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Ordinary Language Users' Assessments of Misuse of Argument Schemes

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ABSTRACT: In a series of experimental studies we tried to answer the question whether and to what extent the different types of fallacies that theoretically speaking are a violation of the argument scheme rule, are seen as unreasonable by ordinary language users. Of each of the three main types of argument schemes (i.e. symptomatic argumentation, causal argumentation and comparison argumentation) one or more misuses were investigated. In this paper the experimental results pertaining to the *argumentum ad consequentiam*, the *argumentum ad populum*, the slippery slope and the fallacy of the false analogy are discussed.

Keywords: ad consequentiam, ad populum, fallacies, false analogy, pragma-dialectics, slippery slope

1. CONCEPTIONS OF REASONABLENESS

In our comprehensive empirical research project 'conceptions of reasonableness' we attempt to determine to what extent the norms ordinary language users apply in judging argumentative moves converge with the pragma-dialectical rules for critical discussion. Do ordinary language users perceive rule violations as unreasonable or, in other words we ask what do they think of fallacious moves in a discussion?

In the pragma-dialectical argumentation theory, argumentation is seen as part of a procedure aimed at resolving a difference of opinion concerning the acceptability of a view or standpoint. The moves made by the protagonist of the standpoint and those made by – or ascribed to – the real or imaginary antagonist in the discourse are regarded reasonable only if they can be considered as a contribution to the resolution of the difference of opinion. In an ideal model of a critical discussion the pragma-dialectical theory describes a discussion procedure that specifies the four stages an argumentative discussion must go through. There is a 'confrontation' stage, in which a difference of opinion manifests itself. There is also an 'opening' stage, in which the procedural and material points of departure for a critical discussion about the standpoints at issue are established. In the 'argumentation' stage, the standpoints are challenged and defended. And the critical discussion closes with a 'concluding' stage, in which the results of the discussion are determined. In order to comply with the dialectical norms of reasonableness, in all four stages the speech acts performed in the discourse have to be in agreement with the rules for critical discussion. If they are not, then they may be considered fallacious.

The different rules for critical discussion derive their 'problem validity' from the fact that they are instrumental in resolving the difference of opinion. To resolve a difference of opinion, however, the rules must, besides being effective, also – at least to a certain extent – be acceptable

to the parties involved in the difference: they should be intersubjectively approved in order to be 'conventionally valid.'

In our research project we systematically study each of the four discussion stages by examining violations of a specific discussion rule. For the confrontation stage we examined violations of the freedom rule; for the opening stage we examined violations of the burden of proof rule; for the concluding stage we examined violations of the closure rule. In this paper we focus a central rule that pertains to the argumentation stage: the argument scheme rule. The main questions are: what do ordinary language users think of violations of this rule? Do they think that every single violation is unreasonable? Are all violations judged the same or are some more strongly considered unreasonable than others?

2. THE PRAGMA-DIALECTICAL ARGUMENT SCHEME RULE

Argument schemes are principles or rules underlying arguments that legitimate the inferential step from a premise to a standpoint. According to van Eemeren and Grootendorst (1992, p. 96) they characterize the way in which the acceptability of the premise that is explicit in the argumentation is transferred to the standpoint (Garssen, 2001, p. 81). The argument scheme that has been used by an arguer determines the specific relation that is established between the explicit premise and the standpoint that is being justified.

The pragma-dialectical typology of argument schemes is designed to enable an adequate evaluation of the argumentation. In this typology, three types of argumentation are distinguished: symptomatic or 'token' argumentation, where there is a relation of concomitance between the premise and the standpoint; comparison or 'similarity' argumentation, where the relation is one of resemblance; and causal or 'consequence' argumentation, where there is a causal relation between the premise and the conclusion. In symptomatic argumentation, the argument is 'presented as if it is an expression, a phenomenon, a sign or some other kind of symptom of what is stated in the standpoint' (van Eemeren and Grootendorst, 1992, p. 97). In comparison argumentation, the argument is 'presented as if there were a resemblance, an agreement, a likeness, a parallel, a correspondence or some other kind of similarity between that what is stated in the argument and what is stated in the standpoint' (van Eemeren and Grootendorst, 1992, p. 97). In causal argumentation 'the argumentation is presented as if what I stated in the argumentation is a means to, a way to, an instrument for or some other kind of causative factor for the standpoint' (van Eemeren and Grootendorst, 1992, p. 97).

