1. Introduction

It is as yet unknown what ordinary language users think of discussion moves that are considered fallacious in argumentation theory. Little research has been carried out regarding the standards for reasonableness ordinary arguers apply when evaluating argumentative discourse. Because knowledge of the standards is of both practical and theoretical importance, some years ago we started a comprehensive research project aiming at mapping these standards in a systematic way. The study presented here gives an overview of the results of previous empirical investigations done on the ad hominem fallacy, the ad baculum fallacy, the ad misericordiam fallacy and the fallacy of declaring a standpoint taboo. Although at first sight these fallacious moves may look very different, they nevertheless have one theoretical feature in common: they all involve a violation of the first pragma-dialectical rule, i.e. the freedom rule according to which the parties should not prevent the other party from expressing standpoints or casting doubts. In a critical discussion, all parties have a fundamental and inalienable right to express any standpoint or any doubt they wish to express.

The central question in the empirical studies of which the main trends and results are reported here, was: to what extent do ordinary arguers regard these types of fallacies as reasonable or unreasonable?

2. Conventional validity and violations of the freedom rule.

In the pragma-dialectical argumentation theory, argumentation is seen as a part of a procedure aimed at resolving a difference of opinion concerning the acceptability of a view or a 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 has to 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 or ‘conventionally valid’. This criterion is central to the empirical studies done on the (un)reasonableness of the different types of fallacies covered by the pragma-dialectical freedom rule.

According to the rule for the confrontation stage (i.e. the freedom rule) the parties are not allowed to prevent each other from advancing standpoints or casting doubt on standpoints. Attacking the opponent personally by means of an ad hominem fallacy is one way to eliminate him as a serious discussion partner. Traditionally, three variants of the argumentum ad hominem are distinguished, and all these variants were investigated in our first study (Van Eemeren, Grootendorst, Meuffels & Verburg 1997; Van Eemeren, Meuffels & Verburg 2000): (a) an abusive variant, (b) a circumstantial variant, and (c) a you too (tu quoque) variant. In the abusive variant, a head-on personal attack, one party denigrates the other party’s honesty, expertise, intelligence, or good faith, so that the other party loses its credibility. Here is an example taken from the material in our first study (henceforth: ‘ad hominem-study’):

(abusive variant; direct attack)
A: I think a Ford simply drives better; it shoots across the road.
B: How would you know? You don’t know the first thing about cars.

In the circumstantial variant, an attempt is made to undermine the opponent’s credibility by pointing out special circumstances pertaining to the opponent or suggesting self-interest on the part of the opponent that make the opponent’s arguments mere rationalizations. Here is an example, again taken from the material in the ad hominem-study:
A: In my view, the best company for improving the dikes is Stelcom Ltd; They are the only contractor in the Netherlands that can handle such an enormous job.
B: Do you really think that we shall believe you? Surely, it is no coincidence that you recommend this company: It is owned by your father-in-law.

The *tu quoque argumentum ad hominem* is directed at revealing an inconsistency in the positions that the opponent has adopted on various occasions. This may point to an inconsistency between the standpoint the opponent attacked or defended in the past, or a discrepancy between a standpoint verbally expressed by the opponent and other behavior on his part that is not in accordance with this standpoint. An example from our ad hominem-study:

A: I believe the way in which you processed your data statistically is not entirely correct; you should have expressed the figures in percentages.
B: You’re not being serious! Your own statistics are not up to the mark either.

In our second and third study (the so-called ‘ad baculum-phs study’ and the ‘ad baculum-dir study’), *the argumentum ad baculum* (i.e.‘the fallacy of the stick’) was investigated: a threat aimed at preventing the other party at freely advancing a standpoint or casting doubt. The threat can be both physical and non-physical. The most extreme way of preventing the opponent from advancing a standpoint or putting forward doubt on a standpoint is to make it literally impossible for him to speak by means of brutal force. Here are two examples from the material participants were exposed to in our ad baculum-phs study (Van Eemeren, Grootendorst & Meuffels 1999; Van Eemeren, Garssen & Meuffels 2001). In this study the physical variants of the argumentum ad baculum (first example) were compared to and contrasted with non-physical variants (second example), i.e. variants in which the other party is ‘only’ threatened by depicting some non-physical, undesirable consequences:

A: I think that the location in Amsterdam South is the best spot for the distribution of methadone; it is a quiet neighborhood with relatively few problems.
B: If you try to get that repulsive proposition passed, chances are you will have...
false teeth in the near future, let that be clear!

