FALLACIES AND JUDGMENTS OF REASONABLENESS

Frans van Eemeren, Bart Garssen
and Bert Meuffels

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Empirical Research Concerning the Pragma-Dialectical Discussion Rules

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Preface

Fallacies and Judgments of Reasonableness reports – as the subtitle of this volume indicates – on our empirical research concerning the pragma-dialectical discussion rules. It is, in fact, a final overview of this research and its results. We started the experiments described here almost 15 years ago as part of a comprehensive research project titled Conceptions of Reasonableness. This project was aimed at determining to what extent the norms for reasonableness incorporated in the pragma-dialectical rules for critical discussion are intersubjectively acceptable to ordinary arguers who do not have had any special training in analyzing and evaluating argumentative discourse. To the extent that they indeed prove to be in accordance with ordinary arguers' judgments of reasonableness the pragma-dialectical discussion rules may not only lay claim to "problem-validity" but also to "conventional validity."

The report given in this volume is for a large part based on papers we published earlier in academic journals and book chapters. Journal articles by the three of us we made use of here appeared in *Tijdschrift voor Taalbeheersing* (1999, pp. 29–48, with Rob Grootendorst instead of Bart Garssen; 2000, pp. 22–40; 2001, pp. 106–131; 2002, pp. 120–145; 2003, pp. 158–180; 2004, pp. 291–302; 2007, pp. 251–274) and in *Language and Social Psychology* (2000, pp. 416–435, with Mariel Verburg instead of Bart Garssen). Book chapters we made use of here we published earlier in R. Neutelings, N. Ummelen, & A. Maes (Eds.) (2000). *Over de grenzen van de taalbeheersing* (pp. 129–140, 141–156). Den Haag: SDU; G. T. Goodnight (Ed.) (2002). *Arguing communication & culture* (pp. 343–350). Washington, DC: National Communication Association; F. H. van Eemeren (Ed.) (2002). *Advances in pragma-dialectics* (pp. 45–64). Amsterdam: Sic Sat; L. van Waes, P. Cuvelier, G. Jacobs, & I. de Ridder (Eds.) (2003). *Studies in Taalbeheersing 1* (pp. 118–123; pp. 124–133). Assen: Van Gorcum; F. H. van Eemeren, J. A. Blair, C. A. Willard, & A. F. Snoeck Henkemans (Eds.) (2003). *Proceedings of the fifth conference of the international society for the study of argumentation* (pp. 281–284). Amsterdam: Sic Sat; D. Hitchcock, & D. Farr (Eds.) (2005). *The uses of argument* (pp. 66–74). Hamilton, ON: Ontario Society for the Study of Argumentation; F. H. van Eemeren, & P. Houtlosser (Eds.) (2005). *Argumentation in practice* (pp. 349–365). Amsterdam: John Benjamins; C. A. Willard (Ed.) (2005). *Critical problems in argumentation* (pp. 669–675). Washington, DC: National Communication Association Willard; P. Riley (Ed.) (2006). *Engaging argument* (pp. 445–452).

Alta, UT: National Communication Association; F. H. van Eemeren, J. A. Blair, C. A. Willard, & B. Garssen (Eds.) (2007). *Proceedings of the sixth conference of the international society for the study of argumentation* (pp. 367–373). Amsterdam: Sic Sat; F. H. van Eemeren, & B. J. Garssen (Eds.) (2008).*Controversy and confrontation* (pp. 181–195). Amsterdam: John Benjamins. We are grateful to the editors of these journals and books for giving us an opportunity to bring our empirical work to the attention of a broader readership and we thank the reviewers for their useful comments.

In preparing the manuscript for this volume we have been helped considerably by the assistance of our students Nanon Labrie and Renske Wierda. Their careful and skillful support has made it much easier for us to bring the project to completion. We thank them very much.

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Chapter 1
Theoretical Background and Organization of the Study

1.1 Introduction

Using a rather broad definition, fallacies can be characterized as wrong moves in argumentative exchanges. The concept of fallacy is at the core of every full fledged argumentation theory and the treatment of the fallacies can even be regarded the acid test of any particular approach to argumentation. If an argumentation theory can deal with fallacies in a satisfactory way, this is a positive test as to the scope and explanatory power of that theory.

Argumentation theory aims at offering norms and criteria for evaluating argumentation so that reasonable contributions to the argumentative exchange can be distinguished from contributions that are unreasonable because they contain fallacies. From antiquity fallacies have been studied systematically. In these studies the main questions have always been: What do we mean by fallacies, what makes them unreasonable, and how should they be classified? After these questions have been answered in a theoretically adequate way, the next question is to what extent real arguers agree with the theoretically motivated norms and criteria that are proposed. This last question is the question we set out to answer in this volume.

This volume focuses on the views of ordinary arguers concerning fallacious argumentative moves. What opinions do they have about argumentative moves put forward in argumentative discourse that argumentation theorists consider fallacious? Do laymen have the same view of their wrongness as the theorists? And if their judgments differ substantially, how can this be explained? We are interested in finding out to what extent practice follows theory – in determining the agreement between the views of laymen and the theoretical norms proposed in argumentation theory.

Only few empirical studies have been carried out so far regarding this important issue. It is true that in the United States Bowker and Trapp (1992) took some steps in the desired direction and that in Germany Schreier, Groeben, and Christmann (1995) carried out a series of relevant tests, but as we shall explain later both studies

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suffer from certain deficiencies, which – although seemingly different – are of the same type.[1]

This first chapter starts with an introductory overview of the study of fallacies. Next we present an outline of the pragma-dialectical argumentation theory that provides the theoretical framework for our empirical investigations. This outline will be followed by a descriptive overview of the fallacies we concentrate on in this volume. We end this introductory chapter with a description of the organization of the volume.

1.2 A Historical Overview of the Study of Fallacies

1.2.1 The Aristotelian Approach to Fallacies

The general goal of the study of fallacies is to describe and classify the forms of argumentation that should be deemed unsound or incorrect. The systematic study of fallacies began with Aristotle (384–322) whose list has since been the starting point of much of the theorizing. Over the course of time, his list of 13 different types of fallacies has been considerably extended while the original Aristotelian fallacies have been given new interpretations and characterizations. Aristotle's ideas however are still very much apparent in modern approaches to the fallacies.

Aristotle addresses fallacies in several works. He covers the subject quite thoroughly in *De Sophisticis Elenchis* and the *Topics* while *Prior Analytics* contains additional remarks, and *Rhetoric* discusses only part of the list compiled in *De Sophisticis Elenchis*. *De sophisticis elenchis* means "on refutations as used by the Sophists" (the English translation of the title is *Sophistical Refutations*). This is why fallacies are sometimes referred to as *sophisms,* a term that in modern day use does not have particularly positive connotations.

Refuting the thesis of the opponent is one of the ways Aristotle describes in his *Dialectica* (the theory of debate) to win an argument. The refutations described in *De Sophisticis Elenchis* are, according to Aristotle, just apparent refutations that he deemed typical of the way in which the despised Sophists argue. Correct discussion moves are analyzed in the *Topica*. The Sophists believed, contrary to Plato and Aristotle, that epistemologically the truth cannot be known. In their opinion as a consequence it follows that in a debate it does not matter who is right but who wins the argument. The Sophists were very happy to teach anyone who felt the need for it the knowledge and skills required to win a debate provided that they paid the requested fee.

In the following dialogue, two Sophists, Euthydemus and Dionysodorus, take turns to demonstrate their debating skills (Euthydemus 275d–276c). Socrates is describing to Crito how Euthydemus debates with the young Clinias:

[1]The methodology of both these empirical research projects is discussed and scrutinized in the next chapter.

> Well, Euthydemus began something like this I believe.
>
> Now Clinias, which of mankind are the learners, the wise or the ignorant?
>
> This was a major question; so the boy blushed, and looked at me in doubt. Seeing that he was troubled I said: My dear Clinias, cheer up and answer like a man, whichever you think, for perhaps it will do you a lot of good.
>
> Just then, Dionysodorus leaned over me, and whispered in my ear, smiling all over his face: Now look here, Socrates, I prophesy that whichever the lad answers, he will be refuted!
>
> While he spoke, Clinias gave his answer, so I had no chance to warn the boy to take care, and he answered that the wise were the learners.
>
> And Euthydemus said, There are people you call teachers, aren't there?
>
> He agreed.
>
> The teachers are teachers of the learners; for example, the music master and the grammar master were teachers of you and the other boys, and you were learners?
>
> He said yes.
>
> Of course at the time when you were learning, you did not yet know the things you were learning?
>
> No, he said.
>
> Then you were wise when you did not know these things?
>
> Certainly not, he said.
>
> If not wise, then ignorant?
>
> Yes.
>
> So you boys, while learning what you did not know, were ignorant and were learning?
>
> The boy nodded.
>
> So, the ignorant learn, my dear Clinias, not the wise as you suppose.
>
> When he said this, it was like conductor and choir – he signaled, and they all cheered and laughed, I mean Dionysodorus and Euthydemus and their followers.

Euthydemus' rebuttal of Clinias' thesis is directly followed by Dionysodorus' rebuttal of the thesis that those who learn are the ignorant. In both cases use, or misuse, is made of the ambiguity of the words "wise" ("learned" and "sensible") and "ignorant" ("untaught" and "stupid").

An example of one of Aristotle's language-independent fallacies can also be found in the same Platonic dialogue (Euthydemus 298d–299a, see Hamilton & Cairns, Eds. 1994, p. 412). The debate is conducted between Dionysodorus and a spectator, Ctesippus:

> Just tell me, do you have a dog?
>
> Yes, and a very bad one, said Ctesippus.
>
> Does it have puppies?
>
> Very much so, he said, as bad as it is.
>
> Then the dog is their father?
>
> I have seen it myself, he said, on the job with the bitch.
>
> Very well, isn't the dog yours?
>
> Certainly, he said.

> Then being a father and it being yours, the dog is your father and you the puppies' brother.
> Dionysodorus quickly broke in again, that Ctesippus might not get in his retort first.
> One more little question. Do you beat this dog?
> Ctesippus said with a laugh, No mistake, I do, for I can't beat you!
> Well then, you beat your own father, the other said.

