Arguments from parallel reasoning

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1. Introduction

Argumentation is a co-production by a proponent and an opponent who engage in a critical

examination of their difference of opinion, aiming to resolve it on the merits of both sides, or so

it is assumed in this paper on the dialectic of arguments from analogy. I shall investigate the

consequences of the dialogical view for a particular type of argument from analogy, called

argument from parallel reasoning, that has been discussed in some detail by Woods and Hudak

(1989). I shall be concerned with the characterization of this type of argumentation, as well as

with the norms for evaluating instances of such argumentation. Arguments from parallel

reasoning are analyzed as both case-based and defeasible arguments. The first is taken to mean

that an argument from parallel reasoning can be evaluated without an appeal to a substantial

universal principle different from the underlying abstract argumentation scheme. The latter is

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taken to mean that a critical opponent has the possibility to challenge the argument's conclusion, even after having conceded each of the argument's premises, so that I also need to deal with the question of what use, if any, an argument from parallel reasoning has for a proponent.

Suppose, a proponent contends that we should allow camera surveillance with drones by the Amsterdam police, on account of these drones' cost-effectiveness. Suppose further, that the opponent addressed makes it clear that she acknowledges the drones' cost-effectiveness, as well as the relevance of this consideration, but that she remains, nevertheless, critical towards the proponent's thesis for worrying about intrusions on privacy. In such a case, the proponent may consider it to be expedient to put forward an argument such as: "I happen to know that (or: I would expect that) you consent to cameras on satellites on account of their cost-effectiveness, and despite privacy considerations. Well, reasoning from cost-effectiveness to cameras on drones, despite privacy considerations, is comparable to reasoning from cost-effectiveness to cameras on satellites, despite privacy considerations." The proponent has drawn an analogy, albeit on analogy of a special kind where he compares two dialogical situations, to the effect that if the opponent has been willing, or – if it concerns a hypothetical case – *would* be willing to draw a conclusion in the one dialogical situation, she also should be prepared, on pain of inconsistency, to draw a similar conclusion in the dialogical situation at hand. First, I attempt to conceive of such an argument from parallel reasoning as an example of case-based reasoning, for the reason that it seems implausible and uncharitable to hold the proponent responsible for any universal principle linking, in this example, privacy considerations and cost-effectiveness considerations. The argument's proponent does not commit himself to *more* than there being some relevant similarity in these two dialogical situations. Second, I attempt to explain how such arguments from parallel reasoning can be seen as both being defeasible, in the sense of allowing the opponent the option to challenge the argument's conclusion, even after having conceded each of its regular premises, and yet providing the proponent with a device to bind the opponent to the argument's connection between premises and conclusion.

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Before entering into the issue of how an argument from parallel reasoning is co-produced in critical dialogue (Section 4), I shall, first, elaborate on the argumentation scheme that underlies arguments from parallel reasoning (Section 2), and, second, deal with the importance of criticism as a driving force within dialogue (Section 3). Afterwards, I shall indicate the critical options for any opponent confronted with such an argument and show how such arguments are both case-based and defeasible yet binding (Section 5). Before concluding, I shall illustrate my findings with a famous, but a-typical example of an argument from parallel reasoning, put forward by John Stuart Mill, in favour of the existence of other minds (Section 6).

2. Argument from parallel reasoning

Arguments from parallel reasoning form a special kind of argument from analogy. What I understand by *analogy* is taken from Perelman and Olbrechts-Tyteca, who, following Aristotle, characterize an analogy as a proposition of the form "A is to B as C is to D" (Perelman and Olbrechts-Tyteca, 1969/1958, p. 372). In the numerous and extensive literatures on the topic (Guarini et al, 2009), many purposes are attributed to analogies, a prominent one among them to clarify something. This paper, however, shall be concerned only with argumentative uses of analogy.

Yet, not all arguments from analogy are on a par. I shall distinguish between a ground-dialogical and a meta-dialogical type of argumentation from analogy, and deal with argument from parallel reasoning as kind of meta-dialogical argument from analogy. I consider the following example to be a prototypical example of the ground dialogical kind of argument from analogy. "Elstar apples are sweet. Jonagold apples look like Elstar apples. Therefore, presumably, Jonagold apples are sweet." This example easily fits, what Walton refers to as, the

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basic scheme for argument from analogy: "Generally Case 1 is similar to Case 2. A is true in Case 1. Therefore, A is true in Case 2" (2012, p. 192).[1]

I consider the following to be a prototypical example of the meta-dialogical type: "You ought to define the term *drone* to me in our discussion about police surveillance, because you requested me to define *drone* in our earlier discussion on their military uses." Also the following argument schemes are meta-dialogical: "you should challenge (or alternatively: *withdraw commitment to*, or *concede*) proposition P , because you would be willing to challenge (withdraw commitment to, concede) Q, and P and Q are comparable." In each of these cases, some specific dialogue move is required from the interlocutor in the current dialogical situation on the basis of the interlocutor's acceptance of a comparable move in a comparable dialogical situation. An argument from parallel reasoning fits this pattern, but deals specifically with the dialogical move of accepting an argument's conclusion on account of the argument's premises. [2]

I consider the following to be a prototypical example of an argument from parallel reasoning: "We should allow the Amsterdam police force to use camera surveillance with drones on account of their cost-effectiveness, and despite privacy considerations, for we also allow cameras on satellites on account of their cost-effectiveness, and despite privacy considerations, and these cases are comparable."