(non-physical variant of the ad baculum)
A: I think it is better not to have joint property when we get married; if the company goes bankrupt, at least they can’t take possession of everything we own.
B: If you don’t want to have joint property, that’s fine with me, but as far as I am concerned we don’t have to share our bedroom either.

In practice, ordinary arguers will presumably tend to use more subtle, indirect means for putting the other party under pressure. Indirect reference may be made to unpleasant consequences for the other party if the speaker does not get his way: “Of course you must make your own decision, but remember that we’re one of your top clients.” Or the speaker may emphatically deny any intention of putting on pressure: “I certainly wouldn’t want you to be influenced by the fact that I happen to be chair of the committee that will be evaluating your work.” This indirectness by which threats are sometimes put forward was the subject we focused on in our third empirical study on fallacies (henceforth: ‘ad baculum-dir study’). In this study (Van Eemeren, Grootendorst & Meuffels 1999) we contrasted direct variants of the argumentum ad baculum with indirect ones.

Two examples, taken from the material (the first example pertains to the direct variant, the second one to the indirect variant):
(direct variant of the ad baculum)
A: Mom, I think you should watch your calories; you are growing too fat now.
B: Watch your words! Otherwise I’ll smash you in the mouth.

(indirect variant of the ad baculum)
A: In my opinion women are bad drivers. Accident rates show this unambiguously.
B: Of course you may say this, but bear in mind your own safety! I cannot keep all those furious driving feminists under control.

Another effective way of putting pressure on the other party is to play on his emotions: “How can you have given me such a low mark for my thesis? I’ve really worked on it night and day.” Traditionally, this fallacious appeal to pity is called argumentum ad misericordiam. The (un)reasonableness of this fallacious discussion move was investigated in two independent studies (one a mere replication of the other; henceforth: ‘ad misericordiam-I study’ and ‘ad misericordiam-II’). One example from these two studies (Van Eemeren, Garssen &
Meuffels 2000a): (argumentum ad misericordiam)
A: I don’t think your graduation ceremony can take place; your research isn’t any good.
B: You can’t do that to me! I have already invited my whole family and all my friends.

In addition to personal attacks, threats and emotional blackmail and other ways of restricting a party’s freedom of action, the freedom rule can also be violated by placing limits on the standpoints or doubts that may be expressed. One way of limiting expression of standpoints and doubts is to declare certain standpoints taboo: “Homosexuals in the army? I refuse to discuss such matters!” Conversely, particular standpoints can be declared sacrosanct (“I regard his authority beyond discussion.”), so that the opponent is prohibited from casting doubt on them and they are rendered immune to criticism. This particular fallacy (i.e. the fallacy of declaring a standpoint taboo) was investigated in our sixth study (Van Eemeren, Garssen & Meuffels 2000b). Here is an example, taken from our material:

(Fallacy of declaring a standpoint taboo)
A: In my opinion, our university should pay more attention to research in which the possibilities of the cloning of people are studied. If not, we will fall far behind recent scientific developments in the United States.
B: Shut up! For me, cloning of people is absolutely taboo.

It is fair to say that there is little consensus among argumentation theorists about the malicious character of the discussion moves discussed so far. Even the evidently dubious status of the ‘argument of the stick’ is disputed by some fallacy theorists. But looked at these discussion moves from a pragma-dialectical perspective, they are all without exception invalid moves because they all involve a violation of the freedom rule for critical discussion.

3. Judgments on fallacies and non-fallacies
Each respondent in the six experiments we carried out was exposed to 48 constructed discussion fragments. Each fragment consisted of an imaginary dialogue between two interlocutors (A and B), one of them (B) systematically violating the freedom rule in 36 fragments, resulting either in an argumentum ad hominem, or an argumentum ad baculum, or an argumentum ad misericordiam or a fallacy of declaring a standpoint taboo (for examples of these dialogues, see the
previous section). For base line and comparison purposes, in each of the six studies 12 discussion fragments were included in which no violation of the confrontation rule was committed. An example of a fragment of this last kind:
A: I believe my scientific integrity to be impeccable; my research has always been honest and sound.
B: Do you really want us to believe you? You have already been caught twice tampering with your research results.