These examples show that the distinction between language-dependent and language-independent fallacies is not without problems. The fallacy in the dialogue about learning stems from ambiguity, and is thus dependent on language, but in the dialogue about the dog the situation is more complex. The fallacy in the argument "This dog is a father, this dog is yours, therefore this dog is your father" also appears to be dependent on language rather than independent of language. According to Aristotle, however, this kind of fallacy is caused by an illegitimate shift of an attribute from an accidental property of a subject (*accident*) to the subject itself, or *vice versa* (*Sophistical Refutations* 166b 28–34, 179a 26–32.).

What Aristotle means here by "accidental" is not clear. Hamblin (1970, p. 85) thinks that Aristotle calls a property *accidental* if the subject and predicate terms of the statement in which the property is attributed to someone or something are not *convertible*. If an accidental property is treated in an argument as if it were a convertible property, a fallacy is created which is independent of language (see also Bueno, 1988). This can be illustrated by the following invalid argument, taken from Hamblin (1970, p. 85, cf. *Sophistical Refutations* 166b 34):

(1) Coriscus is different from Socrates
(2) Socrates is a man
Therefore:
(3) Coriscus is different from a man

Premise (2) contains a statement of an accidental property of Socrates, for "Socrates is a man" cannot be converted into "A man is Socrates" since not every man is identical to Socrates. It is uncertain in which way the example must be analyzed. Perhaps one may read premise (1) as attributing "being different from Coriscus" to Socrates, the subject of premise (2). In the conclusion (3) this attribute is applied to "being a man," the accident expressed in premise (2). Thus an attribute ("being different from Coriscus") is shifted from a subject (Socrates) to its accident ("being a man").

The example of the dog presents even more difficulties. What seems to be involved is that the statement "this dog is [a] father" is not convertible, because not all fathers are identical to this dog. Therefore the fatherhood must here be regarded as an "accidental" property, so that the conclusion presented cannot be drawn.

Judging from introductions to logic and popular books on fallacies such as Fearnside and Holther (1959), modern authors have little difficulty with Aristotle's language-dependent fallacies. Clear – albeit not always very realistic – examples of fallacies of ambiguity are given, generally in the form of puns. A frequently recurring example is the following (see, for example, Copi, 1982, p. 121):

(1) Some dogs have fuzzy ears
(2) My dog has fuzzy ears
Therefore:
(3) My dog is some dog

Another example is:

(1) After her finals, Laura went crazy [with joy]
(2) Crazy people [lunatics] must be locked up
Therefore:
(3) Laura must be locked up

Language-independent fallacies present more problems to modern authors, at least if they wish to stick to Aristotle's classification. In some logic textbooks, the difficulty is solved by moving the *accident* (or *accidence*) fallacy into the category of language-dependent fallacies (Cohen & Nagel, 1934/1964 for example). Usually, however, this fallacy is given a non-Aristotelian interpretation. It is then a fallacy because of the application of a general rule, without any modification, to a special case in which accidental circumstances render it inapplicable (see, for example, Copi, 1982, p. 106). The following argument is an example of this fallacy:

> Member of Parliament Giebels is entitled to publish the contents of his conversation with the Queen, since in The Netherlands we have freedom of speech.

In this argument, an appeal is made to the general rule that in The Netherlands freedom of speech applies to everybody. The fallacy arises because the argument ignores the accidental circumstance that this general rule does not apply to a confidential meeting of a Member of Parliament with the Queen.

Several other language-independent fallacies on Aristotle's list have undergone similar changes in modern textbooks, sometimes up to the point of becoming almost unrecognizable. One reason for these changes is undoubtedly the obscurity of some of Aristotle's definitions, an obscurity that is, as it were, an invitation to multifarious reinterpretations. Another reason is that many modern authors have not taken their definitions and examples of fallacies straight from Aristotle but from other authors who, in turn, may themselves not have gone directly back to Aristotle either. In this way, old mistakes may be perpetuated. The treatment of the following fallacy provides an example (Hamblin, 1970, p. 29):

(1) What you bought yesterday, you eat today
(2) You bought raw meat yesterday
Therefore:
(3) You eat raw meat today

According to De Rijk (1962), in his survey of the treatment of fallacies in twelfth-century logic, this example first appears in the *Munich Dialectica*. This argument is usually regarded as belonging to the type of fallacy which is known as

secundum quid ("in a certain respect") – in modern terminology reinterpreted as *hasty generalization* – the second of Aristotle's language-independent fallacies. In the nineteenth century, De Morgan still considered this example as a *secundum quid*, but the passage in which he discusses *accident* and *secundum quid* fallacies may easily be read as stating that the example is an *accident* fallacy. Before De Morgan, no author regarded it as an *accident* fallacy, whereas following on from him several writers do (Cohen & Nagel, 1934/1964; Copi, 1953/1972 for example).

1.2.2 The ad *Fallacies*

The most important addition to the fallacies stemming from Aristotle's list consists of the fallacies known as the *ad* fallacies, a category of arguments first distinguished by the seventeenth-century philosopher John Locke (1632–1704). Among them, the *argumentum ad hominem* ("argument directed at the man") is the most familiar.

In the study of argumentation, the term *argumentum ad hominem* is nowadays predominantly used in a pejorative sense. It refers to the fallacy of attacking the opponent personally in some way or another, instead of responding to the actual arguments put forward by the opponent in support of a standpoint. There is also a long-standing non-pejorative tradition, however, in which arguing *ad hominem* is regarded as indispensable for successful argumentation (see Nuchelmans, 1993 for the Aristotelian roots of the pejorative and non-pejorative meanings of the term *argumentum ad hominem*).

It is not quite clear what Locke had in mind when he discussed the *argumentum ad hominem* in *An Essay Concerning Human Understanding* (1690/1961, cf. Hamblin, 1970, pp. 41, 158–163 and Finocchiaro, 1974). In the chapter "Of Reason," he introduces three further types of "*ad* arguments"; *ad verecundiam*, *ad ignorantiam* and *ad judicium*. This gave him the reputation of being the "inventor" of the category of "*ad* fallacies." Yet he does not explicitly state that he considers the *ad* arguments fallacious:

> [. . .] it may be worth our while to reflect a little on *four sorts of arguments* that men, in their reasonings with others, do ordinarily make use of to prevail on their assent, or at least so to awe them as to silence their opposition (*Essay* IV, iii).

The *argumentum ad hominem* is placed third in Locke's list:

> A third way is to press a man with consequences drawn from his own principles or concessions. This is already known under the name of *argumentum ad hominem* (*Essay* IV, iii).

The latter remark reveals that Locke does not presume to be introducing anything new. His source for this meaning of *argumentum ad hominem* is not easy to trace. Hamblin claims that Locke is referring to a Latin translation of a passage from Aristotle's *Sophistical Refutations* and to several medieval treatises (1970, pp. 161–162, see also Nuchelmans, 1993). Originally the *ad hominem* made use of the other party's concessions in one's argument, but now it is a general term for the fallacy of attacking the other party's person either directly by depicting them as stupid, bad

or unreliable (*abusive* variant) or indirectly by casting suspicion on the opponent's motives (*circumstantial* variant) or pointing out a contradiction in the other party's words or deeds (*tu quoque* variant).

The following example is a modern case of an *argumentum ad hominem* in the Lockean sense:

> How can you say the casinos in Las Vegas should be closed down? You've always said everyone should be free to decide for himself what to do or not to do.

In the following text fragment, two other of the four sorts of argument mentioned by Locke are used, the *argumentum ad verecundiam* ("awe-directed argument" or argument of shame) and the *argumentum ad ignorantiam* ("ignorance-directed argument"):

> Of course, Beethoven dictated that symphony to Rosemary Brown: In *Playboy* the famous author Elisabeth Kübler-Ross recently explained that communication with the dead is perfectly possible. Anyway, nobody has ever proved that dead composers *don't* manifest themselves in this way.

The *argumentum ad verecundiam* is generally described as a misplaced appeal to authority. This does not quite accord with the literal meaning of *verecundia* ("diffidence, awe, shame, embarrassment, modesty"), though it appears to be in line with what Locke intended. With Locke, the *argumentum ad verecundiam* refers to cases in which it is suggested or stated that it would be arrogant of listeners to set themselves up in opposition to the authority to which the speaker appeals in the argument. Nowadays the term *ad verecundiam* is often used to refer to a fallacy that involves a wrong appeal to an authority.

It can be deduced from Locke's remarks that an *argumentum ad ignorantiam* for him relates to the burden of proof in a debate: It is an inadmissible way of evading one's duty to give arguments for one's point of view when expressing an opinion contrary to somebody else's. Nowadays the *argumentum ad ignorantiam* is generally regarded as a fallacious appeal to ignorance or lack of proof (as in the example above). On the basis of the observed fact that something has not been proven *not* to be the case, it is concluded that it *is* the case (or the other way around).

Although it is clear from *An Essay Concerning Human Understanding* that Locke was aware of the intended effect on others of these three kinds of arguments, it must be again emphasized that it is not clear whether Locke himself regarded the *argumentum ad hominem*, the *argumentum ad verecundiam* and the *argumentum ad ignorantiam* as fallacious arguments, as is usually the case in present-day literature (the *argumentum ad judicium* is not fallacious but sets a standard for using proofs drawn from the foundations of knowledge or probability). Definitions of the *argumentum ad hominem* which are similar to Locke's can be found in the works of the nineteenth century British logician Whately, the nineteenth century German philosopher Schopenhauer, the twentieth century American philosopher Johnstone Jr., and the twentieth century Belgian philosopher Perelman (see van Eemeren & Grootendorst, 1993).

An example of an *argumentum ad hominem* in the modern non-Lockean pejorative sense is the following:

> The argument that the state may not impose limitations on free speech and thus may not contemplate any curtailment of the cable television explosion has only the appearance of being sound. This reasoning is used by groups with a vested interest in the cable explosion going ahead. It is therefore a false argument.