My treatment of this special class of arguments from analogy connects with what Woods and Hudak have contended about arguments from analogy generally. What they characterize as argumentation from analogy, *tout cours*, I consider to be the characterization of a particularly interesting subclass of arguments from analogy.

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[1] The analogy appealed to in the second premise can be phrased as: "the way Elstar apples look is to their taste as the way Jonagold apples look is to their taste," and is special in so far as "taste" occurs both in the comparison case as well as in the target case.

[2] Govier distinguishes between *a priori* arguments from analogy, which start from a hypothetical comparison case, and inductive arguments from analogy, which start from an analogue that is non-hypothetical (Govier, 1989, p. 141-142). Meta-dialogical arguments from analogy can both be *a priori* as well as *inductive*, in this sense.

According to these authors:

> "[a]rguments from analogy are arguments by parity of reasoning, so-called. They are arguments about arguments, *meta-arguments*. They argue that two or more target arguments stand or fall together and that they do so because they are relevantly at parity, that they possess similar deep structures by virtue of which they coincide in logical form. The target arguments of the meta-argument are thus *analogues* of each other" (Woods and Hudak 1989, p. 127).

I shall transpose their meta-argumentative view to a full-fledged dialogical setting, so as to embed these meta-dialogical arguments in a setting where an opponent is examining whether she can remain critical – in a consistent and tenable manner – vis-à-vis the proponent's standpoint.[3]

Three comments on Woods and Hudak's theory are in order. First, from the examples they give, it becomes clear that arguments from analogy cannot only support a thesis to the effect that two arguments stand or fall together, but also a thesis to the effect that the conclusion of the one argument stands, due to the virtues of the other argument. Or, for that matter, that it falls, due to the other argument's vices (in which case the result is, what Juthe calls a *refutation by parallel argument*, 2009). Second, they label these arguments meta-arguments, apparently because when writing out the basic structure of an analogical argument, two arguments are mentioned and talked about, rather than merely used:

> "1. Argument A possess a deep structure whose logical form provides that the premisses of A bear relation R to its conclusion. 2. Argument B shares with A the same deep structure. 3. Therefore, B possess a deep structure whose logical form provides that its premisses likewise bear R to its conclusion. 4. Hence, B is an analogue of A. A and B are good or bad arguments, by parity of reasoning, so-called" (Woods and Hudak 1989, p. 127).

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[3] My treatment connects with Juthe's ideas on "refutation by parallel argument" (Juthe 2009), but where his main interest is with meta-argumentative criticism, my focus is on meta-dialogical support.

Third, the deep structure or logical form that is alleged to be identical includes, according to the authors, both deductive patterns as well as non-deductive ones, Thompson's famous violinist analogy instantiating a non-deductive logical form.

With the aim of examining arguments from analogy as a contribution to an argumentative dialogue, I shall give a characterization of meta-dialogical arguments from analogy from the perspective of the theory of argumentation schemes, as developed by Van Eemeren and Grootendorst (1992), and by Walton, Reed and Macagno (2008), and hypothesize that the following argumentation scheme underlies typical arguments from parallel reasoning:

Conclusion:	You should accept proposition S.
Premise 1:	Because, proposition A in dialogical situation C did (or would) convince you of proposition B.
Premise 2:	In the current dialogical situation T you accept proposition R.
Premise 3:	Accepting B on the basis of A in C is comparable to accepting S on the basis of R in T.

Figure 1. The Argumentation Scheme From Parallel Reasoning

Premise 1 presents the *comparison case* (Woods and Hudak, p. 128). Premise 2 might be seen as giving the argument's main reason, for it is R that must convince the opponent of S, the other premises explaining *how* R should convince the opponent of S. Premise 3 presents a meta-dialogical analogy, which could be phrased abstractly thus: *Proposition B is to proposition A in dialogical situation C as proposition S is to proposition R in dialogical situation T.*[4]

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[4] According to a stricter analysis, a meta-dialogical argument from analogy would instantiate two, interlocked argumentation schemes. Argumentation scheme 1: "S, because in the current situation T you accept R, and if in T you accept R then you should accept S." Argumentation scheme 2: "If in T you accept R, then you should accept S, because A in a situation C did (or would) convince you of accepting B, and accepting B on the basis of A in C is comparable to accepting S on the basis of R in T." The conclusions that I shall draw, can easily be

