter quickly and peacefully. Avoiding escalation of disagreement is the reason that motivate our tendency to argue in private, especially if the initial positions differ sharply and the matter is sensitive.

4. THE QUARRELSOME COMPUTER: IMPLICATIONS FOR ARGUMENTATION TECHNOLOGIES

Finally, greater awareness of the dangers of arguing is crucial for technological applications of argumentation theories. This is a vibrant field of research in Artificial Intelligence (for a recent survey, see Bench-Capon, Dunne 2007), as witnessed by several scientific meetings (the workshop series *ArgMAS*, *CMNA*, *Persuasive Technologies*, and since 2006 the large-scale biennial conference *COMMA*), publications (aside from the proceedings of the conferences just mentioned, see also Reed, Norman 2004, Walton 2005, the special issue of *Artificial Intelligence* edited by Trevor Bench-Capon and Paul Dunne in 2007, and the new journal *Argumentation & Computation* forthcoming in 2010 by Taylor-Francis), and large-scale research projects (e.g. *ASPIC - Argument Service Platform with Integrated Component*, http://www.argumentation.org/, and the support COST action on *Agreement Technologies*, http://www.agreement-technologies.org/). Broadly speaking, the relevance of argumentation theories for AI is twofold, spanning both programming issues and human-computer interactions. Concerning computer programs and protocols, especially in distributed systems, argumentation techniques are used to guarantee a good balance between flexibility and stability: each software agent is endowed with more or less sophisticated argumentative skills to interact with other agents and solve specific problems, e.g. information retrieval, automated decision-making, negotiation, etc. As far as interfaces are concerned, argumentation theories provide inspiration on how to design dialogue systems that human users will perceive as natural and convincing, and that will be able to engage in conversations of non-trivial complexity, e.g. providing appropriate replies, asking pertinent questions, offering suggestions in light of the user's needs and tastes, etc.

As discussed above, the assumption "more argument, more agreement" is mistaken as a general rule: in addition, it may also be very misleading, when it comes to argument technologies. Let us start from the application of argument theories to

communities of artificial agents interacting with each other. These agents typically have no special concern for their personal emotional welfare, and they do not care for social image and for being in good terms with their fellows: indeed, they have no feelings that can be hurt, so there is nothing personal at stake in their interactions. Nonetheless, their decision to engage in argumentation is still affected by (i) energetic constraints, so that they should not pursue argumentation if the expected benefits are lower than the likely costs (Karunatillake and Jennings 2005; Paglieri and Castelfranchi in press b), and (ii) the risks of articulation, since exploring at length a given issue may lead to multiply the points of disagreement between different artificial agents. In this case, articulation does not threaten to worsen the mood of the arguers, since they have none, but it may lead to *computational inefficiency*: if the agents lose themselves in the subtleties of prolonged debate, the performance of the system as a whole will be slowed or sidetracked, and this is something both programmers and users are keen to avoid. The right rule in this case is to incorporate strategic considerations in the agent's decision to either argue or let the matter rest, and these considerations should somehow approximate those discussed in section 2: evidential clarity, experiential homogeneity, cognitive similarity, and inherited disagreement.

Acknowledging the dangers of disagreement escalation is even more important when it comes to design users' interfaces based on argumentation technologies. In this area, it is paramount that the interface is capable of eliciting agreement in its users, both as a baseline to ensure smooth interaction in general (users should not get mad at the program), and concerning specific functionalities of the system (users should be willing to accept or at least consider the system's suggestions). The former type of agreement is instrumental to the latter, especially in those cases where (i) the software is supposed to make decisions or suggestions in the best interest of the user, and (ii) this may not always coincide with what the user would do left to his own devices. Expert systems capable of supporting human decision-making constitute very promising applications in AI, but they need to be designed keeping in mind the users' argumentative attitudes. In particular, users should not be subjected to questioning or correction unless this is strictly necessary—and here "necessary" means not only that the user may be about to make a mistake, but also that such a mistake is of some relevance. In human-computer interaction, it is of the outmost importance to include an "agreement strategic manager" as part of the artificial system, to ensure that the user is not bothered all the time with puny arguments or fastidious suggestions, and he is instead best prepared to keep an open-minded attitude towards the system's indications when these are truly relevant. In short, a computer should not be designed to be quarrelsome or pedantic, lest it end up like the Talking Cricket in *The Adventures of Pinocchio*, with an infuriated user throwing a mallet at it.

5. CONCLUSIONS

This paper illustrates the dangers of fuelling disagreement that are inherent in argumentation. After criticizing the idea that argumentative failure simply leaves unchanged some pre-existing difference of opinions (section 1), I described four factors that may cause a more ruinous outcome, i.e. disagreement escalation. The factors considered include epistemological norms of reasonableness, increasing costs of

prolonged debate, level of articulation of the issue under discussion, and socio-cultural expectations of the arguers on each other attitudes (section 2). I insisted that subjects decide whether to argue or not also on the ground of strategic considerations about (i) the likely effect of argumentation on the level of disagreement, and (ii) the consequences that an increase in disagreement might have on their social relation and personal concerns. Nine relevant elements that may factor in this decision were discussed in section 3: strength of one's own arguments, importance of the counterpart's belief, complexity and sensitivity of the issue under consideration, expectations of the counterpart, domain of discourse, dialogical goal of the interaction, power relations between the arguers, and level of publicity of the dispute. Finally, section 4 briefly considered the consequences of this view for technological applications of argumentation theories.

As mentioned before, stressing the dangers of disagreement escalation is *not* the same as endorsing a bleak outlook on the chances of reaching agreement via argumentation. On the contrary, I believe that arguing is often effective in solving disputes and differences of opinion by means of rational persuasion, rather than resorting to violence or simply refusing to engage in any form of confrontation. Nonetheless, the efficacy of argumentation may be undermined by using it too often and in the wrong circumstances, very much like the sharpness of a scalpel is dulled by using it to cut steaks at the dinner table. My suggestion is that the arguers' sensitivity to dangers of disagreement escalation is attuned to *detect potential misuses of argumentation*, and thus avoid them. Of course, this is not a perfect diagnostic instrument: sometimes our reluctance to engage in "dangerous arguments" is due to our own weaknesses (of character, of reasoning, or both), while in other cases the escalation of disagreement is not justified by any reasonable factor, but only depends on the dialectic shortcomings of the arguers (e.g., they may be short-tempered, or trying to cover their poor arguments with a show of indignation). However, imperfect as it may be, sensitivity to disagreement still remains a useful compass in orienting the arguers' strategic decision-making, as several examples discussed in this paper tried to clarify.

Needless to say, much work is yet to be done in this line of research. The picture I outlined here is not necessarily complete or correct. As for completeness, the list of factors determining disagreement escalation, and the catalogue of issues considered by arguers in their decision are open to further integration and amendment. Correctness, on the other hand, will be decided largely on empirical grounds, by carefully observing real-life argumentative practices and further probing the speakers' intuitions about such practices. Interestingly, the two aspects do not need to coincide: it may well be that some factors affect our decision to argue or not with other people (e.g., reluctance to challenge someone in a position of power over us), and yet we resist explicitly acknowledging this influence when asked about our argumentative attitudes. That is, arguers may be unaware of (or unwilling to discuss) some key aspects of their decision-making. Disentangling these features and designing effective ways to investigate them empirically is left to future work. My aim here was more modest, but also instrumental to these larger concerns: if we fail to acknowledge in principle the deep connection between argumentation and disagreement, we will never start looking for proof of it in our everyday disputes.

Link to commentary

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