1.2.3 Syllogistic and Inductive Fallacies

In his *Elements of Logic* (1826/1975), the logician and rhetorician Richard Whately aimed at giving an improved account of the fallacies from a logical point of view. Defining a fallacy in the appendix as "any argument, or apparent argument, which professes to be decisive of the matter at hand, while in reality it is not," he replaces the established definition with a wider one. Next to the class of (syllogistic) *logical* fallacies (e.g., *four terms* as a violation of the rule defining a syllogism as a form of reasoning with no more than three terms, and the, semi-logical, fallacy of *false analogy*), Whately distinguishes in his tree of classification a broad class of *non-logical* (or material) fallacies, divided into fallacies that involve a *wrongly-assumed premise* (*petitio principii*, *false premise*) and *irrelevancies* (*ignoratio elenchi*), such as the *ad* fallacies.

Whately has had a major influence on the textbook tradition in both Great Britain and the United States. Whereas Whately holds that reasoning should conform to the syllogism, the British philosopher John Stuart Mill propounded in *A System of Logic, Ratiocinative and Inductive* (1843/1970) that only inductive inferences count as reasoning. Although Mill created a category of *inductive* fallacies, his views on fallacies and the empirical investigation of fallacies have not led to crucial theoretical innovations.

1.2.4 The Treatment of Fallacies in Logic Textbooks

An important characteristic of traditional accounts in twentieth century logic textbooks is the shift in the approach to fallacies that replaced the Aristotelian dialectical perspective by a monologic perspective. Fallacy theory then deals exclusively with errors in reasoning instead of deceptive maneuvers made by a party who is trying to outwit the other party. Because some of the fallacies on Aristotle's list are intrinsically linked with a dialogue situation, one of the consequences of abandoning the context of debate is that the reason why a particular fallacy should be regarded as a fallacy may become obscure.

An example is "many questions" in Aristotle's category of language-independent fallacies. Although it is clear why Aristotle regards *many questions* as a fallacious refutation in the context of debate, it is less clear exactly why he places this wrong move in the category of language-independent fallacies. After all, it is precisely the way in which the question is framed that offers the possibility of checkmating one's adversary. This fallacy occurs when a question is asked that can only be answered by answering at the same time at least one other question that is "concealed" in the original question. In modern interpretations, the answer to the original question *presupposes* a particular answer to one or more other questions. By (implicitly or

explicitly) forcing someone to answer a question other than the one that is asked, the fallacy of *many questions* is committed. Since *many questions* hinges on the dialogue situation, this fallacy can only be adequately analyzed in a dialectic approach. In the type of debate discussed by Aristotle, the defender is allowed to split up such questions into several questions and to answer them separately (*Sophistical Refutations* 181a 36).

The following examples of *many questions* fallacies are commonly given as illustration:

(1) Are you still beating your wife?
(2) When did you stop beating your wife?

A person who answers question (1) as intended, with a simple Yes or No, thereby admits being, or having been, in the habit of beating his wife. This is because (1) contains the following presupposition:

(1a) You used to beat your wife

The same presupposition is contained in question (2), but in that case there is also a second presupposition:

(2a) You no longer beat your wife

Asking questions of the *many questions* type can serve to pin down an opponent who fails to spot the treacherous nature of such a question. According to Aristotle, such questions are incorrect ways of making opponents contradict themselves in a debate. This happens, for example, if the thesis that the defender has never beaten his wife is at some point refuted through the No answer of the defender to question (1) of the attacker (of course, the defender is in even deeper water if he answers Yes).

By addressing the dubious presupposition(s), the defender avoids giving a direct answer to the original question. In the case of question (2), this strategy might lead to these replies:

(2′) I am still beating her
(2″) I have never beaten her

Answer (2″) is the best way to parry question (2) if the discussion hinges on whether the defender is or was in the habit of beating his wife. A "direct" answer, such as "Last week," would lead to an immediate and irrevocable defeat in the debate. The wording of question (1) virtually forces the defender of the thesis to answer Yes, or No, and thus to admit what the opponent tries to demonstrate, that the defender is, or was, in the habit of beating his wife.

Instead of distinguishing fallacies *in dictione* from fallacies *extra dictionem*, like Aristotle did, logic textbooks frequently make a distinction between fallacies of

ambiguity or *clearness* and fallacies of *relevance* (e.g., Copi, 1972). The first are caused by lexical or grammatical ambiguity ("Pleasing students can be trying") or shifts of accent ("Why *did* Adam eat the apple?" versus "Why did *Adam* eat the apple?"); they correspond more or less with Aristotle's fallacies *in dictione*. Fallacies of *relevance* also include the *ad* fallacies. They are "irrelevant" because they offer no logical justification for the opinion expressed; all the same, they may be a rhetorically effective means to persuade an audience. Alongside *secundum quid*, *accident*, *many questions*, *ad hominem*, *ad verecundiam*, and *ad ignorantiam*, this category includes *false analogy*, and *ethical* fallacies (parading one's own qualities) and *pathetic* fallacies (playing on the sentiments of the audience). Other fallacies of relevance, including *begging the question,* will be discussed below.

Begging the question, also known as *petitio principii* or *circular reasoning*, means that the arguer assumes that what needs to be proven (the question at issue) has already been shown to hold. A simple and frequently cited example is: "God exists because the Bible says so, and the Bible is God's word."

Ignoratio elenchi ("ignorance of refutation") amounts in the "standard interpretation" to an argument that does not address the thesis that happens to be the point at issue, but a different opinion attributed, rightly or not, to the other party. Thus a person who doubts whether state-controlled housing projects are a useful means of alleviating the housing shortage may, for example, be opposed by advancing arguments for the thesis that there is a serious shortage of houses. This, however, is not the point at issue.

A *non sequitur* ("it does not follow") is a form of argumentation similar to *ignoratio elenchi* in which the arguments that are used and the conclusion that is drawn may in themselves be correct, but the conclusion does not follow from the arguments. In an attempt to show how incoherent the story of Jesus in the New Testament is, the Dutch author Piet Grijs once gave this absurd example:

> The devil painted the world. But he is not allowed to deduct the costs from his taxes. Then his nephew appears, in the year 1982. His nephew has an affair with the Prime Minister, and that is why the trees are turning green again.

As the name suggests, *post hoc (ergo propter hoc)* ("after this, therefore on account of this") means that just because one event follows the other temporally the first caused the second. This fallacy is used when it is claimed that the rise in (un)employment that has manifested itself since the new government took office is the result of the new government's policies, when the only reason for assuming this causal relation is the succession of events.

The *argumentum ad baculum* ("argument of the stick"), the appeal to force, amounts to resorting to the use of threats against an adversary who refuses to accept one's standpoint. The threat may involve physical force, but also other measures. Usually, threats are issued indirectly, sometimes preceded by an emphatic assurance that no pressure is being put upon the listener or reader:

> Of course, I leave it entirely to you to take your stand, but you must realize that we are your biggest advertiser (and if you publish that article about our role in Africa you can forget about our advertising account).

The *argumentum ad misericordiam* ("appeal to pity") is a fallacy in which an unjustified appeal is made to the audience's compassion in order to further one's own interests:

> If you don't improve my grade for this course I will lose my self-esteem and find it difficult to continue with my life.

The *argumentum ad populum* ("argument directed at the people"), sometimes referred to as "mob appeal" or "snob appeal," appeals to the prejudices of a particular audience. This is, for example, done by contrasting "we" (the speaker and his audience) and "they" (those against whom the discourse is aimed). The following might be an example:

> There is nothing to be gained from these proposals: We socialists all know that the arms race is carefully maintained by the arms manufacturers and that in the final analysis it's just a matter of lining the pockets of a crowd of unscrupulous shareholders.

The *argumentum ad consequentiam* ("consequence-directed argument" or "wishful thinking") is a fallacy in which a specific favorable or unfavorable light is cast on a factual thesis just by pointing out its possible desirable or undesirable consequences. For example:

> We may suppose no H-bombs will ever hit the Netherlands, for our country is so small that nothing would remain of it. (From a Civil Defense pamphlet issued in the 1960s)

Or:

> God exists; otherwise life would be without hope.

The *slippery slope* fallacy is a special case of *argumentum ad consequentiam*, in which the speculation on unsubstantiated negative consequences of a proposed course is carried to an extreme. This fallacy entails wrongly suggesting that by taking the proposed course one will be going from bad to worse. In discussions about legalizing abortion and euthanasia, this type of argument occurs frequently:

> If we start making euthanasia legal, we will end up with gas chambers as in Nazi Germany.

"*Straw man*" is the fallacy of attributing to the other party a fictitious or distorted standpoint that is easier to deal with.

Somewhere between the fallacies of ambiguity and the fallacies of relevance we find the fallacies of *composition* and *division*. The fallacy of *composition* arises when characteristics of the parts are attributed to the whole in order to make a standpoint with respect to the whole acceptable. For example:

> All the parts of the machine are light in weight; therefore the machine is light in weight.

The fallacy of *division* is the converse:

> The machine is heavy; therefore all the parts of the machine are heavy.

These examples show that properties of the parts are not automatically transferable to the whole, and vice versa. Here the words "light" and "heavy" refer to relative properties. As soon as there are enough light parts, they will make the machine heavy.

1.3 Modern Theoretical Approaches to the Fallacies

1.3.1 Hamblin's Criticisms of the Standard Treatment

In *Fallacies* (1970), an influential survey of the history of the study of fallacies since Aristotle, the Australian philosopher Charles Hamblin observed such a uniformity in contemporary treatments of fallacies in prominent logic textbooks that he speaks of *the standard treatment*, "the typical or average account as it appears in the typical short Chapter or appendix of the average modern textbook" (1970, p. 12).[2]

Hamblin's monograph, which also presented his own theoretical contribution to the study of fallacies, is now a standard work on the subject. It is important not only because of the excellent historical overview, but also because of its diagnosis of the shortcomings of the standard treatment. Hamblin's criticisms are devastating:

> [...] what we find in most cases, I think it should be admitted, is as debased, worn-out and dogmatic a treatment as could be imagined – incredibly tradition-bound, yet lacking in logic and historical sense alike, and almost without connection to anything else in modern logic at all (1970, p. 12).

This quotation illustrates Hamblin's earlier lament:

> We have no *theory* of fallacy at all, in the sense in which we have theories of correct reasoning or inference (1970, p. 11).

According to Hamblin, the shortcomings of the standard treatment already reveal themselves in the standard definition of the term *fallacy*:

> A fallacious argument, as almost every account from Aristotle onwards tells you, is one that *seems to be valid* but *is not* so (1970, p. 12).