We should deal in some detail with the intended interpretation of Premise 3. First, the comparison premise could be taken to express that the two cases are sufficiently similar. In other words, the similarity between the two cases of reasoning is such that if the opponent's accepts of B on account of A in C, she cannot but accept S on account of R. In that case, the argumentation scheme is not a defeasible one, but any instance, according to this reading, expresses a logically valid argument, in the sense that it would be logically inconsistent to accept the three premises and yet raise criticism against the thesis. Note that, different from what some authors suggest, such case-based (see below for an elaboration of the claim that such an instance is really case-based), rather than principle-based, argument from analogy can be genuinely valid.[5]

Second, Premise 3 can be taken to express that the two cases are in some relevant respects similar, so that the opponent's acceptance of B on the basis of A in C provides a reason to accept S on the basis of R, in the case at hand, albeit not necessarily a compelling reason. In other words, the similarity between the target and the comparison cases is such that the opponent's acceptance of B on account of A is a relevant consideration, and a possible reason to accept S on account of R. Yet, in this version, the argumentation is a defeasible one, in the sense that it is possible for the opponent to accept all premises of an instance of this scheme, including the comparison premise, and yet resist, in a consistent and even plausible manner, the argument's conclusion. Given this reading, the opponent could explain the tenability of her position by indicating a relevant difference between the comparison case and the target case that raises doubts about whether thesis S follows from R.

In my view, it is not a task for argumentation theorists to tell a discussant what argumentation scheme he should adopt. Instead, they should develop repositories of

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made to apply to an account that strives for individual argumentation schemes that remain as basic and simple as possible.

[5] For example, Waller (2001) discusses so-called "deductive arguments from analogy" (and compares them with "inductive" ones), which he understand as having a premise that appeals to a principle, which, translated to the terminology of my Figure 1, would read: "The most plausible reason for believing B is the acceptance of principle P" (p. 201), and any instance of his scheme is deductively valid in so-far as principle P implies conclusion S. As I am interested here in (meta-dialogical) case-based reasoning, I will disregard his principle-based version of argumentation from analogy.

argumentation schemes from which discussants can, as it were, choose their tools, as well as develop procedures from the proper use of these tools. In this paper, I shall deal with the second reading of the comparison premise, without wanting to discredit the other option in any way, in order to see what dialogical procedure fits it, in such a way that the argumentation is of use to the proponent, notwithstanding its defeasibility.

As a consequence, an instance of the above argumentation scheme allows an opponent to accept each of the argument's three premises, and yet to challenge the connection between the set of the three premises and the conclusion in the case at hand. We can implement this critical option by associating each argument with a connection premise that can be challenged. The connection premise will simply be a conditional statement, having the conjunction of the argument's premises as its antecedent, and its conclusion as its consequent, and this usually implicit premise expresses the proponent's claim that a commitment by the opponent to the argument's premises should bring, within the circumstances at hand, a commitment to the argument's conclusion. In our example, the connection premise would read: "If you allow cameras on satellites on account of their cost-effectiveness, and despite privacy considerations, and if camera surveillance with drones for a police force is cost-effective, and if – also - these cases are comparable, then you should allow the Amsterdam police force to use camera surveillance with drones." The connection premise is fully particular, tied to the specific application of the argumentation scheme to the case at hand, and *if* the opponent commits herself to its acceptance, she can no longer consistently accept the three (regular) premises while refusing to accept the conclusion. The distinction between the analogy premise and the connection premise enables the opponent to challenge the application of the argumentation scheme's application in the current situation, without either challenging the analogy between the two pieces of reasoning, let alone that of challenging the appropriateness of the underlying argumentation scheme.

3. Criticism as a driving force

The opponent as a co-producer

An argument, as understood here, is a piece of reasoning that is used by a proponent in an attempt to convince an opponent of his opinion by answering her critical doubts and objections, maintaining that this attempt fits the confines of a resolution-oriented, critical discussion. For example, within the pragma-dialectical theory, argumentation is an attempt to persuade an opponent (*antagonist*) who, within the normative framework of a critical discussion, interprets and evaluates the proponent's (*protagonist's*) standpoint and the arguments he puts forward in answer to previous critical reactions (Van Eemeren and Grootendorst 2004). And within the model for *permissive persuasion dialogue*, a proponent of a thesis tries to construe a complex of reasoning, in an attempt to transfer the opponent's commitment to her initial concessions towards the proponent's thesis (Walton and Krabbe 1995).

Given that the proponent's argumentation is step-wise constructed in response to the critical inquiries by the opponent, it can be expected that the quality of this argumentation is influenced by the choices made by the opponent. Thus, the opponent has a responsibility here. In order to encourage the proponent to develop argumentation that starts from reasonable premises, that employs suitable reasoning schemes, and in which propositions are phrased sufficiently clear, the opponent should take care not to let him get away with unacceptable premises, implausible argumentative connections or vague and ambiguous formulations. Consequently, the opponent cannot remain passive, and should accept responsibility for steering the dialogue in a proper direction. I distinguish between three types of decisions that enable her to influence the development of the proponent's argumentation.