Note that this last fragment (with no violation of the freedom rule) is constructed in accordance with the same fixed pattern that is used for the construction of the fallacious examples, and that B’s response (in this specific case) is also marked by an ad hominem indicator (such as “Are you out of your mind?”) to make sure that the fallacious and non-fallacious dialogues looked as much alike as possible. The respondents were asked to judge the (un)reasonableness of B’s reaction, the antagonist. 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.

<table>
<thead>
<tr>
<th>Type of study</th>
<th>n</th>
<th>violation of freedom rule</th>
<th>no violation of freedom rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>ad hominem</td>
<td>92</td>
<td>3.25 (.46)</td>
<td>5.29 (.34)</td>
</tr>
<tr>
<td>ad baculum-øs</td>
<td>35</td>
<td>3.35 (.46)</td>
<td>5.64 (.39)</td>
</tr>
<tr>
<td>ad baculum-ør</td>
<td>35</td>
<td>3.27 (.48)</td>
<td>5.41 (.62)</td>
</tr>
<tr>
<td>ad misericordiam I</td>
<td>21</td>
<td>3.86 (.53)</td>
<td>5.06 (.32)</td>
</tr>
<tr>
<td>ad misericordiam II</td>
<td>57</td>
<td>3.51 (.51)</td>
<td>5.20 (.41)</td>
</tr>
<tr>
<td>declaring taboo</td>
<td>52</td>
<td>3.33 (.45)</td>
<td>5.14 (.17)</td>
</tr>
</tbody>
</table>

The main question is whether the respondents (Dutch pupils with 4 or 5 years of secondary (i.e. high school) education or pre-university (i.e. grammar school) education, most of them 17 years old) make a distinction between discussion moves that, according to pragma-dialectical standards, involve a fallacy and those that are not fallacious. In Table 1, the mean for the 36 fallacious moves is contrasted with that of the 12 non-fallacious moves, abstracting from the specific type of fallacy in each of the six studies (see next section), and abstracting from the type of discussion (see section 5).

In each of the six studies the same pattern is found: fallacies are considered less reasonable discussion moves than non-fallacies(i).

The respondents in each study regard the discussion fragments with a violation of
the freedom rule also in an absolute sense unreasonable while the fragments with no violation were regarded as reasonable. For example, in the ad hominem-study the mean reasonableness score for the dialogues with fallacies is 3.75 (‘fairly unreasonable’), the mean for dialogues without fallacies is 5.29 (‘fairly reasonable’). Assuming for the moment that alternative explanations are ruled out, the data in table 1 provide strong support for the conventional validity of the freedom rule.

4. Judgments on different types of fallacies

Another variable of interest is the type of freedom rule violation. Do the respondents differentiate between the different kinds of freedom rule fallacies? For example, in the first study (Van Eemeren, Meuffels & Verburg, 2000) it was predicted that ordinary arguers would judge the abusive variant of the argumentum ad hominem the least reasonable, the circumstantial variant more
of freedom; ES=effect size, associated with F; 
F1=first a posteriori Helmert contrast between the first type of fallacy versus the second and third type; F2: second a posteriori Helmert contrast between the second and third type of fallacy).

reasonable and the tu quoque the most reasonable. This prediction could be confirmed (see Table 2).

For reasons of comparison and generalization the two variants with the largest contrast in our first investigation (i.e. the direct attack versus the tu quoque in the ad hominem-study) were again included in the five subsequent studies. Replicating such an effect employing different arguments on different topics is an important precondition before valid conclusions about message and argumentation effects can be drawn. Thus, in each of the six experiments three types of fallacies were investigated, each type represented by 12 discussion fragments; two of these involved always the same type of violation of the freedom rule. However, in each of the six studies the instrumental instantiations of these two types were different.

Looking at the direct attack and the tu quoque in the six studies we see that the direct attack situation is invariably considered as less reasonable than the tu quoque(ii). The consistency of this pattern provides support for the external validity of the results.