These three argumentation types are categorized according to the way in which the argument scheme that is used is to be evaluated. For each type of argumentation there are corresponding assessment criteria pertaining to the relation between the premise and the standpoint. The argument schemes differ from each other because each scheme comes with its own unique set of critical questions.

For an adequate defense of a standpoint the (explicit) statements making up the argumentation will have to be accepted by both parties. But even if that is the case, the defense cannot be considered successful if these statements do not adequately support the standpoint. Only if the protagonist uses an appropriate argument scheme for his defense and applies that scheme correctly the defense can be judged correctly. That is why the argument scheme rule is stated as follows: 'standpoints may not be regarded as conclusively defended by argumentation that is not presented as based on formally conclusive reasoning if the defense does not take place by manes

of appropriate argument schemes that are applied correctly' (van Eemeren and Grootendorst, 2004, p. 194).

   The argument scheme rule can be violated in two ways. First, the argument scheme that is used in the argumentation can be inappropriate. This means that the protagonist and the antagonist cannot agree on the conditions for its use. If in such a case the protagonist persists in using this argument scheme, it is chosen incorrectly. In the end this is a matter of intersubjective agreement. In principle, every type of argument scheme can be disapproved of by one of the parties in the discussion. However, there are some argument schemes that are inappropriate per se. This goes for instance for argumentation by means of which the standpoint that something is the case is defended by pointing to desirable or undesirable consequences. According to the pragma-dialectical approach this is a fallacy because it is not permissible to test an assertion (descriptive proposition) by pointing out the undesirable effects of the assertion (evaluative proposition), then facts and values are confused (van Eemeren and Grootendorst, 1992, p. 162). In other words, the value that one attaches to the consequences of a state of affairs has no bearing on the question whether that state of affairs exists or not. This kind of fallacious argumentation is traditionally known as the *argumentum ad consequentiam.* Another example of an argument scheme that is inappropriate per se is the *argumentum ad populum* in which the sheer number of people is an indication of the acceptability of the standpoint: because everybody thinks it is good, it must be good.

   A second way to violate the argument scheme rule is to use an appropriate argument scheme in an incorrect way. An argument scheme has been used correctly if the appropriate correctness conditions have been fulfilled. These conditions correspond to the critical questions that are associated with the argument scheme concerned (van Eemeren and Grootendorst, 1992, p. 162). For arguments from analogy, one of the critical questions is whether the comparison is justified or whether there are crucial differences between the things that are compared. If an arguer cannot answer any of the critical reactions in a satisfactory way, he uses the argument scheme in an incorrect way and violates the argument scheme rule.

   One of the critical questions pertaining to arguments from consequence is whether what is presented as a consequence will actually occur. If a course of action is rejected on the grounds of the extremely negative result that it would have and it is highly unlikely that this result would occur at all, the scheme is used incorrectly. A common abuse of this argument scheme, in which the speculation on unsubstantiated negative consequences is carried to an extreme, is known as *slippery slope.*

   The fallacies we just mentioned may seem very different from each other. But they have one thing in common: they are all should violations of the rule that regulates the use of argument schemes in the stage of a critical discussion in which the parties put forward arguments and criticism in order to critically test the acceptability of a standpoint. The question is: what do ordinary language users think of these kinds of violations?

   Because of practical limitations it was not possible to include all violations in this study. We wanted to include instantiations of all three types of argument schemes. Furthermore, we wanted to include instantiations of inappropriate argument schemes as well as instantiations of incorrect uses of argument schemes. Therefore we chose the *argumentum ad consequentiam* (causal; inappropriate choice), the *argumentum ad populum* (symptomatic; inappropriate choice), the slippery slope (causal; incorrect use) and the false analogy (comparison; incorrect use).

3. TEST CONSTRUCTION AND RESULTS

For each of the four fallacies under investigation we constructed a pencil and paper test consisting of a series of short dialogues. Each fragment contained an imaginary dialogue between two interlocutors in which one of them systematically violates the argument scheme rule and commits an argument scheme fallacy. The presentation was in all cases as clear as possible. Since we were not interested in testing the respondents skills in identifying fallacies but in their opinions about the different rule violations, we tried to keep the variables that have to do with clarity under control.