First, it is the opponent who decides what propositions she concedes, either at a preliminary stage of the dialogue or in the course of the dialogue, thereby determining the propositions that the proponent can use as the undisputed starting points of his argumentation. By making these choices, the opponent steers the development of the

proponent's argumentation, and the more so if the proponent is sufficiently responsive, and eager to develop a successful, *ex concessis* argumentation.

Second, it is the opponent who decides what premises and what argumentative connections to criticize. Even a minimally informative challenge of the form "Why so?" directs the proponent in a particular direction by showing him what part of his position stands in need of defence. Walton discussed the responsibility or obligation to raise critical question in response to the proponent's argument as the *burden of questioning* (Walton 2003).

Third, the opponent may decide to inform the proponent about what underlies or motivates her critical stance, thereby giving some directions to the proponent about what kind of argumentation she would consider convincing. She can do so by providing the proponent with, what can be referred to as, a *counter-consideration*. The reasoning thus advanced by the opponent does not constitute argumentation, for it lacks the purpose of developing an *ex concessis* argument aimed at convincing the addressee. Instead, it exemplifies a kind of explanation for why the opponent considers it opportune or apposite to criticize the proponent's proposition, and she may motivate her criticism of a proposition P without taking any responsibility for the denial of P, or even for the proposition that constitutes her counter-consideration. The responsibility to offer counter-considerations, in addition to expressing one's critical stance (for example by a request for argumentation of the form "Why so?") is called the *burden of criticism* (see: Van Laar and Krabbe 2013), and I shall go into some more detail about it, because, first, the opponent can request for an argument from parallel reasoning by means of particular kinds of counter-considerations, and, second, within some situations, the opponent can only challenge the connection premise of an argument from parallel reasoning (and in that way trying to defeat it) by incurring the obligation to provide a counter-consideration that explains why she does not regard the set of premises as sufficient ground for the conclusion.

The burden of criticism

Given this role for the opponent, it is not surprising that she has particular responsibilities, and even obligations, so as to guarantee the soundness of the resolution process. Many of the rules pertaining to the role of the opponent have been examined and formulated by Van Eemeren and Grootendorst in their 15 rules for critical discussion (2004). These rules, however, can be extended by dialogue rules that specify a burden of criticism, i.e., a responsibility or obligation to elaborate on, and motivate one's critical stance, as a supplement to the responsibility to raise criticism in the first place (what Walton calls "the burden of questioning," 2003). The question, thus, is: when has an opponent a responsibility or even a dialectical obligation to offer an explanatory counter-consideration?

Suppose that the proponent asserts that the use of drones by the Amsterdam police force should be allowed, and that in response the opponent offers *tenability criticism*, i.e., she poses a request for argumentation in support of the proponent's thesis, in this case an argument in favour of the correctness of the statement that drones are allowable. In such a situation, the proponent incurs a burden of proof with respect to the challenged proposition. But before discharging his burden of proof, he may first want to obtain information about what motivates the opponent not to accept his statement at face value, so as to enable himself to devise an argument that stands a serious chance at convincing his opponent by being genuinely responsive to her doubts. So, instead of giving a reason in support of the drones immediately, the proponent first puts forward a request for explanation: "Please, explain why you do not accept that drones are acceptable for the Amsterdam police?" A proponent should have a right to pose such a request for explanation, "Explain (Why A?)."

The proposition that the opponent puts forward in explanation of her critical stance is referred to as a *counter-consideration*, "Counter C." In the example, the counter-consideration might be the proposition: "No expert in privacy issues considers police drones acceptable." The opponent need not really *assert* that there is no expert in privacy issues who vouches for police drones, at least not in the sense that she incurs a burden of proof for this proposition. This counter-consideration can be presented by the opponent in two quite different, yet equally non-assertive ways to the proponent. When offering her counter-consideration, the opponent

may stress *her* aim of showing the tenability of her critical position: "As far as you've shown, no privacy expert vouches for it." The very same message, however, can also be expressed more modestly, "How about the privacy experts? What do they say about it?" in which case the opponent, as it were, provides the proponent with a strategic advice, stressing *his* individual aim of persuasion.

In both cases, the appropriate response by the proponent is to refute the counter-consideration, by saying something to the effect that "This privacy expert considers police drones acceptable!," or to refute it by stating that his opinion stands, even if no privacy expert were to vouch for it. It would, however, not be an appropriate response for the proponent to request the opponent to argue in favour of the counter-consideration (a formal dialectical system that implements this norm has been proposed in: Van Laar 2011). Rescher introduced the notion of a "cautious assertion," which clarifies the typical illocutionary force of a counter-consideration. According to Rescher, a cautious assertion of a proposition P, indicated by "†P," stands for: "P is the case for all that you (the adversary) have shown" or "P's being the case is compatible with everything you've said (i.e., have maintained or conceded)" (Rescher, 1977, p. 6). Consequently, it is possibly for the opponent to raise a critical reaction that is highly informative to the proponent by conveying her motives for being critical and thereby giving him strategic advice, without, however, becoming committed to this counter-consideration.