From table 2 a rank ordering can be inferred regarding the unreasonableness of different types of freedom rule violations. That ordering is, at least to a certain extent, intuitively plausible: the physical variant of the ad baculum is considered by far the most unreasonable discussion move, next the direct variant of this fallacy, then the direct attack and the fallacy of declaring a standpoint taboo, and subsequently the indirect attack, the argumentum ad misericordiam and the tu quoque. That in general the ‘you too’ fallacy is considered as a reasonable move is
conceivable, assuming that in some discussion contexts this fallacy has at least the appearance of being reasonable: Serious participants in a conversation may be expected to show a certain amount of consistency between their (past and present) words and deeds. At least that is what our respondents thought. However, from a critical discussion perspective this is still a fallacy, even in an informal setting.

From the results in table 2 it cannot be inferred, however, that the tu quoque fallacy is judged reasonable under all circumstances. We didn’t present the fallacious and non-fallacious discussion moves in isolation, but in the context of dialogues that were part of a discussion (see the next section). We presented the dialogues in three types of discussion: a scientific, a political, and a domestic discussion. In a scientific discussion, i.e. that type of discussion that exemplifies the type of exchange of ideas that, generally speaking, resembles the ideal of a critical discussion most closely, the tu quoque fallacy was invariably considered as an unreasonable discussion move (in the six studies the means for this particular fallacy were respectively 3.66 (.86), 3.78 (.97), 3.22 (.83), 3.62 (1.04), 3.71 (1.01), and 3.77 (.91)).

5. Politeness as an alternative explanation

Judgments concerning the reasonableness of discussion moves are, in the ordinary course of events, not made in abstracto. That is why we didn’t present the fallacious or non-fallacious moves in isolation but in the context of dialogues that are part of a discussion. Moreover, in doing so we hoped to disentangle the effects of rule violations and the effects of politeness. Because the fallacies covered by the freedom rule, like ad hominem attacks or ad baculum threats, are not only unreasonable in an argumentative sense but are also very impolite there is always a chance that the respondents base their judgments on the politeness value of the fallacious discussion moves. The data in table 1 and 2 are in perfect agreement with this counterhypothesis: for example, the respondents judged the abusive ad hominem attack (which is the most impolite variant of the three ad hominem attacks) as the least unreasonable move, whereas they invariably judged the least impolite attack (tu quoque) as the most reasonable.

Nonetheless, two objections can be made against this criticism. First, the non-fallacious arguments were also quite impolite. Remember that not only fallacious but also sound arguments were accompanied by (for example) ad hominem indicators such as “Are you out of your mind”. These indicators are normally
taken to be very impolite forms of expression, which often create a sphere of hostility between the interlocutors. Second, in order to get a grip on this alternative explanation, we represented three types of discussion in each of the six studies: a scientific, a political, and a domestic discussion. In the instruction to the respondents, it was made clear that these three discussion types differ in two important ways:

a. the extent to which they approach the ideal of a critical discussion and
b. the extent to which they reflect a formal situation. A scientific discussion exemplifies the type of exchange of ideas that, generally speaking, resembles the ideal of a critical discussion (De Groot 1984).

<table>
<thead>
<tr>
<th>Table 3: Means of reasonableness scores for fallacious discussion moves in the three types of discussion domains (D=domestic domain; P=political domain; S=scientific domain), per study (F1=first a priori Helmert contrast between D and P; F2=second a priori Helmert contrast between S versus D and P)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of study</td>
<td>D</td>
<td>P</td>
<td>S</td>
<td>F1</td>
<td>F2</td>
</tr>
<tr>
<td>adhoremen</td>
<td>4.09</td>
<td>3.94</td>
<td>3.22</td>
<td>3.42</td>
<td>&lt;.05</td>
</tr>
<tr>
<td></td>
<td>(82)</td>
<td>(68)</td>
<td>(51)</td>
<td>(122)</td>
<td>(122)</td>
</tr>
<tr>
<td>adhouscumby</td>
<td>3.55</td>
<td>3.62</td>
<td>3.38</td>
<td>0.09</td>
<td>0.69</td>
</tr>
<tr>
<td></td>
<td>(68)</td>
<td>(79)</td>
<td>(70)</td>
<td>(122)</td>
<td>(122)</td>
</tr>
<tr>
<td>adhouscumdir</td>
<td>3.55</td>
<td>3.64</td>
<td>3.42</td>
<td>0.08</td>
<td>&lt;.05</td>
</tr>
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<td></td>
<td>(68)</td>
<td>(70)</td>
<td>(70)</td>
<td>(122)</td>
<td>(122)</td>
</tr>
<tr>
<td>admisseredomi</td>
<td>4.01</td>
<td>4.09</td>
<td>3.40</td>
<td>0.07</td>
<td>0.62</td>
</tr>
<tr>
<td></td>
<td>(62)</td>
<td>(60)</td>
<td>(70)</td>
<td>(122)</td>
<td>(122)</td>
</tr>
<tr>
<td>admisseredomii</td>
<td>3.88</td>
<td>3.12</td>
<td>3.08</td>
<td>0.56</td>
<td>1.42</td>
</tr>
<tr>
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<td>(68)</td>
<td>(71)</td>
<td>(71)</td>
<td>(122)</td>
<td>(122)</td>
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<tr>
<td>delatingtable</td>
<td>3.45</td>
<td>3.33</td>
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<tr>
<td></td>
<td>(53)</td>
<td>(75)</td>
<td>(75)</td>
<td>(122)</td>
<td>(122)</td>
</tr>
</tbody>
</table>