The problem with this definition is that most fallacies discussed in the standard treatment do not fit with it. In fact, only a few formal fallacies fall easily under the definition. This applies, for example, to two cases of treating a sufficient condition as a necessary condition; *affirming the consequent* and *denying the antecedent* (inferring from the premises "If A then B" and "B" that "A," and inferring from the premises "If A then B" and "not-A" that "not B," respectively).

The mismatch between the definition and the fallacies in treating the informal fallacies is in some cases due to the fact that there is no argument; while in other cases the reason is that the argument is not invalid. As an example of the former, Hamblin mentions the fallacy of *many questions*, and as an example of the latter the

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[2]This characterization is based on textbooks by Cohen and Nagel (1934/1964), Black (1946), Oesterlee (1952), Copi (1982), Schipper and Schuh (1960), and Salmon (1963), but also applies to other textbooks, such as Beardsley (1950), Fearnside and Holther (1959), Carney and Scheer (1964), Rescher (1964), Kahane (1969, 1971), Michalos (1970), Gutenplan and Tamny (1971), and Purtill (1972). It should be added, however, that the unanimity in the textbooks is not as striking as Hamblin suggests. For differences within the standard treatment of the *argumentum ad hominem*, see van Eemeren and Grootendorst (1993, pp. 54–57).

fallacy of *begging the question* (*petitio principii*, *circular reasoning*). With respect to the fallacy of *many questions* Hamblin writes:

> [...] a man who asks a misleading question can hardly be said to have argued, validly or invalidly, for anything at all. Where are his premises and what is his conclusion? (1970, p. 39).

And with respect to the fallacy of *begging the question*, he says:

> However, by far the most important controversy surrounding *petitio principii* concerns J.S. Mill's claim that *all* valid reasoning commits the fallacy (1970, p. 35).

The problem with *begging the question* is not that the argumentation is invalid. This can be illustrated with an example:

> That is my bicycle; therefore I am the owner.

In a debate about whose bicycle it is, this argument is unlikely to have much effect, since the premise only repeats the conclusion. But according to standard logic, the argument as such is not invalid, because it substantiates a (valid) argument form:

> A; therefore A.

In still other cases, it would be greatly overdoing things if one looked for the error in the invalidity of the argument, because the fallaciousness has primarily to do with the incorrectness of an unexpressed premise. This is true for fallacies such as the *argumentum ad verecundiam* and the *argumentum ad populum*, but also for certain cases of the *argumentum ad hominem*. We can demonstrate this point by referring to an earlier example of an *argumentum ad verecundiam*:

> Of course Beethoven dictated that symphony to Rosemary Brown: In *Playboy* the famous author Elisabeth Kübler-Ross recently explained that communication with the dead is perfectly possible.

The "fault" here appears to lie not so much in the form of the argument as in the incorrectness of an unexpressed premise (cf. van Eemeren & Grootendorst, 1992, pp. 60–72). If this unexpressed premise is made explicit, the argument is not invalid *per se*:

(1) Elisabeth Kübler-Ross has said that communication with the dead is possible
(2) Kübler-Ross is an authority in the field of occultism; everything she says about it is true
Therefore:
(3) It is possible that Beethoven dictated that symphony to Rosemary Brown

This argument has the following form:

(1′) X says that S is possible; this is a statement of type T
(2′) Everything X says about statements of type T is true
Therefore:
(3′) S is possible

If an objection is made to the original argument, it is not so likely that it concerns the form of the argument. It is more likely that its content causes problems. Such an objection would, for example, be "It's easy enough for Kübler-Ross to say things like that" or "Just how does that Kübler-Ross person know so much, then?"

Another example of overdoing things by looking at the validity of the argument is Copi's illustration of the *abusive* variant of the *argumentum ad hominem*, a head-on personal attack in which the opponent is portrayed as stupid, dishonest or unreliable, thereby undermining the opponent's credibility:

> Bacon's philosophy is untrustworthy because he was removed from his chancellorship for dishonesty (1972, p. 75).

In this example, there is indeed an argument, but its fallaciousness seems to lurk in the unacceptability of the unexpressed premise (why should a swindler not have any interesting philosophical ideas?) rather than in the invalidity of the argument. Many examples of the *argumentum ad hominem* are not even presented as arguments that have the form of a premise-conclusion sequence. Granted, some of them could be reconstructed as such without difficulty, but others cannot. Take this example from Schopenhauer's *Eristische Dialektik*, written between 1818 and 1830:

> Vertheidigt er [der Gegner] z.B. den Selbstmord, so schreit man gleich "warum hängst du dich nicht auf?" [If the opponent defends suicide, one yells immediately "Why don't you hang yourself?"] (p. 685)

It is not immediately clear what a reconstruction should look like:

(a) Suicide is wrong, *because* you don't hang yourself
(b) Your defense of suicide is worthless *since* you don't hang yourself
(c) You are inconsistent *because* you defend suicide but you don't hang yourself
(d) You should hang yourself *because* you defend suicide

It is difficult to make a well-founded choice between the alternatives because it is hard to determine what the speaker can be held to. Each reconstruction seems somewhat more absurd than the next.

Here we face, in Hamblin's words, the problem of "nailing" a fallacy; the accused can quasi-naively maintain that no argument has been advanced. Hamblin describes how that defense could proceed with regard to the use of an *argumentum ad hominem*:

> Person *A* makes statement *S*: Person *B* says "It was *C* who told you that, and I happen to know that his mother-in-law is living in sin with a Russian": *A* objects, "The falsity of *S* does not follow from any facts about the morals of C's mother-in-law; that is an *argumentum ad hominem*": *B* may reply "I did not claim that it followed. I simply made a remark about incidentals of the statement's history. Draw what conclusion *you* like. If the cap fits. . ." (1970, p. 224).

Another point of criticism of the standard approach is the fact that later approaches ignored the dialectical perspective introduced by Aristotle when discussing fallacies. Later approaches tended to treat the Aristotelian fallacies as monological

mistakes. This caused many cardinal changes in the conception and analysis of fallacies. In *De Sophisticis Elenchis,* Aristotle placed fallacies in the context of a *dialogue* in which a thesis is attacked and defended. It is the attacker's task to refute the thesis that was originally put forward by the defender. In this dialectical perspective, fallacies can be taken as wrong moves in the dialectical process. In modern approaches this dialectical perspective is often replaced by a monological perspective, resulting in a one-sided focus on reasoning flaws (of one party). The devious and deceptive moves used to trick another party are described and classified from this monological perspective, but they can certainly not be analyzed in a theoretical justifiable and satisfactory way. The monological perspective is simply not relevant for the analysis of these kinds of fallacies, because they involve a dialectical exchange.

One of the consequences of leaving the debate context is that it is totally unclear as to why most of the original Aristotelian fallacies are included in the list of the standard approach. Many of the Aristotelian fallacies are inseparable from the dialogue context. An example is the fallacy of many questions. The standard example from many logic textbooks is: "Are you still beating your wife?" In a classical debate in which the turn taking consisted of questions and answers, a loaded question like this could corner an ignorant opponent, who can only answer "Yes" or "No." Both of these would express consent with the "hidden" presupposition: "You usually beat your wife." This makes it necessary to analyze this fallacy – and many others – from a non-monological, dialectical framework.

1.3.2 Post-Hamblin Treatments of the Fallacies

Hamblin's criticisms of the standard treatment have led to various kinds of reactions (see Grootendorst, 1987). In textbooks on logic, initially very little effect can be perceived. In reprints of Copi (1953), Rescher (1964) and Carney and Scheer (1964), for example, no attempt was made to deal with Hamblin's objections. Copi, for one, states in his preface to the fourth edition of *Introduction to Logic* (1972) that in the chapter on fallacies he made grateful use of Hamblin's critical remarks; a closer comparison reveals, however, that, apart from a few minor alterations, Copi strictly adheres to the standard treatment. An extreme reaction is Lambert and Ulrich's, who think that informal fallacies should best be dropped from logic textbooks (1980, pp. 24–28). Lambert and Ulrich clarify their drastic step by means of a discussion of the *argumentum ad hominem*, which they define as an attempt to cast doubt on someone's standpoint by impugning that person's reputation. They contend that it is impossible to characterize the *argumentum ad hominem* satisfactorily by appealing to its form or to its content. Their general conclusion runs as follows:

> [...] until a general characterization of informal fallacies can be given which enables one to tell with respect to any argument whether or not it exhibits one of the informal fallacies, knowing how to label certain paradigm cases of this or that mistake in reasoning is not really useful for determining whether a given argument is acceptable (1980, p. 28).

As exemplified in Hans V. Hansen and Robert C. Pinto's collection of readings, *Fallacies* (ed. 1995), Hamblin's book has been a great source of inspiration to argumentation scholars. Post-Hamblin attempts to create a better alternative to the standard treatment may differ considerably in their approaches, objectives, methods, and emphases, but they invariably refer to his criticisms. *Pace* philosophers such as Augustus de Morgan and Gerald Massey who do not believe that a theory of fallacies is possible, several new theoretical approaches have developed.

Apart from revealing their own ideas, Hansen and Pinto's book shows the active involvement in the study of the fallacies of other contemporary Canadian and American informal logicians, such as J. Anthony Blair, Ralph H. Johnson, Alan Brinton, Trudy Govier, James B. Freeman, and David Hitchcock. They pay special attention to the conditions under which a specific argumentative move should count as a fallacy. The philosophers John Biro and Harvey Siegel's (1992), still embryonic, epistemic approach represents a different view of the fallacies as failed attempts to expand our knowledge. Apart from Hamblin's (1970) own contribution to the theory of fallacies, which is cast in the mould of a system of rules called *formal dialectics*, other constructive proposals are made by the American philosopher Maurice Finocchiaro (1987) and the Finnish-American logician Jaakko Hintikka (1987). Finocchiaro opts for a middle course between abstract theoretical considerations and data-oriented empirical observation. Hintikka argues, in a dialectical vein, that the Aristotelian fallacies should not be viewed primarily as wrong inferences, but as interrogative mistakes in question-dialogues.