The opponent can be assigned a mere responsibility to provide the proponent with a counter-consideration, if requested, in the sense of it being desirable that the opponent informs the proponent about her position, and makes her contributions more than minimally directive. Because the quality of the dialogue improves if the opponent, in addition to raising a mere challenge, also offers a counter-consideration, so that the proponent is assisted in developing an interesting *ex concessis* argumentation.

As stated above, counter-considerations are relevant for a dialogical theory of argument from parallel reasoning, for two reasons. First, because the opponent can request for such an argument from parallel reasoning by means of particular kinds of counter-considerations. In

line with the speech-act oriented theory of Van Eemeren and Grootendorst, a challenge or critical question by the opponent can best be conceived of as a request for an argument. Given that the opponent's counter-consideration also functions to advise the proponent to put forward an argument of a particular kind, the opponent may add a counterconsideration to her challenge in order to make the request more specific. By using counter-considerations, the opponent can make her request more and more specific, up to the level of requesting for, say, an argument from authority – "Why S?"; "Why S? Says who?"; "Why S? Says what privacy expert?" (the last one being equivalent to "Says who? As far as you've shown, there's no privacy expert who considers it acceptable"). Similarly, critical responses can be specified by the opponent by giving a counter-consideration that encourages the proponent to offer an argument from parallel reasoning. (See for a treatment of the dialogical norms for offering, and for responding to, less specific and more specific requests for argument, Van Laar 2013.)

Second, counter-considerations are relevant to a theory of argument from parallel reasoning, because if the opponent adopts the argumentation scheme From Parallel Reasoning as *prima facie* acceptable, and the proponent offers an instance of that very scheme, then the connection premise of that argument counts as a so-called *presumptive commitment* of the opponent (Krabbe 2001, p. 151). That a proposition P is a *presumptive* commitment means that the commitment is not *fixed*, and that it can be challenged. It also means that the commitment is not *free*, and cannot be challenged without further ado. Instead, if P is a presumptive commitment, the opponent can challenge it, albeit at the expense of incurring the obligation to either explain her withdrawal of her commitment to P with a counter-consideration, if the proponent requests so (or to argue for the appropriateness of withdrawing this commitment to P, if the proponent requests so). Whether a proposition counts as such a presumptive commitment is typically highly dependent on the context of the dialogue. By entering the gym, even a philosophical sceptic incurs a presumptive commitment to having a physical body, whereas in the company of his professionally sceptical colleagues, challenging the existence of your physical body does not force you to explain yourself (cf. Rescorla 2009). Similarly, if in the situation at hand the opponent happens to have adopted the argumentation scheme From

Parallel Reasoning as prima facie acceptable, and she nevertheless challenges the connection premise of an argument that clearly instantiates it, then she must, upon request, provide an explanatory counter-consideration to the proponent. In this way, an adopted argumentation scheme is binding on the opponent in so-far as the opponent, when offered an instance of that scheme, must choose between on the one hand accepting the reasons –if true– as sufficient justification of the conclusion or, on the other, offering a counter-consideration against the argumentative connection.

4. Requesting for an argument from parallel reasoning

Suppose that the proponent states his opinion, by uttering his standpoint "S", that the opponent subsequently challenges it with a fully unspecific request for argumentation "why S?", and that the proponent responds by saying: "explain (Why S?)." Then, the opponent may choose to direct the proponent to present an argument from parallel reasoning. Before turning to the issue of how she may make such a specific request for argumentation, let's examine the issue of why she would want to do so in the first place.

Why wouldn't the opponent request for a more straightforward argument, instead of for requesting for the indirect, roundabout way of directing the attention to a piece of reasoning in a comparable case? Govier suggests an answer when writing that "[t]he trick about analogies – and their charm as well, I think – is that we are often able to see or sense important resemblances between cases without being able to spell them out exhaustively in just so many words" (1989, p. 148). In line with this view, we can expect the opponent to request for an argument from analogy when, first, she surmises that an analogical argument is easier to grasp, either for herself or for the proponent. For one, one of them may not be very knowledgeable in the field, and the use of a well-adapted analogy might appeal to an area where they do have more well-developed intuitions about what to accept on the basis of what.

A different motive is the expectation that a different argumentative strategy (for example offering some universal statement from which the standpoint follows) will happen to be ineffective to the opponent, due to the unacceptability of one of the premises (such as the universal statement) that is needed for such a strategy to work (cf. Juthe 2009, p. 158). Again, an argument from parallel reasoning can be chosen for a similar reason.

Thus, arguments from parallel reasoning can portrayed in a negative way: it is by lack of more knowledge, more useful concessions, higher understanding, more consensus, and the like, that we should rest satisfied with an argument from parallel reasoning. But then, such situations can also be used to polish the value of argumentative analogies, for we might as well state that understanding in a new field, or the generation of new knowledge about a topic may properly commence with recognizing analogous patterns, so that the argument may come off the ground, without the need to appeal to more direct evidence, or to problematic universal claims.