*a=not significant; 2p<.01; 3p<.05; 4p<.10; 5p<.21
The other two discussion types are taken to be specimens of exchanges that in practice are further removed from the ideal of a critical discussion. Furthermore, the scientific and political types are formal; whereas the domestic type is informal (the example of a direct attack (see section 2) is an example of a discussion fragment in the domestic domain, the example of the indirect attack pertains to the political domain, and the example of the tu quoque to the scientific domain). If the respondents would react primarily to the politeness value of the items there would be no difference between the reasonableness scores pertaining to the political and the scientific domain. However, assuming that the respondents react primarily to the argumentational (in)adequacy (and not the impoliteness of the discussion moves), one can predict that the respondents will regard fallacies in a scientific discussion less reasonable than in the other two, less-critical discussion contexts. The results in table 3, indicating that the respondents are discriminating between the reasonableness of arguments in the scientific domain and the other two settings (between which no differences are found), are clearly favoring the second prediction. The results seem to indicate that the respondents are predominantly sensitive to and reacting to the quality (or lack thereof) of the argumentation.

To substantiate this last idea, an altered replication of the ad hominem study was carried out in which 24 respondents of the same age and educational background as those in the original research not only had to judge and rate the (un)reasonableness of the discussion moves but also had to justify their answers in some cases. Because of the more limited testing time, only half of the items of the original test (24) were presented (each of the nine combinations was represented by two, instead of four, items for each discussion type, plus two fragments in which no rule violation occurred). With regard to 12 of these 24 items the respondents had to explain in writing why they judged the reaction of the antagonist B as reasonable or unreasonable. The quantitative results were strikingly similar as our earlier results, even with this considerably smaller sample and fewer items.

The 288 answers of the respondents were coded in 7 categories (this coding system was developed on the basis of the answers of 10 other respondents in oral interviews). Of these 288 answers, only 170 could be interpreted: In 16 cases no answer was given at all; in 102 cases, the answer could not be classified in one of the five content-oriented categories. This was, for example, the case with answers
such as “I have the strong feeling something is wrong but just can’t say why.” 66 answers could be classified as “rule violations” (“B’s reaction is unreasonable because he is not reacting to A’s standpoint at all; he is only pointing at personal interests of A”), 64 answers belonged to the category “lack of relevance” (“B’s reaction is unreasonable because it is not relevant”), 19 to the category “politeness” (“B’s reaction is unreasonable because he could have said it in a more polite way”), 17 to the category “bad argument” (“It’s unreasonable because B’s reaction is a bad argument”), and the remaining 4 answers could be classified in more than one category.

Clearly, the majority (86%) of the responses that could be interpreted could be linked to the quality of the argumentation. Only a small part (11%) could be attributed to the lack of politeness of a discussion move. These results suggest that, at least in the ad hominem study, the respondents reacted primarily to the argumentative value of the arguments, not so much to their politeness value.

6. The type of proposition expressed in the standpoint as an alternative explanation

The differences in reasonableness between the three discussion types in Table 3 can be attributed to differences in the type of proposition expressed in the standpoints in each of the three discussion domains. Three main types of proposition can be distinguished: descriptive, evaluative, and inciting propositions. Descriptive propositions describe facts or events (“The euro rate is still falling”), evaluative propositions express an assessment of facts or events (“The formerly President Clinton is an underestimated statesman”), and inciting propositions call on to prevent a particular event or course of action (“The policy of apartheid must be combated with all possible means”).