Various approaches to the fallacies have recently been developed that involve an extensive research program. Among them are the formal approach chosen by Woods and Walton, the formal-dialectical approach proposed by Barth and Krabbe, the pragma-dialectical approach initiated by van Eemeren and Grootendorst, and Walton's pragmatic approach. These distinct contributions to the study of fallacies will now be discussed separately.

1.3.3 The Woods–Walton Approach

The most continuous and extensive post-Hamblin contribution to the study of the fallacies is provided by the Canadian logicians and argumentation theorists John Woods and Douglas N. Walton. In a series of co-authored articles and books and several independently authored publications, they substantiate their remedy for the standard treatment; dealing with the various kinds of fallacies by calling on more sophisticated modern logics than just syllogistic, propositional, and predicate logics. The Woods–Walton approach is exhibited in the textbook *Argument: The Logic of the Fallacies* (1982). Aiming for a better and more coherent treatment of the fallacies than the standard treatment provides, Woods and Walton take the theoretical framework of logic as their starting point. They conclude that deductive logic does not suffice to deal with all the different types of fallacies. In their opinion, however, it does not follow that the theory of fallacies should necessarily be non-formal.

As their collected papers, *Fallacies: Selected Papers 1972–1982* (1989), make clear, Woods and Walton take the view that it depends on the fallacy that is examined

how it can best be dealt with theoretically. Common methodological starting points of the Woods and Walton approach are that fallacies can be usefully analyzed with the help of the structures and theoretical vocabulary of logical systems, including systems of dialectical logic, and that successful analyses of a great many fallacies will have features that qualify those analyses as *formal* in some sense. Woods and Walton tend to organize the fallacies into grades of formality. First, there are fallacies, such as the classical fallacy of *four terms*, that are formal in the strict sense: They are analyzable with the help of concepts wholly or partly described by means of the technical vocabulary or the formal structures of a system of logic or other formal theory (*four terms*, for example, with the help of the classical definition of a syllogism). At the second grade of formality, there are fallacies, such as the fallacies of *ambiguity*, which are not formal in the strict sense, but whose commission is partly made explicable by reference to logical forms. At the third grade of formality, there are fallacies, such as *petitio principii*, which are formally analyzable in an even weaker sense. This third grade of formality, which is most prominently realized in Woods and Walton's work, can be clarified by turning to a definition of formal analyzability they approve of:

> A fallacy F is *formally analyzable* to the extent that its analysis introduces concepts that are described, in whole or part, by employing the technical vocabulary and/or the formal structures of a system of logic or other sort of formal theory.

It is well worth noting that the English word "formality" is a word with multiple ambiguities. All manner of things and situations count as formal, from "formal evening" to "formal speech" all the way through to theories of logical form. There is "good form" in tennis, and telling off-color jokes is considered "bad form."

The concept of formality that gives sense to the definition of formal analyzability is approximately this. Sometimes a definition is said to be "formal" when it is exact, explicit, general and rigorous. So, for example, the definition of the successor of any number n as the number $n + 1$ would qualify as "formal" in this present sense. Similarly, a theory could be said to be a "formal theory" to the extent that its definitions were formal, and its assertions were explicitly and rigorously demonstrated. Especially significant would be those theories, such as number theory or set theory, whose sets of theorems may be infinitely large, but which are nonetheless finite axiomatically. For such a thing to be true, it is in the standard approach the case that axioms are given by way of finite numbers of *axiom schemata*.

Two examples of the formal analyses typical of the Woods–Walton approach should be mentioned here. They illustrate the general concept of formality that enters into the work of Woods and Walton at the third grade. In several chapters of *Fallacies: Selected Papers*, Woods and Walton analyze the logical structure of dialectical arguments that satisfy the "no-retraction rule" as arguments that have the property of *cumulativity*. Cumulativity is analyzed, in turn, as a certain kind of "Kripke structure," introduced by Saul A. Kripke in his *Semantical Analysis of Intuitionistic Logic I* (1965). Woods and Walton show that the fallacy of *petitio principii* cannot be committed in such structures; that is, that the formally analyzable property of cumulativeness precludes the *petition* (see, in particular, Woods & Walton, 1989, Chaps. 10 and 19).

In another example, Woods and Walton set out to show that the analysis of the fallacies of *composition* and *division* rests on a good theoretical account of the part-whole relationship. This assumption seems a reasonable one in as much as these fallacies involve incorrect inferences from properties of wholes to properties of their parts, and from properties of parts to properties of the wholes of which they are parts. In *Fallacies: Selected Papers*, the authors show that neither ordinary set theory nor a standard derivation of it known as "mereology" will suffice for the correct analysis of composition and division fallacies (1989, Chap. 8). The formal theory of the part-whole relationship known as *aggregate theory*, as developed by Tyler Burge (1977, pp. 97–118), is a more adequate theoretical tool (See Woods, 1980; Woods & Walton, 1989, Chap. 8; Burge, 1977, pp. 97–118).

In their analyses of fallacies, Woods and Walton draw upon Hamblin's concepts of *commitment sets* and *retraction*. Thus, their analyses are not only formally oriented, but also dialectical. Another typical feature of the Woods–Walton approach is that it is pluralistic. History has endowed a great many rather different phenomena with the name of *fallacy*. In Woods and Walton's view, it makes no more sense to suppose that they must all be given a common analysis than it does to suppose that all diseases should be given the same diagnosis and treatment – an analogy which is, of course, arguable.

1.3.4 The Formal-Dialectical Approach

A methodical attempt to create a "formal-dialectical" theoretical framework, partly based on the dialogue logic of the Erlangen School, is undertaken by the Dutch philosophers and logicians Else M. Barth and Erik C.W. Krabbe. They envisage a theory of rational argumentation as a finite set of production rules for rational arguments. Only (and all) arguments that can be generated by these rules are rational arguments, and fallacies can be analyzed as argumentation moves that *cannot* be generated by the rules. Barth and Krabbe provide a description of the sets of rules constituting such systems of formal dialectics in *From Axiom to Dialogue* (1982). Instead of being given *ad hoc* explanations, as in the standard treatment, in formal dialectics the fallacies can be systematically analyzed, which is illustrated in Barth and Martens (1977) with respect to the *argumentum ad hominem*. In fact, in this essay, the *argumentum ad hominem* is not treated as a fallacy but as an admissible discussion move *ex concessis*. According to Barth and Martens, each individual rule of the formal-dialectical rules for generating rational arguments states a sufficient condition for the rationality of a generated argument; fallacies can be "unmasked" as argumentative moves that *cannot* be generated by the production rules (1977, p. 96).

1.3.5 Walton's Pragmatic Approach

Douglas N. Walton's *Informal Fallacies* (1987) marks a new stage in his development as an argumentation theory. To find a solution to the problems involved in

analyzing fallacies, he now not only makes formal logic subservient to dialectic, but also turns to pragmatics, albeit pragmatics in a very broad sense. From now on Walton, a highly prolific author, tends to combine the study of individual fallacies with examining real-life cases and making theoretical observations. In his more recent analyses, he associates fallacies with illicit "dialectical shifts" from one "type of dialogue" to another. An argument that appears correct may actually be incorrect when a shift has taken place in the type of dialogue that is conducted which makes the argument no longer appropriate or even obstructive viewed from the perspective of the type of dialogue the conversationalists were originally engaged in. An *ad baculum* involving a veiled threat, for example, can according to Walton be appropriate in a negotiation dialogue, but not in a persuasion dialogue. In Commitment in Dialogue, Walton and Krabbe (1995) make a systematic attempt to develop models of dialogue that can serve as guidelines for a critical evaluation of fallacious dialogue shifts.

Early signs of the new direction in Walton's approach to the fallacies would take can be found in *Logical Dialogue-Games and Fallacies* (1984). In this book, a new theoretical approach is chosen to provide an analysis of informal fallacies frequently encountered in ordinary argumentation. In Walton's opinion, the standard treatment is lacking in the analysis of this group of fallacies because this treatment starts from a limited definition of validity. The so-called logical dialogue games developed by Hamblin, Mackenzie, Hintikka and Rescher provide a more suitable theoretical framework for the analysis of fallacies such as the *argumentum ad hominem*, *petitio principii*, *argumentum ad ignorantiam*, *ignoratio elenchi*, many questions, *argumentum ad baculum*, straw man and *argumentum ad verecundiam*. Another early sign of the direction Walton's work was going to take is *Arguer's Position* (1985). This study deals with the question under which conditions the circumstantial variant of the *argumentum ad hominem* is a sound form of argumentation. Starting from Grice's theory of conversation, the relevance logic of Davidson and Pörn, and the theoretical proposals concerning formal dialogue games, an analysis is given of the ad hominem. Walton's conclusion is that ad hominem refutations are sometimes effective and sound, but ad hominem attacks are usually not.

Among Walton's other books are *Informal Fallacies* (1987) and *Informal Logic* (1989). The first book we mentioned already; it deals with the question of how the reasonableness or unreasonableness of argumentation in everyday language can be assessed. How should argumentation be judged and when exactly is criticism justified? Walton shows that in some cases some of the informal fallacies represent a valuable form of criticism. In some cases so-called fallacies can be regarded as reasonable argumentation. A functional and dialogical perspective is chosen by Walton in *Plausible Argument in Everyday Conversation* (1992a). Walton distinguishes between various types of dialogues and different types of reasoning. He examines how arguments are used in the various types of dialogues and which fallacies can be committed. In *The Place of Emotion in Argument* (1992b) he argues that in persuasive dialogues it can be legitimate to try to convince the interlocutor by appealing to emotions. In some cases, however, such an appeal is fallacious. *A Pragmatic Theory of Fallacy* (1995) describes how an argument is (mis)used in

the context of conversation. Walton argues that the 25 odd textbook fallacies are basically types of reasonable types of presumptive arguments that have been used inappropriately in a particular normative structure of dialogue, involving a shift from one type of dialogue to another.

Some of Walton's books are specifically devoted to a particular fallacy. In *Begging the Question: Circular Reasoning as a Tactic of Argumentation* (1991), a pragmatic approach to dialogues leads to a theory of circular reasoning as an informal fallacy. Circular reasoning is analyzed as an attempt to evade the burden of proof by blocking the dialogue and depriving the opponent of the opportunity to ask critical questions. *Slippery Slope Arguments* (1992c) discusses the assessment of slippery slope arguments. Walton differentiates four types of slippery slope and provides a dialectical analysis. Other books by Walton dealing with specific fallacies are *Arguments from Ignorance* (1996a), *Fallacies Arising from Ambiguity* (1996b), *Appeal to Pity: Argumentum Ad Misericordiam* (1997), *Ad Hominem Arguments* (1998a), *Appeal to Expert Opinion: Arguments from Authority* (1998b) and *Appeal to Popular Opinion* (1999a).