There are various ways in which one may request for an argument from parallel reasoning. I conceive of these requests as challenges accompanied with a counter-considerations, steering the proponent towards discharging his burden of proof in this special manner. Some examples are:

"You know the positions I have defended in our earlier discussions. Why would someone like me accept your thesis S?"

"Why S? As far as you've shown, someone like me can consistently question S!"

"Why would *a* be *B*? With what could I compare *a*?"

"Can you show me how you reason to your conclusion, by comparing it with how I would reason in a parallel case?"

"Why would *a* be *B*? As far as you've shown, *a* is not relevantly similar to anything I accept as *B*." [6]

Suppose, a philosopher adopts the role of the proponent and defends, against his critical opponent (either a sceptical colleague, or he himself in his sceptical moments) that some person B has a mind. The opponent, at a loss of what kind of straightforward argument could convince her, makes a request for an argument from analogy: "Can you show it to me, by parity of reasoning?" Or she may even do some of the creative work for the proponent: "I have become convinced of myself as having a mind. Can you show me how I can reason, in a similar fashion, to your conclusion that this person B has a mind?"

When compared to a request for an argument from expert opinion (or for another straightforward argumentation scheme), a request for an argument from parallel reasoning is special. As we have seen, an argument from analogy makes reference to the reasoning in a comparable dialogical situation. As a result, one way of posing a request for an argument from analogy could be phrased thus: "I wouldn't know what kind of argumentation would convince to me, but please, present me with a convincing application of some argumentation scheme or other, so that I get some hunch about the kind of reasoning that could lead me to accept your current conclusion." Due to the meta-dialogical character of the argumentation scheme from parallel reasoning, it deserves a special position in any future classification of argumentation schemes.

5. Critically testing an argument from analogy

Given that premise 1 in the argumentation scheme From Parallel Reasoning (see Figure 1) mentions the reasoning in the comparison case, it is possible for the opponent to focus either

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[6] Other terms that are useful for requesting for an analogy, or for making it clear that such a request is being complied with are: x is similar / parallel / corresponding to y, x resembles / correlates with / relates to y, there is a kinship between a and b, a and b are kindred / cognate / equivalent.

on the premise (or on one of the premises) of the reasoning in the comparison case, as well as on the connection between premises(s) and conclusion in the comparison case, thereby giving rise to two quite distinct types of criticism. The more premises, and the more steps of reasoning, the more points of criticism are to be distinguished when targeting premise 1. Since each of these points of criticism concerns, albeit in a different way, the acceptability of premise 1, I categorize them as tenability criticisms.

Tenability criticism focusing on premise 1, by questioning the connection between premises and conclusion in the comparison case:

> Why would proposition A, in a dialogical situation C, convince me of proposition B?
>
> For all you've shown, A might be true and B false. You need to convince me that A would convince me of B, within situation C.

Tenability criticism focusing on premise 1, by questioning the tenability of the premises in the comparison case (only available if the dialogical situation if not hypothetical):

> Why would I accept proposition A, in a dialogical situation C?
>
> For all you've shown, A might false. You need to convince me that A, if you want me to accept that I would have become convinced of B on account of A, within situation C.

Tenability criticism, focusing on premise 2:

> Why would I accept proposition R?
>
> Your assumption is wrong: I do not yet accept R. For all you've shown, R is false. What's your argument for R?

Tenability criticism, focusing on the comparison premise (Premise 3), in short: *comparison criticism:*

> Why would accepting B on the basis of A in C be comparable to accepting S on the basis of R in T?

For all you've shown, accepting B on the basis of A in C is not in any relevant manner similar to accepting S on the basis of R in T.

In Section 2, I stipulated that premise 3 expresses that the two cases are in relevantly similar, but without necessarily being sufficiently similar. Consequently, an instance of this scheme is defeasible, and allows the opponent to accept each of its three premises and yet resist to accept its conclusion on ground of taking into account the possibility that S is false. Consequently, there is room to accept premise 3, and yet to challenge the connection premise.

Connection criticism:

Why would I accept S, if (a) proposition A in a dialogical situation C convinced me of accepting proposition B, and if (b) I accept proposition R, and if also (c) accepting B on the basis of A in C is comparable to accepting S on the basis of R in T?

For all you've shown, I need not accept S, even if proposition A, in a dialogical situation C, convinced me of accepting proposition B, and if I accept proposition R, and if also accepting B on the basis of A in C is comparable to accepting S on the basis of R in T.

The distinction between tenability criticism, focusing on the comparison premise (premise 3) and connection premise, could, in the drone case, amount to the following:

Comparison criticism:

Agreed, drones are cost-effective for the Amsterdam police force. However, this is not a relevant consideration that helps you to convince me to accept drones for this police force. For this is a sensitive issue of public policy rather than a commercial decision.