Table 4: Distribution of the number of discussion fragments according to the type of proposition expressed in the standpoint, in each discussion domain.

<table>
<thead>
<tr>
<th>Type of proposition</th>
<th>Domestic</th>
<th>Political</th>
<th>Scientific</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inciting</td>
<td>11</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Evaluative</td>
<td>3</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Descriptive</td>
<td>2</td>
<td>2</td>
<td>12</td>
</tr>
</tbody>
</table>

Table 4: Distribution of the number of discussion fragments according to the type of proposition expressed in the standpoint, in each discussion domain.
It is conceivable that ordinary arguers consider fallacious moves implying an attack on descriptive propositions as less reasonable than attacks on evaluative or inciting propositions: after all, facts are facts. On the basis of a post hoc analysis of the dialogues in the original ad hominem study it became clear that this variable, i.e. the type of proposition expressed in the standpoint, unwittingly co-varies with the type of discussion (see Table 4).

A new study with 72 discussion fragments was designed to rule out this alternative explanation. Each of the three types of ad hominem attacks was represented by 6 dialogues in each of the three discussion domains: in two of them the protagonist advanced a standpoint with a descriptive proposition, in two of them a standpoint with an evaluative proposition, and in two of them a standpoint with an inciting proposition. The effect of this crossing is independence of these two types of variables.

A group of 75 respondents was randomly split in two. Half of them (group I: n=38) had to rate the dialogues in the domestic and political domain, the other half (group II: n=37) had to judge the dialogues in the scientific domain and in the political domain. Both groups were exposed to the same dialogues in the political domain. No differences were found between these two groups in their judgment of the reasonableness of the dialogues in the political domain (group I: 3.91 (.55); group II 3.95 (.57). Further, the results were in agreement with those found in the original ad hominem study. In both groups the fallacies were again judged as less reasonable than the non-fallacies (group I: fallacies 3.95(.50), non-fallacies 4.73 (.49); group II: fallacies: 3.63 (.62), non-fallacies 4.76 (.68)). In both groups the direct attack was again judged as the least reasonable move, then the indirect attack, and subsequent the tu quoque (group I: dir 3.11 (.75), ind 3.92 (.67), tu quoque 4.85 (.63); group II: dir 2.88 (.73), ind 3.76 (.77), tu quoque 4.26 (.69). Moreover, the fact that group II judged the ad hominem fallacies as less reasonable compared with group I, is in accordance with the data in Table 3: group II had to rate the dialogues in a scientific (and political) domain while group I had to rate them in a domestic (and political) domain. Most important, the variable ‘type of proposition expressed in the standpoint’ had no statistically significant influence on the reasonableness scores, neither in isolation, nor in interaction with one of the other variables.
Table 5: means of reasonableness scores for ad hominem fallacies, according to the type of proposition expressed in the standpoint (DES=descriptive; EVA=evaluative; INC=inciting) and the type of discussion domain (D=domestic domain; P=political domain; S=scientific domain).

<table>
<thead>
<tr>
<th></th>
<th>DES</th>
<th>EVA</th>
<th>INC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>4.00</td>
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<tr>
<td></td>
<td>(.72)</td>
<td>(.77)</td>
<td>(.85)</td>
</tr>
<tr>
<td>P</td>
<td>4.38</td>
<td>3.79</td>
<td>3.77</td>
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<td>(.76)</td>
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<td>D</td>
<td>3.85</td>
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<td>(.41)</td>
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<tr>
<td></td>
<td>(.70)</td>
<td>(.65)</td>
<td>(.56)</td>
</tr>
</tbody>
</table>

Clearly, the results of this study run counter to the offered alternative explanation.

7. The freedom rule and the ‘polder’ debate

All the empirical investigations discussed so far are conducted in Holland. The participants in our experiments are accustomed to the typical characteristics of the Dutch debate-culture: a strong emphasis on rational deliberation, an emphatic disapproval of verbal and non-verbal violence, and, most important, the pursuit of reaching consensus when conflicts and differences of opinion arise. This ideal can be coined as the Dutch ‘polder’ debate. All activities that threaten this dominant ideal of reasonability and frustrate the resolution of a difference of opinion, are rejected – consequently fallacies that hinder a rational resolution of a difference of opinion. It is possible that in other cultures, with different debate traditions, other empirical results would be obtained.