1.4 The Pragma-Dialectical Approach

1.4.1 Fallacies as Rule Violations

In their efforts to offer an alternative to the standard treatment, Frans van Eemeren and Rob Grootendorst started from the consideration that there is no reason to assume from the outset that all fallacies are essentially logical errors. The fallacies could be better understood if they were treated as *faux pas* of communication – as wrong moves in argumentative discourse. Viewed from this perspective, a fallacy is a hindrance or impediment to the resolution of a disagreement, and the specific nature of each of the fallacies depends on the exact manner in which it interferes with the resolution process.

The pragma-dialectical approach to fallacies developed by van Eemeren and Grootendorst (1984, 1992, 2004) is not only *broader* than that of the standard treatment, it is also much more *specific*. In the pragma-dialectical approach, a fallacy is defined as *a speech act that counts as a violation of one or more of the rules for a critical discussion*, which impedes the resolution of a difference of opinion. Fallacies are conceived and analyzed from the same view as Aristotle originally approached them: The dialectical perspective. They are incorrect, unreasonable moves in a debate or in discussions in which (at least) two parties participate.

In the pragma-dialectical approach, argumentation is treated as part of a reasonable argumentative discourse aimed at resolving a difference of opinion. To determine what exactly it involves to resolve a difference of opinion on the merits, the theoretical component of the critical-rationalist philosophy of reasonableness is given shape in an ideal model of a critical discussion. The model specifies the various stages that are to be distinguished in the resolution process and the verbal moves that are integral parts of each of these stages. The principles authorizing the

distribution of the verbal moves over the consecutive stages are accounted for in a set of rules for the performance of speech acts. Taken together, these rules constitute a theoretical definition of a critical discussion. The overall goal of a critical discussion is to resolve a dispute on the merits. This means that the two parties who are engaged in the discussion together test the tenability of a standpoint. Every stage in the discussion involves a necessary step in the process of critical testing.

The four stages that are analytically distinguished in the resolution process are the confrontation stage, the opening stage, the argumentation stage, and the concluding stage. In the confrontation stage, a difference of opinion presents itself through the confrontation between a standpoint and (real or imagined by the protagonist) non-acceptance of this standpoint. In the opening stage, the parties to the dispute are identified as well as their apparent premises – procedural or otherwise. In the argumentation stage, the party acting as the protagonist defends their standpoint methodically against the critical reactions of the antagonist. In the concluding stage, the parties establish what the result of the discussion is; who has won the discussion? These rules by no means guarantee a resolution of the difference of opinion; they should be seen as necessary conditions, not as sufficient conditions.

For the elucidation of the pragma-dialectical analysis of fallacies, we offer the simplified and non-technical version of the rules introduced by van Eemeren and Grootendorst (2004), where the rules are reduced to a recapitulation of ten basic rules or commandments that lists prohibitions of moves in an argumentative discourse or text that hinder or obstruct the resolution of a difference of opinion.

The first commandment of the code of conduct is the *freedom rule*:

1 *Discussants may not prevent each other from advancing standpoints or from calling standpoints into question.*

Commandment 1 is designed to ensure that standpoints, and doubt regarding standpoints, can be expressed freely. Is a necessary requirement for resolving differences of opinion, because a difference of opinion can never be resolved if it is not clear to the parties involved that a difference of opinion exists and what that difference entails. In an argumentative discourse or text, the parties must therefore have ample opportunity to make their positions known. In this way, in those parts of the discourse or text in which they express the difference of opinion, they can make sure that the confrontation stage of a critical discussion is properly completed. According to the code of conduct for reasonable discussants, putting forward a standpoint and calling a standpoint into question are both basic rights that all discussants must accord each other unconditionally and without reservation.

The second commandment is the *obligation-to-defend rule* or burden of proof rule:

2 *Discussants who advance a standpoint may not refuse to defend this standpoint when requested to do so.*

Commandment 2 is designed to ensure that standpoints that are put forward and called into question in an argumentative discourse or text are defended against critical attacks. A difference of opinion remains stuck in the opening stage of the discussion and cannot on the merits be resolved if the party who has advanced a standpoint

is not prepared to fulfill the role of protagonist. According to the code of conduct, someone who puts forward a standpoint therefore automatically assumes the obligation to defend that standpoint if requested to do so.

The third commandment is the *standpoint rule*:

3 *Attacks on standpoints may not bear on a standpoint that has not actually been put forward by the other party.*

Commandment 3 is primarily designed to ensure that attacks – and consequently defenses by means of argumentation – really relate to the standpoint that is indeed advanced by the protagonist. A difference of opinion cannot be resolved if the antagonist actually criticizes a different standpoint and, as a consequence, the protagonist defends a different standpoint. A genuine resolution of a difference of opinion is not possible if an antagonist or a protagonist distorts the original standpoint in any way whatsoever. The third commandment of the code of conduct, together with the fourth, are intended to ensure that the attacks and defenses carried out in those parts of an argumentative discourse or text that represent the argumentation stage of a critical discussion are correctly related to the standpoint that the protagonist has advanced.

Commandment 4 is the *relevance rule*:

4 *Standpoints may not be defended by non-argumentation or argumentation that is not relevant to the standpoint.*

Commandment 4 is designed to ensure that the defense of standpoints takes place only by means of relevant argumentation. If the argumentation stage of a critical discussion is not properly passed through, the standpoint at issue will not be assessed on its merits. The difference of opinion that is at the heart of an argumentative discourse or text cannot be resolved if the protagonist does not put forward any argumentation, but substitutes only rhetorical devices such as *pathos* or *ethos* for *logos* instead, or advances arguments that are irrelevant to the defense of the standpoint that has been advanced but pertain to some other standpoint that is not at issue.

Commandment 5 is the *unexpressed premise rule*:

5 *Discussants may not falsely attribute unexpressed premises to the other party, nor disown responsibility for their own unexpressed premises.*

Commandment 5 ensures that every part of the protagonist's argumentation can be critically examined by the antagonist as part of the argumentation that is advanced in a critical discussion – including those parts that have remained implicit in the discourse or text. A difference of opinion cannot be resolved if the protagonist tries to evade his or her obligation to defend an unexpressed premise, or if the antagonist misrepresents an unexpressed premise, for example, by exaggerating its scope. If the difference of opinion is to be resolved, the protagonist must accept responsibility for the elements that he or she has left implicit in the discourse or text; and in reconstructing as part of a critical discussion what the protagonist has left unexpressed, the antagonist must try as accurately as possible to determine what the protagonist can be held to.

Commandment 6 is the *starting point rule*:

6 *Discussants may not falsely present something as an accepted starting point or falsely deny that something is an accepted starting point.*

Commandment 6 is intended to ensure that when standpoints are being attacked and defended, the starting point of the discussion is used in a proper way. In order to be able to resolve a difference of opinion on the merits, the protagonist and the antagonist must know what their common starting point is. A protagonist may not present something as an accepted starting point if it is not. Neither may a protagonist deny that something is an accepted starting point if it is so. Otherwise it is impossible for a protagonist to defend a standpoint conclusively – and for an antagonist to attack that standpoint successfully – on the basis of agreed premises that can be viewed as concessions made by the other party.

Commandment 7 is the *validity rule*:

7 *Reasoning that in an argumentation is presented as formally conclusive may not be invalid in a logical sense.*

Commandment 7 is designed to ensure that protagonists who reason explicitly in resolving a difference of opinion use only reasoning that is valid in a logical sense. It is possible for the antagonists and protagonists to determine whether the standpoints that are defended in a discourse or text do indeed follow logically from the argumentation that is advanced only if the reasoning that is used in the argumentation is indeed verbalized in full. If not every part of the reasoning has been fully expressed, a reconstruction of the unexpressed premises is called for in an analysis of the argumentative discourse or text. Then commandment 7 does not apply and there cannot be a question of invalid reasoning that involves a violation of commandment 7.

Commandment 8 is the *argument scheme rule*:

8 *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 means of appropriate argument schemes that are applied correctly.*

Commandment 8 is designed to ensure that standpoints can indeed be conclusively defended by arguments if the protagonist and the antagonist are agreed on a method to test the soundness of the types of arguments concerned. A difference of opinion can only be resolved on the merits if the antagonist and the protagonist agree on how to determine whether the protagonist has adopted appropriate argument schemes and has applied them correctly. This implies that they must examine whether the argument schemes that are used are, in principle, admissible in the light of what has been agreed upon in the opening stage, and whether they have been correctly fleshed out in the argumentation stage.

Commandment 9, bearing on the concluding stage, is the *concluding rule*:

9 *Inconclusive defenses of standpoints may not lead to maintaining these standpoints, and conclusive defenses of standpoints may not lead to maintaining expressions of doubt concerning these standpoints.*

Commandment 9 is designed to ensure that the protagonists and the antagonists correctly ascertain the outcome of the discussion in the concluding stage. This is a necessary, though sometimes neglected, part of analyzing and evaluating argumentative discourses or texts as a critical discussion. A difference of opinion is resolved only if the parties are in agreement that the defense of the standpoints at issue has been successful or has not been successful. A discussion that seems to have run without any hitches is still unsatisfactory if at the end a protagonist unjustly claims to have successfully defended a standpoint, or even that he or she has proved that the standpoint is true. The discussion ends in an equally unsatisfactory manner if an antagonist unjustly claims that the defense has not been successful, or even that the opposite standpoint is now proven.

