ISSA Proceedings 2014 - A General Rule For Analogy

Abstract: The following contribution attempts to introduce a number of candidate descriptions that can render an argument from analogy deductive. The starting point is the much-discussed notion that one of the argument's premises could comprise a 'general rule' which helps guarantee the conclusion's necessity. Taking Wohlrapp's (2008) pragmatic approach to the issue, the general rule in analogy can be described in terms of its contribution to satisfy individuals' need of orientation.

Keywords: argument from analogy; argument structure; deductive analogy; general rule; orientation; pragmatism; Wohlrapp

1. The rule issue with arguments from analogy

Imagine, Anna is a student who comes to see her professor during office hours saying

1. I need an extension on my paper

and

2. My classmate got an extension, too .

Evidently, what Anna is using here is an argument from analogy: it crucially relies on relevant similarity of two cases and it obviously comprises the characteristic general structure known at least since Aristotle (2003, 1131f):

A:B=C:D

A and B are properties of case I (Anna's classmate's case) and C and D are properties of case II (Anna's case). Anna lets us know that her classmate (A) got an extension (B) and that Anna herself (C) should get an extension (D). But how does this work?

Often it is hard to prove what can be taken to belong to analogical argumentation in terms of form. Arguments from analogy are known for their pervasive logical

structure. Parameters for assigning a certain category generally involve what element (A, B, C, D) or which relation of elements (similarity, causality, probability, necessity, etc.) is being backed up, which of these are used for the backing up and in which way. For figurative analogy, for example, elements and relations might even be invented and represented so as to fit logical and semantic conditions in order to make a point. In finding out how analogy works in a specific case, textbooks and research on informal logic also recommend the application of critical questions (cf. amongst others Walton, 2006; Tindale, 2007; van Eemeren & Grootendorst, 1992).

Here is an example: According to Walton, Reed & Macagno (in the following Walton et al., 2008), Anna's professor might ask, whether case I and II are relevantly similar and in which respect. Such questions about relevant similarity are commonly held to be the most important critical questions of the argument's scheme. Anna might answer 'yes', and when asked for a backup, she might say something like: Well, my classmate really needed the extension. And I really really need it, too. Now if the professor wanted to know explicitly, whether there is a rule at work here, the professor could ask Anna something like this: 'So, if somebody really needs an extension, then this person should get it? Is that what you are saying?' Anna might then go on and specify the case of her classmate, saying that her classmate was not personally liable for the delay in case I and that Anna herself also got held up on the way of meeting her deadline due to some incident she was not responsible for. The professor then, taking the next turn, might ask: 'So if somebody really needs the extension and was not personally responsible for the delay, then the person should get the extension? Is that then what you are saying?' And again, Anna might go on specifying further characteristics and the professor might go on committing her to a rule and so on.

The problem here is not so much a problem of logic: If such a rule is applied correctly conforming to the formal standards of deduction, the argument is valid. The problem lies in the question whether the rule is justified as something we are allowed to even expect from analogical reasoning: May analogies be pinned down to have that rule?

Analogical arguments are generally either called inductive or figurative (Govier, 1987; 1989; see also Garssen & Kienpointner, 2011 for a current view). But analogy can also be deductive if the truth of its conclusion follows necessarily from true premises. The central question of my contribution asks from a

pragmatic perspective whether and under which conditions analogies can be held to comprise a rule-like major premise that might help guarantee such necessity.

Within a kind of negotiation on whether there is a rule and what it might contain (e.g. one similar to the adjustment Weinreb, 2005, p. 31 suggests), the professor seems to commit Anna to a formal standard also implicating that there should be a rule of a certain content and that it should be followed.

Anna's point, on the other hand, seems to rely entirely on the classmate's case and on its similarity to her own. In this respect, her reasoning appears to be so different from the professor's that it becomes hard to believe, they are both using and negotiating the same argument scheme: Like any analogy, Anna's argument appears to her as the plausible way to go *presumably because* she lacks a better one. She simply needs the extension. The only thing she has got is some analog case of a classmate of which she might not even be sure whether it is an appropriate role model for her own.

Because analogies lack explicit formal requirements inherent to inductive and deductive schemes and precisely for the reason analogies lack the explicit rule, they are called fallacies on formal and deductive accounts, like e.g. Lumer's (2000; 2011). For the same reasons they are weak and defeasible arguments in informal accounts, like Walton's et al. (2008). And taken in one account with striking common traits analogies share with argumentative forms of classification, precedence, comparison, appeal to authority and others, the absence of the rule also allows analogies to appear in a hard to define category of arguments reasoning by similarity (cf. amongst others van Eemeren & Grootendorst, 1992; Hoppmann, 2009).