To check this supposition, the ad hominem study was replicated twice in Spain. All the 48 discussion fragments of the original ad hominem study were translated and, if necessary, adopted to the Spanish culture. For example, a typical Dutch discussion fragment about a minced-meat ball (‘I think you should add an egg to the minced meat; it tastes much better’) was replaced by ‘creo que deberias poner mas chorizo en las lentejas; estan mucho mas buenas’, a fragment that is
more suitable in the Spanish culture (Piñol 1999). In the first replication the participants (n=47) only had to rate the reasonableness of the discussion fragments, in the second study (n=29) the participants also had to justify some of their judgments. In both replications the main results were the same as those reported in Table 1 and 2: fallacies (mean: 3.54 (.64)) were judged less reasonable than the non-fallacies (mean: 4.97 (.86)); the indirect attack was again judged as the least reasonable discussion move (mean: 3.01 (1.12)), then the indirect attack (3.61(.75)), and subsequently the tu quoque-variant (3.99 (.78)).

There was one notable deviation in both replications: unlike the Dutch participants the Spanish subjects didn’t discriminate between fallacies committed in a domestic (3.27(.90)) and a scientific situation (3.07 (1.01)), and they considered the fallacious fragments in a political domain (4.27 (.63)) less unreasonable compared to the two other domains. Probably politeness is playing a somewhat different role in the two cultures, especially in the communication between intimae, relatives and friends. For example, in Spain it is absolutely not done in ordinary conversations with friends to perform a ‘face threatening’ act like rejecting a proposal – let alone performing a face threatening act like an abusive attack. In a pilot study we asked 20 Dutchmen and 20 Spaniards (1) what they would do and (2) what they thought their countrymen would typically do in (seven) situations like the following:

You have invited a friend for a dinner. After the dinner you feel very tired. Besides that, it is pretty late and next morning you have to wake up early. What would you do?

a. You tell her friendly that it is late, that you are really tired, that you have to wake up early next morning; subsequently you request her to leave.

b. You give hints and signals that it is time to leave (for example by looking on your watch or by yawning)

c. She is your guest and you’ll just have to wait until she wants to leave.

| Table 6: Frequencies of chosen answer by Dutchmen (n=20) and Spaniards (n=20) on the question: 'What would you do?' and 'What would be the typical reaction in Holland/Spain?' (Typical reaction), for 7 potentially face-threatening situations. |
|-----------------|-----------------|-----------------|-----------------|
| Holland         | Self            | Holland         | Typical reaction |
|                 | Spain           |                 | Holland         | Spain           |
| a. perform 'on way out' | 100            | 84              | 84              | 4               |
| b. perform 'off-record'    | 26             | 22              | 48              | 41              |
| c. not performs         | 14             | 34              | 8               | 55              |
answer by Dutchmen (n=20) and Spaniards (n=20) on the question: ‘What would you do?’ (Self) and ‘What would be the typical reaction in Holland/Spain ’ (Typical reaction), for 7 potentially face threatening situations.

The differences between the Dutch and the Spaniards are quite pronounced (see table 6).

The different role of politeness in the two cultures can also be inferred from the justifications the Spanish respondents (n=29) had to give for their judgments of 12 ad hominem-fallacies. A substantial part (41%) of the total amount of 348 justifications could not be interpreted, i.e. could not be linked to the five content-oriented categories (see section 5). The majority of the remaining answers could be classified in one of the categories that were associated with the quality of the argumentation (67 %), the remainder (33%) could be attributed to politeness. It is striking – and in accordance with the results in table 6 – that in the domestic domain the number of justifications that could be linked to the category ‘quality of argumentation’, was approximately the same as the number of ‘politeness’ justifications (28 vs. 29). Notice that in Spain the influence of politeness is somewhat stronger than in Holland (33% in Spain versus 11% in Holland). Nevertheless, the main results concerning the difference in reasonableness of fallacies and non-fallacies and the difference in reasonableness of the three types of ad hominem fallacies are in perfect agreement with those found in Holland.