The dialogues were constructed in accordance with a fixed pattern. All experimental dialogues consisted of three turns. In the first turn, the first speaker (the protagonist of the standpoint) presents his standpoint, in the second turn the antagonist expresses doubt about the acceptability of the standpoint and in the third turn the first speaker tries to cope with that doubt by putting forward argumentation.

In each test the fallacious dialogues were contrasted with reasonable counterparts. The reasonable dialogues were constructed in a very similar way as the fallacious ones. In addition to the experimental dialogues, we included some fillers: dialogues containing *tu quoque* fallacies, direct personal attacks or the fallacy of shifting the burden of proof and dialogues that contained no fallacious discussion moves. The filler fragments in which no violation of the argument scheme rule takes place were constructed in accordance with the same fixed pattern that was used for the construction of the fallacious examples. Including fillers dialogues will prevent the respondents from finding out the actual goal of the research. It also made it possible to achieve a better judgment the stability of test. In previous studies, we found repeatedly that respondents considered the direct personal attack and shifting the burden of proof equally unreasonable, while tu quoque was always considered much more reasonable (Van Eemeren and Meuffels, 2002, pp. 58-59). If these absolute and ordinal proportions are replicated, then our confidence in the validity of the data increases.

Each respondent in the experiments we carried out was exposed to between 36 and 48 constructed discussion fragments. The respondents were asked to judge the reasonableness of the final turn in the dialogue. They could indicate their judgment on a 7-point scale (varying from 1=very unreasonable to 7=very reasonable). The written instruction given to the respondents stated that people can have different opinions on the question of what is allowed or reasonable in a discussion. The notion of reasonableness was not specified any further. The respondents were Dutch pupils with 4 or 5 years of secondary, i.e. high school or pre-university education.

The ad consequentiam test

In *ad consequentiam* argumentation the transference of acceptability from the premise to the standpoint is not possible because the acceptability of a descriptive standpoint is independent of the values that are attached to the consequences or effects of the state of affairs that is described in the standpoint. The *ad consequentiam* moves in our study always consisted of a descriptive standpoint while the argumentation pointed to the positive or negative consequences of the state of affairs mentioned in the standpoint. The following is example of an *ad consequentiam* dialogue:

A: It seems very unlikely to me that the sun will ever burn up.

B: How come?
A: Well, life on earth would then be impossible wouldn't it?

These fallacious discussion moves were contrasted with non-fallacious pragmatic argumentation. In pragmatic argumentation the standpoint is concerned with a plan or policy and the argumentation mentions positive or negative consequences of this plan or policy. These dialogues were formulated in such a way that they are not problematic.

A: We shouldn't ever completely computerize our education.
B: Why not?
A: Well, it is necessary for our students to develop social contacts and that will not happen if all the work is done on a computer.

The results in Table 1 indicate that the respondents found the *ad consequentiam* fallacies highly unreasonable (2.64). The non-fallacious pragmatic argumentations in this test were considered reasonable by the respondents (5.03).

Table 1: Means of reasonableness scores for the ad consequentiam study (between brackets: standard deviation; k = number of representations)

	Mean	sd	k
Argumentum ad consequentiam	2.64	(.82)	12
Pragmatic argumentation (reasonable)	5.03	(.57)	12
Fillers			
Non-pragmatic argumentation (reasonable)	5.27	(.60)	12
Tu quoque	3.83	(.86)	4
Direct personal attack	2.76	(.93)	4
Shifting the burden of proof	2.47	(.94)	4
(1=very unreasonable, 7=very reasonable)			

While the respondents made a sharp distinction between reasonable argumentation and *ad consequentiam* argumentation[1], a significant difference between the reasonable pragmatic argumentation (5.03) and the non-pragmatic reasonable argumentation (5.27) could not be found. The other filler dialogues behaved as was expected. The direct personal attack and the fallacy of shifting the burden of proof were both seen as highly unreasonable while the *tu quoque* fallacy was considered more reasonable but not reasonable in an absolute sense (5 or higher).