Because having the rule is clearly a sign of formal quality, it might righteously be expected during a conversation and even analogy can turn out to have it during a testing procedure in a dialog. On the other hand, not having the rule can also be part of the conventional meaning of putting forward an argument from analogy: Who ever argues from analogy then seems to state implicitly 'I don't know any better' or even: 'I don't need to know any better'.

Therefore, we come to a first intermediate conclusion: When analyzing analogy, logical structure does not alone suffice in finding out what Anna is doing here. We need to get to know more about what standards and conventions of language use

are involved and applied and to what end this is the case as Anna brings forth her argument from analogy.

2. The goal of argumentation and its role in reconstruction

At least since the 1950s purely formal argument analysis has been flanked by argument analysis including context (at least the works of Toulmin, 2003 (1958) and Perelman & Olbrecht-Tyteca 1971, (1958) are to be mentioned). And at least since the 1980s the notion of argumentation as speech acting has both become prominent and proven useful for analyzing and describing language used for argumentation. Context and function of argumentative talk have been taken to play a key role in reconstructing the form and content of (parts of) arguments. Looking at what is presumably the most influential theory of argumentation today, it appears, that bringing forth an argument entails speaking with a purpose: In Pragma-Dialectics (cf. van Eemeren & Grootendorst, 1984; 2003) resolving a difference of opinion is the one master-goal of a critical discussion. Like Searle (1969; 1985) and Grice (1957; 1967), both of whose insights van Eemeren & Grootendorst use in their framework, Pragma-Dialectics also aims to make explicit what remains implicit when an utterance is made. Grice and Searle start with the propositional content of an utterance, and ultimately relate it to the speakers' intention: Intentional States of the mind set up conditions for a Speech Act to carry meaning. But although Pragma-Dialectics draw from Grice and Searle, their suggested reconstruction apparatus identifies implicit premises slightly differently: Reconstruction does begin with the propositional content of an utterance, too. Then the reconstruction process works along the normative criteria of Pragma-Dialectics. But every step in the process and the result of the reconstruction as a whole is ultimately warranted by the normative goal of any argument within Pragma-Dialectics: The resolution of a difference of opinion.

So talking about argumentation as speech action, at least two conditions apply both for the evaluation of arguments and for the reconstruction of arguments uttered in context. These conditions are also rooted in Searle's and Grice's accounts of meaning. In matters of argumentative speech they can be found within the Amsterdam approach and others: First, there must be a starting point for the reconstruction based on the actual utterance made. Second, we have to relate this raw material of explicit language used to the goal of the utterance made. As the goal is set, the utterance's conditions of success are set. Despite the striking similarities between Argumentation Theory and Speech Act Theory, [i]

the reconstruction of implicit premises has proven tricky when specific goals are set and assumed by the analyst and so applied within the reconstruction process. Criticism includes this might not do justice to the actual goals people follow when communicating and even influence the outcome of the reconstruction process: People tend to spell out reasoning for various purposes which does not necessarily include asserting something or even convincing somebody, explaining, arguing, etc. (Jacobs, 1989, p. 352).

Now I would like to briefly demonstrate that Wohlrapp's account of argument can fulfill both necessary conditions for reconstruction and that his approach might be a suitable candidate framework for reconstructing implicit parts of argumentation, too. In addition to that, this might allow us a fresh perspective on the rule issue from analogy.

3. Argument-evaluation in terms of orientation

According to Wohlrapp (2008, p. 86), it is orientation that we seek when doing science, when spelling out reasoning or arguing in any professional or everyday context (Wohlrapp draws from and reformulates what had been started as the pragmatist endeavor around the beginning of the 20th century). And orientation is needed wherever our practice fails or where it can reasonably be expected to fail. We then identify the problem as well as we can; such a problem might involve finding the way to the station in an unfamiliar city or an inconsistency within our set of beliefs; it might involve assembling a Swedish shoe rack, getting an extension on a seminar paper from a professor, or, if we are the professor, finding out whether an extension is justified. Such a lack of orientation, according to Wohlrapp (2008, p. 123), yields the forming of a theory: a theory of how a problem might be solved satisfactorily, of what might satisfy the need of orientation. A theory will be relevant and therefore count as provisionally true in as much as it succeeds in practice.

How to form such a theory? Sticking with the examples just mentioned, such a theory might just contain how to exactly hold the screwdriver when assembling the rack. The content of the theory need not only be suitable for the goal of action. We also make use of what we know, to a great deal, from experience. We use knowledge of what has already worked in the past: 'How did I get the extension last time?' 'What worked out fine for me and for others in similar cases?' 'Was the extension given to me right away or did I have to go into details argumentatively?'; 'Why?'; Why not?': In this way, we do not only form a theory of

what might work now but also why it might work now.