Connection criticism:

Agreed, cost-effectiveness would could be a reason to accept drones for the Amsterdam police force. However, though comparable in relevant respects, there are also some relevant dissimilarities between the drone and the satellite cases. For one, I genuinely doubt that we can entrust the Amsterdam police force with the drone technology. For

another, the privacy consideration in the case of police drones is simple more weighty as compared with those in the case of satellites.

Finally, the opponent may want to resist the use of argumentation from analogy by the proponent. She may consider this kind of argumentation for the kind of issue too weak, too indirect, or institutionally inappropriate. I label this kind of criticism *scheme criticism* (Van Laar 2011):

Scheme criticism:

Why would I accept any instance of an argument from analogy?

As far as you've shown, any argument from analogy is unreliable.

Two questions can now be answered. First, of what use is this defeasible way of arguing for a proponent? Let us consider the critical options in a situation where the opponent has requested more or less explicitly for an argument from parallel reasoning. Then we can expect the opponent to have committed herself to the *prima facie* acceptability of the argumentation scheme From Parallel Reasoning. As a consequence, in the discussion at hand the opponent scheme criticism focused at this very scheme would be inaccessible to her. In addition, the connection premise of any instance of this scheme would count as a presumptive commitment on her side. Given that arguments from analogy are defeasible, the opponent must be able to challenge such a connection premise, thereby trying to defeat the argument, albeit at the expense of incurring the obligation to *explain* her criticism with a counter-consideration, if the proponent requests so. If the opponent had, however, put forward a less specific challenge, the proponent probably would not have these advantages. Consequently, though highly defeasible, argumentation from analogy can be specially expedient for a proponent if the opponent is prepared to adopt the underlying argumentation scheme. Because, if the opponent is unable to offer any adequate explanation of her challenging the connection premise, or if she is but the

proponent manages to refute the counter-consideration, then the proponent should have it his way.

Second, is argumentation from parallel reasoning, thus analyzed, genuinely case-based, or does it in some hidden way appeal to a universal claim? Each of these critical points, with the exception of scheme criticism, pertains to the target case, to the comparison case, or to the specific relations between them. In line with what Govier (1989, p. 147-148) and Juthe (2009) have contended, it is possible to evaluate an argument from analogy without raising the issue of the acceptability of some universal claim that would underlie the similarity of the two cases, for the reason that the proponent does not appeal to any specific universal claim. Of course, the proponent may choose to put forward such a substantial universal claim in response to a connection criticism, alleging that this specific connection follows from a more general truth. (In a very specific sense, therefore, I agree with Govier's idea that such a universal claim is *implied*, although not *assumed* or *presupposed* or *premised*, by an argument from analogy.) But then, he may also try to support the connection premise in a different way, being able to derive it from other particular propositions. Or, it may be the case that the opponent was presumptively committed to the connection premise but unable to explain her subsequent resistance to it, so as to enable the proponent to resolve the difference of opinion in favour of his position without supporting the connection at all.

Now that I have dealt with the various points of criticism of this kind of argument from analogy, I will turn to a more involved example of argument from analogy.

6. Mill's other minds argument

I shall consider Mill's famous argument from analogy used in support his standpoint that other people have feelings (a mind). Though clearly making use of an analogy, the example much less clearly contains an argument, at least in the sense of an attempt to convince some addressee. One reason of choosing this example is to show that the dialogical account of arguments from

parallel reasoning is quite flexible, and also is useful for analogical reasoning that, at least at first sight, does not involve two disputants involved in an argumentative conversation.

Mill's argument can, apparently, be used against the persona in anyone who feels the force of other-minds scepticism:

"By what evidence do I know, or by what considerations am I led to believe, that (…) the walking and speaking figures which I see and hear, have sensations and thoughts, or in other words, possess Minds? (…) I conclude it from certain things, which my experience of my own states of feeling proves to me to be marks of it. (...) I conclude that other human beings have feelings like me, because, first, they have bodies like me, which I know, in my own case, to be the antecedent condition of feelings; and because, secondly, they exhibit the acts, and other outward signs, which in my own case I know by experience to be caused by feelings. I am conscious in myself of a series of facts connected by an uniform sequence, of which the beginning is modifications of my body, the middle is feelings, the end is outward demeanour. In the case of other human beings I have the evidence of my senses for the first and last links of the series, but not for the intermediate link. I find, however, that the sequence between the first and last is as regular and constant in those other cases as it is in mine. In my own case I know that the first link produces the last through the intermediate link, and could not produce it without. Experience, therefore, obliges me to conclude that there must be an intermediate link; which must either be the same in others as in myself, or a different one: I must either believe them to be alive, or to be automatons: and by believing them to be alive, that is, by supposing the link to be of the same nature as in the case of which I have experience, and which is in all other respects similar, I bring other human beings, as phænomena, under the same generalizations which I know by experience to be the true theory of my own existence." (Mill, 1979)

Mill's argument in favour of the existence of other minds is normally referred as his *argument from analogy* (Avramides, 2001, p. 5). One preliminary comment. The text is a kind of a

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soliloquy, suggesting that any sceptic who starts investigating the issue of whether or not others have minds, should by such reasoning of the "I" persona come to the conclusion that other minds exist. Such internal reasoning might be seen as quite different from the kind of dialogue that I have assumed to be essential to argumentation. However, the dialogical account must be understood so as to include at least those kinds of reasoning that exhibit some kind of conscious reflection, rather than mere thinking. The terms *proponent* and *opponent* refer to dialogical roles, and one individual can play the parts of both roles. Thus, in those cases where the reasoning individual is examining whether or not she ought to be persuaded of the acceptability of a particular proposition on grounds she herself considers reasonable, can well be analysed with the concept of a critical dialogue.