The ad populum test

The ad populum dialogues in the second test were constructed in the form of the same three-turn dialogues. In the first turn the protagonist puts forward a descriptive standpoint and in the third turn he defends this standpoint by means of an appeal to the mass of the people, as in the following example:

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[1] $F(2,58)=47.28$; $p<.001$; $pv=.45$

A: Amsterdam is the most criminal city in the Netherlands.
B: How come?
A: Well, everybody says so.

These fallacious *ad populum* dialogues were contrasted with non-fallacious dialogues in which the protagonist defends his (descriptive) standpoint by referring to the results of inquiries, surveys or polls. The following dialogue contains an example of such a non-fallacious discussion move:

A: For the Dutch, France is a very popular holiday destination.
B: How do you know?
A: The results of a poll show that most Dutch go to France for their holidays.

As Table 2 shows, there is a very noticeable difference between the judgments about the *ad populum* moves (2.77) and the (reasonable) arguments based on quantitative data (5.02). This difference proved to be statistically significant. Overall there is a sharp difference betwee*n the ad populum* and two types of reasonable argumentation.[2]

Table 2: Means of reasonableness scores for the ad populum study (between brackets: standard deviation; k = number of representations)

	Mean	**sd**	**k**
Argumentum ad populum	2.77	(.80)	6
Argumentation based on quantitative data	5.02	(.78)	6
Fillers			
Reasonable argumentation	5.88	(.73)	6
Tu quoque	4.05	(.72)	6
Direct personal attack	2.82	(.72)	6
Shifting the burden of proof	2.84	(.83)	6
(1=very unreasonable, 7=very reasonable)			

A significant difference between the reactions to argumentation based on quantitative data (5.02) and other reasonable argumentation (5.88) could not be found. As in the ad consequentiam test, the reactions to the fillers were as expected and in line with our previous studies.

The slippery slope test

The slippery slope fallacy entails erroneously suggesting that by taking the proposed course of action one's situation will go from bad to worse. The slippery slope is an incorrect use of the scheme of pragmatic argumentation. In the test dialogues, the third turn consisted of warnings against the consequences of the condemned course of action.
        In the construction of the dialogues for this test, we had to make sure that the argumentation really amounted to an exaggeration of the consequences but at the other hand the dialogues

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[2] $F(2,20)=19.92$; $p<.001$; pv=.40

should remain natural because otherwise they stand out too much. The following is an example of a slippery slope test dialogue:

A: I don't think that you should throw your chewing gum on the street.
B: Why not?
A: Before you know it everybody does it and as a result of that it will not take long before people will start to drop their empty cans all around and in no-time everybody will just dump their garbage bags in the streets. Eventually the street will become so polluted that it actually is unsafe to walk there.

These fallacious uses of the causal relation were contrasted with non-fallacious pragmatic argumentation. We tried to formulate the argumentation in a similar way. That meant that more than one consequence of the course of action that was disapproved of were mentioned but these were not represented as a causal chain (going from bad to worse):

A: I don't want you to put a tattoo on your arm.
B: Why can't I?
A: Before you know it, you want the tattoo removed and if you have it removed the skin will never be as smooth as it was before. There are a people who really feel sorry about their wrinkled skin and they all wish they had never had a tattoo.

The results presented in table 3 suggest that the respondents considered the slippery slope arguments as unreasonable (3.31).

Table 3: Means of reasonableness scores for the slippery slope study (between brackets: standard deviation; k = number of representations)

	Mean	**sd**	**k**
Slippery slope	3.31	(.78)	6
Pragmatic argumentation	4.97	(.64)	6
Fillers			
Non-pragmatic argumentation	5.31	(.66)	6
Tu quoque	3.55	(.71)	7
Direct personal attack	2.62	(.71)	6
Shifting the burden of proof	2.09	(.79)	6
(1=very unreasonable, 7=very reasonable)			

We found a significant difference between the slippery slope arguments and the reasonable pragmatic and non-pragmatic argumentation.[3] There is no significant difference to be found between reasonable pragmatic argumentation (4.97) and reasonable non-pragmatic argumentation (5.31). The reactions to the filler dialogues were as expected, which is again an indication that these data are valid.