How to evaluate the theories? The theory is put into practice and is then judged by its degree of success. This includes that the actual outcomes of practice are weighed against the expected outcomes of it. Whether an irregular verb in Italian is used correctly, we can tell by being understood, or almost correctly understood, or not understood at all, etc. Good arguments are theories, which succeed when put into practice. At best, they suffice in guiding our present and future practice. When our need of orientation contains a rule for deduction and all we get is a vague reference to a remotely similar case, we are unsatisfied. If, on the other hand, we are in a hurry and all we need is a rough clue, a vaguely put analogy might be just fine.

Speaking of our two necessary conditions for reconstruction mentioned earlier, Wohlrapp might not need the notions of 'propositional content' and 'conventional meaning'. In finding out, whether an utterance meets the need of orientation, people would make use of successful experience with similar stretches of speech in similar contexts. Therefore, both necessary conditions are fulfilled within Wohlrapp's framework.

4. A lack of orientation: who needs the rule and what is it needed for?

In line with Wohlrapp's view, two individuals engaging in argumentative discourse have individual needs of orientation and individual knowledge which they can involve in figuring out whether an utterance satisfies the need of orientation or not. Translated into our example, we can then assume, that also Anna and her professor each have their own need of orientation. Say, for example,

Anna

would like to get the extension; she also

would not like to make too bad an impression on her professor given that she is about to miss her deadline; she also

still needs to go shopping for groceries that afternoon and the shops are about to close and

for politeness reasons she wants to avoid talking about any private issues of her classmate who got the extension in case I.

The professor on the other hand wants to help Anna out in some way but still

fears that even more students could claim an extension without any specific reasons,

cannot recall what warranted the extension in case I and wants to find that out;

has other classes to prepare that day and

would like to find a reliable solution in Anna's case which will likely save her time in the future.

None of these possible goals of Anna and her professor are necessary or sufficient for absolute certainty about the rule's form or content or even about whether it 'is there' or not. More than that, the rule's form and content seem to depend on whether and to which degree the interlocutors make use of it. Within Anna's and the professor's individual search for orientation, the rule can play at least three roles.

Firstly, it can be part of the need of orientation. For example: Both Anna and the professor might like a solution for Anna's case which applies now and in the future when other students have a similar concern. Both might also want to set an appropriate precedent: The rule should now exclude cases which shall be excluded in the future and the rule should now capture and include cases, which shall allow for the extension in the future. This might motivate both or either of them to ask the other a couple of straightforward questions about the relevant similarities of case I and case II in order to abstract a rule from them.

Secondly, the rule might be part of the theory, provisionally set up to satisfy the need of orientation. This holds both for Anna and for the professor as well. Both might identify relevantly similar characteristics in both cases and form a rule like the following:

Based on the relevance of properties 1... n in case 1, if another case has properties

1... n, then an extension can provisionally count as justified.

The professor would probably have a special interest in fine-tuning the properties in terms of quantity and quality: If the rule becomes too general, it will warrant an entire lot of unwanted future extensions. If it is tied by very specific properties almost exclusively inherent in case I and II, the rule might unfavorably exclude relevant future cases. Also the sheer number of properties needs to come in

handy for taking decisions quick and easy while still maintaining a favorable level of decision quality. Doing all this, the professor might follow a complex agenda, which might involve the appraisal of Anna's argument at hand in order to weigh the pros and cons of the rule in the light of predictable future cases and in the light of Anna's case, including assumptions about Anna's need of orientation.

Of course, Anna can recognize as well that a rule might be needed because each interlocutor has her own need of orientation and also makes assumptions of what the need of the other person could be: Anna might therefore include the rule in her argument, too. And she could even purposefully not include it for strategic reasons, for example.

Thirdly, the rule might be part of a person's knowledge and serve forming a suitable theory. Anna and her professor might have made the experience that in certain contexts transparence of argument structure is required: in decisions involving great sums of money, for example, in legal decisions, etc. When asking for an extension, Anna might have just not thought, this is one such context and the extension to be not such a big deal. The rather blunt remarks: 'My classmate got it, too' and 'I really need it' might have satisfied her need of orientation in the beginning. Later, she finds out, her need of orientation must conform at least to some degree with that of the professor in order to find a solution they are both satisfied with.