The tenth and last commandment is the general *language use rule*:

10 *Discussants may not use any formulations that are insufficiently clear or confusingly ambiguous, and they may not deliberately misinterpret the other party's formulations.*

Problems of formulation and interpretation are not confined to a specific stage in the resolution process; they can occur at any stage of a critical discussion. Commandment 10 is designed to ensure that misunderstandings arising from unclear, vague or equivocal formulations in the discourse or text are avoided. A difference of opinion can only be resolved on the merits if each party makes a real effort to express his or her intentions as accurately as possible in a way that minimizes the chances of misunderstanding. Equally, a difference of opinion can only be resolved on the merits if each party makes a real effort not to misinterpret any of the other party's speech acts. Problems of formulation or interpretation may otherwise lead to a "pseudo-difference" of opinion or a "pseudo-resolution" of a difference of opinion.

In principle, each of these ten discussion rules constitutes a separate and different standard or norm for critical discussion. Any infringement of one or more of the rules, whichever party commits it and at whatever stage in the discussion, is a possible threat to the resolution of a difference of opinion and must therefore be regarded as an incorrect discussion move. In the pragma-dialectical approach, fallacies are analyzed as such incorrect discussion moves in which a discussion rule has been violated. A fallacy is then defined as a speech act that prejudices or frustrates efforts to resolve a difference of opinion on the merits and the use of the term fallacy is thus systematically connected with the rules for critical discussion.

In this approach, as soon as fallacies in argumentative discourse are discussed, the discourse is treated as if it were aimed at resolving a difference of opinion on the merits. In practice, a discourse will hardly ever be completely resolution-oriented – or completely non-resolution-oriented for that matter. For a realistic appreciation of the scope of the pragma-dialectical approach to fallacies, it is important to note that the norms provided by the rules for critical discussion apply only where and insofar as the discourse concerned is indeed aimed at resolving a difference of opinion on the merits. Although it is often clear, or it can be reasonably assumed, that this is – or is not – the case, it is not always obvious. This is one of the reasons why a discourse can only be fully and methodically screened for fallacies if it is first adequately analyzed (see van Eemeren & Grootendorst, 1992).

As it occurs in practice, even a discourse that is clearly argumentative will in many respects not correspond to the ideal model of a critical discussion – or at least not explicitly, completely, and immediately. In many cases, the hows and whys of the divergent forms of argumentative reality can be easily explained with the help of some empirical insight and in a great many cases the differences can even be explained away. At any rate, it would certainly not do simply to declare all verbal behavior that does not seem to agree with the model as automatically defective. The discourse as it has been brought to the fore can only be evaluated adequately if one has first accurately determined what it actually conveys. An analysis undertaken from a pragma-dialectical perspective is aimed at reconstructing all those and only those elements in the discourse that are pertinent to the resolution process. Such a resolution-oriented reconstruction concentrates on identifying the speech acts that play a potential part in bringing a difference of opinion to an adequate conclusion. In this endeavor, speech acts that are immaterial to the resolution process are ignored, implicit elements are made explicit, indirect speech acts are restated as direct speech acts, and unintentional swerves from the resolution path are rearranged (see van Eemeren & Grootendorst, 2004). By pointing out which speech acts are relevant in the consecutive stages of the resolution process, the ideal model of a critical discussion gives specific heuristic direction as to which speech acts are to be considered in the reconstruction process. Thus, the model is a valuable tool for accomplishing a systematic analysis. It goes without saying that a vital precondition is that the proposed analysis of a discourse in terms of a critical discussion is indeed justified; this means that the reconstruction that is given should be faithful to the commitments that may rightly be ascribed to the actors on the basis of their contributions to the discourse in the argumentative situation at hand (see van Eemeren, Grootendorst, Jackson, & Jacobs, 1993).

1.4.2 Problem Validity and Conventional Validity

Are the rules for critical discussion indeed instrumental in fostering the resolving of a difference of opinion and do they really rule out any moves that impede reaching that goal? In other words: Are these rules *problem valid*? They can only be problem valid if each of them makes a specific contribution to solving certain problems that are inherent in the various discussion stages of the process of resolving a difference of opinion on the merits (van Eemeren & Grootendorst, 2004, p. 134). Since the problem validity of these functionalistic procedural discussion rules will be discussed at length in the following chapters, we shall restrict ourselves here to an exemplary account of the problem validity of the freedom rule (see also van Eemeren & Grootendorst, 1988). Why is this rule a necessary condition for the resolution of a conflict?

Resolving a difference of opinion on the merits is only possible if the standpoint at issue and the argumentation that is put forward in defense of this standpoint can be exposed to the maximum to the critique of the antagonist. For this reason the positions of both of the parties should be absolutely clear. In other words, a difference of opinion can only be resolved if it is completely brought out into the open.

To promote this in the full sense, parties in a discussion may not limit each other's freedom to put forward standpoints, and expressions of doubt. This is exactly what is put into words in the freedom rule.

Qualitate qua, violations of the freedom rule take place in the confrontation stage; this is the reason why the freedom rule is also called the *confrontation stage rule*. Both the protagonist and the antagonist can violate this rule. The consequence of violating the freedom rule is that the difference of opinion only partly comes to light, which makes it impossible to find an adequate resolution in the idealized, normative sense.

The freedom rule can be violated in various ways. A discussant can impose certain restrictions on the standpoints that may be advanced or called into question, and he or she can also deny a certain opponent the right to advance a standpoint they would like to advance or to criticize the standpoint they would like to criticize. In the first case, restrictions as to content of the standpoints are imposed, in the second case the other party's personal liberty is infringed.

The first type of rule violations means that certain standpoints are in fact excluded from the discussion. This may also happen by declaring particular standpoints sacrosanct, so that the opponent is prohibited from casting doubt on them and they are rendered immune to criticism. The result is that the discussion never gets off the ground.

The second type of rule violations concerns infringing the opponent's personal liberty by denying him or her the right to advance a standpoint or to criticize it. Such rule violations are attempts to eliminate the opponent as a serious discussion partner. This may be done by putting pressure on him or her to refrain from advancing a particular standpoint or casting doubt on it. This may happen by putting pressure on the opponent by means of threatening physical violence or – more subtly – by threatening sanctions. In both cases the arguer commits the fallacy of *argumentum ad baculum* ("Of course you can hold that view, but you should realize that it will be very hard for me to control my men"). Another way of putting pressure on the opponent is to work on his or her emotions. The opponent is then, for example, made to understand that they will be held responsible for hurting or disappointing the person who advanced the standpoint if they start questioning it. Because the technique of restricting the other party's freedom to advance or criticize a standpoint plays on their feelings or compassion, this particular type of violation of the freedom rule is called *argumentum ad misericordiam.*

Infringing the opponent's personal liberty by denying him or her the right to advance a standpoint may also be done by discrediting their expertise, impartiality, integrity or credibility. In these cases, we speak of a personal attack or an *argumentum ad hominem.* Rather than considering the fallacies as belonging to an unstructured list of nominal categories inherited from the past, as in the standard treatment, or considering all fallacies to be violations of one and the same (validity) norm, as in the logico-centric approaches, the pragma-dialectical approach differentiates a functional variety of norms. A comparison shows that fallacies which were traditionally only nominally lumped together are now either shown to have something in common or are clearly distinguished, whereas genuinely related fallacies that were

separated are brought together. The pragma-dialectical approach not only enables a systematic analysis of the traditional fallacies, it also makes it possible to identify new obstacles in the solution process that have not hitherto been observed and analyzed. In this sense, the pragma-dialectical discussion rules "generate" new fallacies. Declaring a standpoint taboo or sacrosanct is an example of new fallacies being generated by the freedom rule. Moreover, the pragma-dialectical conception of fallacies as violations of rules for critical discussion is much more systematic than the traditional approach; the individual fallacies are not explained in an *ad hoc* way but always in terms of rule violations.

Seen from a pragma-dialectical perspective, any infringement, whichever party commits it, and at whatever stage in the discussion, is a possible threat to the resolution of a difference of opinion and must therefore be regarded as an incorrect discussion move or "fallacy." The term *fallacy* is thus systematically connected with the rules for critical discussion and defined as *a speech act that prejudices or frustrates efforts to resolve a difference of opinion*.

The rules for critical discussion are *problem valid* because they are instrumental in the resolution process by creating the possibility to resolve differences of opinion on the merits. The rules however should also be acceptable to the discussants so that they have, or acquire, *conventional validity*. It is an analytic-theoretical question whether the rules for critical discussion are problem valid, but it is a matter of empirical investigation to determine whether the rules have conventional validity. The two criteria are hierarchically ordered; the criterion of problem (solving) validity prevails over conventional validity: It seems pointless to study the conventional validity of a set of rules when it is unclear whether these rules are instrumental in the process of reaching a certain goal.

The presumption in all our empirical studies is that the discussion rules involved are problem valid; the focus is on their conventional validity. The status of the results of this empirical work is special: The empirical data can neither be used as "means of falsification" nor as "proof" of the problem validity of the pragma-dialectical discussion rules. In the event that the empirical studies indicate that ordinary language users subscribe to the discussion rules, it cannot be deduced that the rules are therefore instrumental. The reverse is also true: If the respondents in our studies prove to apply norms that diverge from the pragma-dialectical discussion rules, it cannot be deduced that the theory is wrong. Anyone who refuses to recognize this is guilty of committing the *naturalistic* fallacy, the fallacy that occurs when one inductively jumps from "is" to "ought."

The combined studies reported in this volume are focused on systematically determining if and to what extent the norms ordinary language users claim to apply in judging argumentative discussions correspond to rules that are part of the ideal model of critical discussion.

Until now it only has been shown in an exemplary way that the pragma-dialectical discussion rules are intersubjectively valid. A very tentative analysis of pieces of texts and discourse taken from essays, columns, polemics and the like in newspapers, journals and magazines shows that authors in their reaction to arguments made by others use norms that are similar to the pragma-dialectical rules

for critical discussion. More specific and more thorough conclusions than that the pragma-dialectical discussion rules seem to have an empirical basis cannot be drawn based on this material. Due to lack of experimental control, no justified conclusion can be drawn about the extent to which the various discussion rules are conventionally valid – let alone about the variables that – individually or in interaction with each other – that determine the reasonableness conceptions of ordinary language users. In order to eliminate interfering variables (for example the political "loadedness" of the topics under discussion) and to trace the influence of the various factors on the judgments about fallacious discussion moves, systematic experimental research is needed.