The argument from analogy might be reconstructed as a ground-dialogical argument from analogy, along the following lines: "My first and last link stand to my intermediate link as another person's first and last link stand to his intermediate link. Well, my intermediate link is constituted by a causally connecting mind. Therefore, his intermediate link is constituted by a causally connective mind." However, we can add detail to the argument from analogy by conceiving of it as instantiating the Argumentation Scheme From Parallel Reasoning. In order to bring out all features of the dialogical theory of argumentation from analogy, I slightly modify Mill's argument so as to deal with a particular person B.

Conclusion: I (in the role of opponent) should accept that person B's regular and constant sequences of modifications of his body and outward demeanour are causally mediated by a mind.

Premise 1: When I examine how the regular and constant sequences of the modifications of my body relate to my outward demeanour, I find that I experience them as causally connected by my mind, and on that basis I conclude that they are, really, causally mediated by my mind.

Premise 2. I accept that B has regular and constant sequences of modifications of his body and outward demeanour.

> Premise 3. My reasoning from the regular and constant sequences of the modifications of my body and my outward demeanour to them being causally mediated by my mind is comparable to my reasoning from B's regular and constant sequences of modifications of his body and outward demeanour to B's sequences being causally mediated by mind.

Figure 3. Mill's argument from analogy as an instance of the Argumentation Scheme From Parallel Reasoning

What kinds of criticism can be raised against this argument, if we follow the suggestions of the previous section (skipping scheme criticism)?

Tenability criticism, focusing on premise 1, by questioning the tenability of the premises in the comparison case:

I am not convinced, as of yet, that there exist regular and constant sequences of modifications of my body that relate to my outward demeanour. As far as I (in the role of proponent) have shown, these patterns do not exist.

Tenability criticism, focusing on premise 1, by questioning the connection between premise and conclusion in the comparison case:

I am not convinced, as of yet, that when I have found that I experience the regular and constant sequences of the modifications of my body and my outward demeanour as causally mediated by my mind, that, really, they *are* causally mediated by mind. As far as I (in the role of proponent) have shown, the experience might be illusory, and nothing can be deduced from it at all.

Tenability criticism, focusing on premise 2:

For all that you've shown, B has no regular and constant sequences of modifications of his body and outward demeanour.

Comparison criticism:

For all that I (proponent) have shown, the two cases of reasoning are not relevantly similar. For one, I consider my own judgements regarding whether I have a mind as incorrigible (because, if I conclude that I have a mind, I must have a mind, by necessity), but I do not regard my judgements regarding B's having a mind as incorrigible. Consequently, I cannot exclude the possibility that I am exceptional in having a mind.

Connection criticism

Without wanting to do detract from each of your regular premises' merits, I still want to resist your conclusion. To explain: I seriously take the possibility into account that this person B, is not really a person at all. Even if I were to concede your comparison premise, B might be an exception, for did you notice that he always reacts in a somewhat inflexible, if not machine-like manner, quite unlike myself. So I still wonder: could he possibly be a mindless robot?

To conclude my treatment of Mill's argument, I would like to point out that the meta-dialogical reconstruction has the advantage of making visible many more possible points of criticism as compared to a ground-dialogical reconstruction, due to its focus on the internal reasoning in the comparison case. From the perspective of critical testing, it would be preferable to interpret an argument from analogy as instantiating a meta-dialogical version if the textual evidence allows it, because it generates more detailed critical questions. And if the proponent is capable of specifying his argument so as to transform his ground dialogical argument into a meta-dialogical argument from parallel reasoning, we should applaud it, for inviting more detailed criticism, and thus facilitating the critical examination of the argument. Note, however, that a revision of his ground level argument from analogy so as to lead to a more straighforward kind of reasoning would, possibly, give an even better result.

7. Conclusion

In this paper, I have examined arguments from parallel reasoning as a special type of meta-dialogical argument from analogy. It has been contended that such arguments can be dealt

with as instances of an argumentation scheme, giving rise to a specific set of evaluative questions, such that the resulting arguments are both case-based and defeasible yet profitable to their proponents. By applying the framework to Mills argument from analogy it was shown how the dialectical theory of arguments from parallel reasoning can also be made to apply to analogical reasoning that does not wear its dialogical character on its sleeves.

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