5. Conclusion

In the first bit, I described roughly, what the rule-issue in arguments from analogy is about. Then I was able to show that two aspects necessary for reconstructing parts of arguments, which are speech acts, are fulfilled by Wohlrapp's notion of orientation. Therefore it might generally be a suitable candidate framework for reconstructing implicit parts of arguments. More precisely, the general rule in analogy can be described in terms of its contribution to satisfy the individuals' need of orientation. The rule can be part of the orientation needed, it can be part of the provisional theory put into practice and it can be part of the knowledge that serves individuals in forming such a theory. Therefore the question: 'Does every analogy have such a rule?' can be plausibly rephrased as: 'Does the individual's need of orientation require the analogy to have the rule?'.[ii] If so, the argument can draw additional strength from its content. Additionally, this contribution has hinted at some future opportunities for research including advantages and disadvantages of Wohlrapp's account

compared to Pragma-Dialectics and problems of negotiating the shared need of orientation by interlocutors.

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NOTES

- i. Cf. Budzynska & Reed (2011). More recently, bridges between the theories of argumentation and speech action have been the focus of intensive work again, see Budzynska, van Eemeren & Koszowy; Snoek Henkemans; Goodwin (all in Święczkowska & Trzęsicki (ed.), 2014).
- **ii.** In staying consistent with Wohlrapp's overall approach, this change might be even necessary, namely to avoid a logicistic ("logizistische") reconstruction (cf. Wohlrapp a.o. 2008; 1999).

References

Aristoteles (2003). *Nikomachische Ethik*. Translated by F. Dirlmeier. Stuttgart: Reclam.

Budzynska, K. & Reed, Ch. (2011). *Speech acts of argumentation*. Inference anchors and peripheral cues in dialogue, Association for the Advancement of Artificial Intelligence (www.aaai.org).

Eemeren, F. H. van & Grootendorst, R. (1984). *Speech acts in argumentative discussions*. A theoretical model for the analysis of discussions directed towards solving conflicts of opinion. Dordrecht, Cinnaminson: Foris.

Eemeren, F. H. van & Grootendorst, R. (1992). *Argumentation, communication, and fallacies*. *A pragma-dialectical perspective*. Hillsdale, New Jersey: Erlbaum.

Garssen, B. & Kienpointner, M. (2011). Figurative analogy in political argumentation. In E. Feteris, B. Garssen, F. Snoek-Henkemans (Eds.), *Keeping in touch with Pragma-Dialectics* (pp. 39-58). Amsterdam: Benjamins.

Govier, T. (1987). *Problems in Argument Analysis and Evaluation*. Dordrecht: Foris.

Govier, T. (1989). Analogies and Missing Premises. In *Informal Logic*, 11, 3, 141-152.

Grice, H. P. (1957). Meaning. In The Philosophical Review, 66, 377-88.

Grice, H. P. (1967). *Logic and conversation*. The William James lectures. Harvard: Harvard University.

Hoppman, M. (2009). The rule of similarity as intercultural basis of defeasible Argumentation. In Ritola, J. (Ed.), *Argument Cultures: Proceedings of OSSA 09*, CD-ROM (pp. 1-14). Windsor, ON: OSSA.

Jacobs, Scott. (1989). Speech Acts and Arguments. In: Argumentation 3, 345-365.

Lumer, Christoph. (2011). Argument schemes an epistemological approach. In Zenker, F. (Ed.) *Argumentation. Cognition and community*. Proceedings of OSSA 10, CD-ROM (pp. 1-32). Windsor, ON: OSSA.

Lumer, Christoph. (2000). Reductionism in Fallacy Theory. In: *Argumentation* 14, 4, 405-423.

Perelman, C. & Olbrechts-Tyteca, L. (1971). *The New Rhetoric. A Treatise on Argumentation*. Translated by J. Wilkinson and P. Weaver. Nachdruck der ersten Aufl. 1958. Notre Dame, Ind.: University of Notre Dame Press.

Searle, J. R. (1969). Speech Acts. Cambridge: CUP.

Searle, J.R. (1985). *Intentionality. An Essay in the Philosophy of Mind*. Cambridge: CUP.

Święczkowska, H. & Trzęsicki, K. (Eds.) (2014). Studies in Logic, Grammar and Rhetoric 36.

Tindale, C. W. (2007): Fallacies and argument appraisal. Cambridge: CUP.

Toulmin, S. (2003). *The uses of argument*. Reprint of the first edition 1958. New York: CUP.

Walton, D. N. (2006). Fundamentals of critical argumentation. In D. N. Walton & H. V. Hansen. (Eds.), *Critical reasoning and argumentation*. Cambridge: CUP.

Walton, D. N., Reed, C. & Macagno, F. (2008). *Argumentation Schemes*. New York: CUP.

Weinreb, L. L. (2005). *Legal reason. The use of analogy in legal argument.* New York: CUP.

Wohlrapp, H. (2008). Der Begriff des Arguments. Würzburg: Königshausen.

Wohlrapp, H. (1999). Jenseits von Logizismus und Zweckrelativismus. Zur Rolle der Logik im Argumentieren. In $Dialektik\ 1$ (pp. 25-36). Hamburg: Meiner.