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[3] $F_{(2,18)}=9.62$; $p<.01$; pv=.25

The false analogy test

If the argumentation is based on a comparison relation, the analogy must be a sound one. The two things compared must really be comparable and there may not be any special circumstances that invalidate the comparison. If these requirements are not met, then we have the *fallacy of false analogy.* As there are no formal criteria for judging whether a comparison argumentation is sound, this led again to a serious problem. The fallacious discussion moves should clearly contain a false analogy but on the other hand we did not want to run the risk of endangering the internal validity of the test by including unnatural dialogues. That meant that we had to construct comparison argumentations in which the things compared differed clearly on essential points. These experimental dialogues were tested in an independent evaluation by three argumentation scholars. They all agreed on the fallacious character of the discussion moves. An example of a dialogue containing a false analogy is the following:

A: The rules for soccer should be changed in order to make the game more attractive to the spectators.
B: How come?
A: Commercial companies also change their products to make them more attractive for the consumers.

We contrasted the fallacious discussion moves with reasonable comparison argumentation. The following is an example of a dialogue containing a non-fallacious comparison argumentation:

A: I think I should get an allowance of three Euros per week.
B: Why?
A: When my sister was my age, she received three Euros as well.

Table 4 gives the results of the analogy test. As in all the other tests in this study, the fallacy under investigation was considered unreasonable (3.41).

Table 4: Means of reasonableness scores for the false analogy study (between brackets: standard deviation; k = number of representations)

	Mean	**sd**	**k**
False analogy	3.41	(.70)	13
Reasonable comparison	5.02	(.67)	5
Non-comparison (reasonable)	4.74	(.83)	6
Fillers			
Tu quoque	3.83	(.74)	6
Direct personal attack	2.23	(.65)	6
Shifting the burden of proof	2.62	(.98)	6
(1=very unreasonable, 7=very reasonable)			

The fallacy of false analogy was considered substantially less reasonable than the non-fallacious moves.[4] The difference between the fallacious (3.41) and the non-fallacious comparison arguments (5.02) proved to be significant. There was no difference between reasonable comparison argumentation (4.74) and other reasonable argumentation (5.02). The reactions to the fillers were all in line with our previous findings. Notice how even in an absolute sense in these four studies the fillers behave in a similar way.

4. CONCLUSION

The results of these four investigations on violations of the pragma-dialectical argument scheme rule are homogenous and consistent. Discussion moves that are not violations of discussion rules were consistently regarded as reasonable. Fallacious discussion moves were consistently regarded as unreasonable. An exception to this general finding was to some extent the *tu quoque* fallacy. In some cases the respondents considered this fallacy as almost reasonable. Whether it concerned the freedom rule, the burden of proof rule or the argumentation stage rule, in all cases the respondents drew a clear line between fallacious and non-fallacious discussion moves.

Taking into account the restrictions of the experimental set up, our findings confirm our general expectation that the pragma-dialectical rule for the argument stage is largely in agreement with the norms ordinary arguers claim to apply when judging the reasonableness of discussion moves. This finding provides positive evidence for the conventional validity of the pragma-dialectical argument scheme rule. Of course, the present research cannot answer the question to what extent the current results may be generalized to extra-experimental, real-life situations in which people are discussing the acceptability of standpoints, but it certainly shows that the pragma-dialectical argument scheme rule is in accord with the norms ordinary arguers apply when judging the argumentative quality of reasonable and unreasonable discussion moves.

REFERENCES

Eemeren, F.H. van and R. Grootendorst: 1992, *Argumentation, Communication and Fallacies,* Lawrence Erlbaum, Hillsdale, VA.
Eemeren, F.H. van and R. Grootendorst: 2004, *A Systematic Theory of Argumentation: The Pragma-Dialectical Approach*, Cambridge University Press, Cambridge.
Eemeren, F.H. van and B. Meuffels: 2002, 'Ordinary arguers' judgments on ad hominem fallacies', in F.H. van Eemeren (ed.) *Advances of Pragma-Dialectics*, Sic Sat / Vale Press, Amsterdam / Newport News, Virgina, 45-64.
Garssen, B.: 2001, Argument schemes, in F.H. van Eemeren (ed.) *Crucial Concepts in Argumentation Theory*, Amsterdam University Press, Amsterdam, 81-99.

[4] $F(1,24)=23.49$; $p<.001$; pv=.29