9. Conclusions

Taking into account the restrictions of the experimental set up we specified earlier, our findings confirm our general expectation that the pragma-dialectical rule for the confrontation stage is largely in agreement with the norms ordinary arguers claim to apply when judging the reasonableness of discussion moves(iv). This finding provides positive evidence for the conventional validity of the first pragma-dialectical discussion 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.
NOTES

[i] In the statistical tests of the differences in reasonableness between fallacious and non-fallacious moves we contrasted each of the three types of fallacy (represented by 12 dialogues within each study (see table 2, next section)) with the 12 non-fallacious moves (abstracting from the type of discussion domain, see section 5). Assuming a repeated measurement design in which the random Replication factor is nested within the fixed factor Violation/No Violation and is crossed with the random Respondent factor, quasi F ratios had to be computed (as proposed by, for example, Clark (1973)). All F ratios reported in this article are of this type. Degrees of freedom for such quasi tests are not exact, but must be approximated. Within each of the studies, the F’s proved to be significant (p<0.05), even after applying the Bonferonni criterium (with one notable exception: the tu quoque fallacy in the ad misericordiam-I study which is judged equally reasonable as the non-fallacious moves. This finding was one of the reasons for replicating this study). Ad hominem study: dir F(1,34)=134.38; ES=.47; ind F(1,27)=34.78; ES=.21; tu q. F(1,26)=11.78; ES=.09. Ad baculum-phys study: bac F(1,33)=92.23; ES=.57; dir F(1,40)=98.02; ES=.52; tu q. F(1,29)=13.17; ES=.14. Ad baculum-dir study: bac F(1,24)=20.20; ES=.29; dir F(1,25)=31.35; ES=.36; tu q. F(1,25)=6.06; ES=.09; Ad misericordiam-I study: dir F(1,41)=26.81; ES=.24; mis F(1,41)=9.84; ES=.13; tu q. F(1,33)<1. Ad misericordiam-II study: dir F(1,32)=80.02; ES=.41; mis. F(1,28)=32.09; ES=.29; tu q. F(1,28)=12.20; ES=.09. Declaring taboo: tab. F(1,37)=82.02; ES=.46; dir F(1,36)=121.39; ES=.49; tu q. F(1,28)=10.29; ES=.08. ES refers to the (estimated) effect size, expressed here as the proportion of within-Ss explained by a factor (after removing the between-Ss due to the ‘nuisance’ variable Respondent from the total-Ss). As can be inferred from the magnitude of the effect sizes, the participants in the six studies discriminated sharply between fallacious and non-fallacious moves. For more detailed information about the statistical procedures, see Van Eemeren & Meuffels 2002.

[ii] Although in some studies a priori contrasts between the three types of fallacy were possible (for example in the ad hominem study or in the ad baculum-phys or ad baculum-dir study), in other studies they were not (for example in the ad misericordiam studies). The reported (quasi) F in table 2 is computed on the basis of a repeated measurement design in which the random Replication factor (with four levels) is nested within the interaction of two fixed treatments, each with three levels (i.e. (1) type of fallacy, and (2) discussion type (see section 5)), and is crossed with the random Respondent factor. The data in table 2 are thus not
independently, but simultaneously analysed with those in table 3. After establishing the significance of the overall (quasi) $F$, two orthogonal a posteriori Helmert contrasts were carried out, the first contrast pertaining to the difference in reasonableness between the first fallacy (listed in table 2 within each study) and the second and third, the second Helmert contrast pertains to the difference in reasonableness between the second and third fallacy. The degrees of freedom for Helmert contrast $F$’s are, for the numerator, 1; for the denominator these are equal to the corresponding degrees of freedom for the statistical test of the main effect.

[iii] Just as in the previous research, the tu quoque variant is regarded as the most reasonable (3.82), followed by the circumstantial variant attack (3.47) and the abusive attack (2.99). Fallacious arguments are, again, most strictly judged in the scientific domain (in this domain the means for the tu quoque, circumstantial, and abusive attack are 3.25, 2.69, and 1.96 respectively). Moreover, fallacious arguments (3.43) are judged less reasonable than the non-fallacious moves (5.27).

[iv] It is, of course, an entirely different matter whether the respondents who acted as our judges actually apply their verbally expressed reasonableness standards in their own argumentative practice.

REFERENCES
Eemeren, Frans H. van, Bert Meuffels & Mariël Verburg (2000). The (un)reasonableness of ad hominem fallacies. Journal of Language and Social
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