1.5 Plan of the Empirical Study

The organization of the comprehensive research project that is the focus of this book is systematically based on the pragma-dialectical theory and the model for critical discussion. Fallacies are not characterized as *invalid* or *unsound arguments* but as *unreasonable move*s *in a critical discussion* that should be seen as rule violations in certain stages of the discussion. This enables a systematic set-up of our empirical studies and it also makes it possible to make a justified selection from the seemingly endless list of fallacies. From the start, it was clear that empirical research into the conventional validity of all the pragma-dialectical discussion rules is practically impossible. A reasoned choice had to be made. Which of the ten discussion rules, and what fallacies will be included in our empirical studies?

We have already pointed out that one of the peculiarities of the pragma-dialectical approach to fallacies is that fallacies are not situated uniquely in the argumentation stage (as occurs frequently in monological approaches) but can occur at all stages of the process of resolving a difference of opinion: The confrontation stage, the opening stage, the argumentation stage and the concluding stage. In order to do justice to this special character of the pragma-dialectical approach, fallacies from all stages of critical discussion will be included in the studies. This is not problematic for the confrontation stage, the opening stage and the concluding stage, because there is one exclusive rule for each of these stages. The freedom rule regulates the discussion behavior in the confrontation stage, the obligation-to-defend rule regulates the discussion behavior in the opening stage, and the concluding rule regulates the discussion behavior in the concluding stage. This is different for the argumentation stage, because here there are more than one rules attached to this one stage: The standpoint rule, the unexpressed premise rule, the starting point rule, the validity rule and the argument scheme rule. Because we could only investigate one rule, we had to make a choice and decided to concentrate on the argument scheme rule.

The choice of the argument scheme rule can be justified in a number of ways. Firstly, the pragma-dialectical notion of argument scheme distinguishes the pragma-dialectical approach clearly from logico-centered approaches and this notion differs from that of other approaches (this will be discussed in more detail in Chapter 7).

Secondly, the pragma-dialectical argument schemes are a central element in the pragma-dialectical testing procedure: The protagonist tries to defend his or her standpoint by using a specific argument scheme that connects the argument with the standpoint and the antagonist of the standpoint criticizes the argumentation by asking the critical questions that belong to the argument scheme. Thirdly, the argument scheme rule – more than the other rules – enables us, as we shall show, to predict subtleties in the evaluation behavior of our respondents.

Now that it has become clear which discussion rules will be investigated, we can present the following research plan (Table 1.1).

The individual fallacies mentioned in this overview that are in the range of a specific pragma-dialectical rule do not constitute an exhaustive series of all the possible violations of that rule. For the freedom rule and the obligation-to-defend rule, however, all rule violations are included that have been distinguished so far. In that sense these two rules are fully covered. The violations of the argument scheme rule and the concluding rule mentioned in the overview must be seen as samples taken from a great number of possibilities. In spite of the fact that *secundum quid*, the *argumentum ad verecundiam* and the fallacy of *post hoc ergo*

Table 1.1 Overview of the fallacies and discussion rules under investigation

Stage in the critical discussion	Fallacy
Confrontation stage (Freedom rule)	With reference to the opponent: – *argumentum ad hominem* (abusive variant) – *argumentum ad hominem* (circumstantial variant) – *argumentum ad hominem* (*tu quoque* variant) – *argumentum ad baculum* (physical and non-physical variant) – *ad baculum* (direct and indirect variant) – *ad misericordiam* With reference to standpoint: – declaring a standpoint taboo – declaring a standpoint sacrosanct
Opening stage (Obligation-to-defend rule)	Shifting the burden of proof Evading the burden of proof (non-mixed dispute): – presenting the standpoint as self-evident – giving a personal guarantee of the rightness of the standpoint – immunizing the standpoint against criticism Evading the burden of proof (mixed dispute): – only the other party must defend his or her standpoint as a result of applying the principle of presumption or the criterion of fairness
Argumentation stage (Argument scheme rule)	*Argumentum ad consequentiam* *Argumentum ad populum* Slippery slope False analogy
Concluding stage (Concluding rule)	*Argumentum ad ignorantiam*

propter hoc are well known violations of the argument scheme rule, they are not included in our empirical studies. This "omission" does not harm the overall quality of this empirical project. Assuming that the respondents consider the argument scheme rule fallacies examined in our research (*ad consequentiam*, *ad populum*, *slippery slope* and false analogy) unreasonable argumentative moves, what theoretical reasons would there be to suppose that the other fallacies would deviate substantially?

1.6 Structure of this Volume

In Chapter 2, we discuss the considerations – particularly those concerning the methodology – that lead to the experimental set-up we have chosen. By means of a discussion of two empirical studies conducted by others concerning the norms that ordinary arguers users claim to apply when evaluating argumentation, specific conditions and requirements are discussed pertaining to internal, external, and ecological validity that play a role in our empirical research.

In Chapter 3, we describe the way in which these specific conditions and requirements are implemented in the concrete research set-up. This is done by a precise and thorough account of an experiment focusing on the three variants of the *argumentum ad hominem* (all violations of the freedom rule). The internal validity of the experiment is the focus of our attention and we shall show in what ways we tried to eliminate alternative explanations of our findings. In order to avoid having to explain all the methodological steps over and over again for the empirical studies that follow, we provide here an exemplary explanation.

In Chapter 4, we report about our experiments with regard to other violations of the freedom rule. Both the internal validity and the external validity of the experiments will be discussed at length. In relation to this, some new and so far unpublished experiments will we reported that took place in several other countries than The Netherlands.

In Chapter 5, the conventional validity of the obligation-to-defend rule (for the opening stage) will be discussed. In this chapter we limit ourselves to "non-mixed" differences of opinion, in which only one of the parties involved (the protagonist) voices a standpoint and the other party (the antagonist) puts forward doubt regarding the antagonist's standpoint but does not advance a standpoint.

The obligation-to-defend rule is also the topic of Chapter 6. This time, however, we look at mixed disputes in which both parties put forward a standpoint regarding a certain issue. Because in such cases both parties are responsible for the defense of their own standpoint they both have the burden of proof. Here, the notion of presumption proves to be an important concept. The central issue in Chapter 7 is the argument scheme rule for the argumentation stage. In Chapter 8 we discuss our research concerning the *argumentum ad ignorantiam* as a violation of the concluding rule. Finally, in Chapter 9, we present the main findings of this comprehensive empirical research project.

Chapter 2
Considerations Regarding the Design of the Study

2.1 An Outline of Methodological Backgrounds

With the aid of a series of interlinked empirical investigations, we attempt to systematically determine whether and to what extent the norms that ordinary arguers generally speaking take (or say they take) into account when participating in argumentative discourse are in accordance with the rules of the ideal model of critical discussion. To exclude interfering variables and to be able to track the influence of various factors on the judgment concerning the permissibility of certain discussion moves, experimental research was performed in which constructed discussion fragments were employed in which a particular pragma-dialectical discussion rule was sometimes, and sometimes not, violated. In brief, constructed dialogues were used in which a fallacy was committed, or not committed, by the discussion participants. "Normal" assessors – ordinary arguers who do not have any specific expertise in the field of argumentation theory and who have also not been systematically trained in this area – were then asked to give their judgment on the reasonableness of such discussion moves. Each time they were able to make this judgment known on a "Likert" scale that comprised seven classes, ranging from "highly unreasonable" to "highly reasonable." This quantitative, hypothesis-testing part of the research was completed with a more qualitative and explorative part in which the respondents were asked briefly to explain and provide a rationale for some of the judgments they gave: "Why do you consider this discussion move reasonable/unreasonable?" These qualitative data were then analyzed and interpreted with the aid of coding schemes in order, if possible, to support the quantitative data and also in order to investigate to what extent ordinary arguers have some notion of the pragma-dialectical argumentation rule that is violated in the constructed discussion fragments.

This is, in very general terms, the methodological approach in the research performed. Why was such an experimental structure chosen? Could it have been done differently?

Up to the present time extremely little empirical research has been performed into the notions of ordinary arguers concerning the reasonableness (or soundness) of argumentation in general and of fallacies in particular. The characterization of "extremely" is all the more appropriate here when it is appreciated that fallacies have been the subject of study since classical times and that particularly from the end of

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the nineteenth century there has been an immense flow of theoretically focused publications on this (see Chapter 1) – but empirical research into how ordinary arguers view these discussion moves so rebuked by argumentation theoreticians has been totally lacking, at least until the 1990s.

How may this scant empirical interest be explained? We see at least three explanations for the paucity of empirical interest. Firstly, the study of argumentation and fallacies has been dominated since the end of the nineteenth century by logicians and philosophers, a theoretical-analytical group that in terms of background, education and specific interests may be not so much characterized by the term "anti-empirical" as by the term "a-empirical." Secondly, as was explained in Chapter 1, there was hardly any agreement between argumentation theoreticians on fundamental issues such as the perspective from which fallacies ought to be studied (from a logical, dialectic or rhetorical perspective), the specific "fallacious" nature of fallacies (for example: What is actually wrong or incorrect in the personal attack?), the number of fallacies that should be distinguished (some theoreticians distinguish about 15, others up to 200), the way in which the identified fallacies should be further classified in a systematic taxonomy, and so on. All this in spite of Hamblin's observation of the general uniformity of the treatment of fallacies in the leading textbooks on logic. In light of this state of fallacy research, it can hardly be a great surprise that empirical research is only getting off the ground with difficulty. Thirdly – and this point is associated most closely with the problems covered previously – there are no or hardly any normative argumentation theories available in which rules or criteria have been formulated on the basis of which a systematic and unambiguous distinction can be made between sound and unsound forms of argumentation. From this perspective it is also not surprising that, unlike for the informal fallacies – the fallacies that are central to this book – for the formal fallacies (in other words, logical argumentation errors such as the fallacy of *affirming the consequent*) there is a long and rich research tradition, particularly within cognitive psychology.[1] Within a logical system such as Aristotelian logic or propositional logic, it is of course absolutely clear which argumentation (or rather which substitutions of forms of reasoning) must be regarded as valid and which as invalid.

In addition to the cognitive-psychologicaly oriented research into formal fallacies, since the 1950s there has been a rich empirical tradition of research into the persuasive effects of (specific forms of) argumentation. Although it may by and large be expected that there will be some connection between the persuasiveness of argumentation and the reasonableness of argumentation (who would let themselves be convinced by unreasonable argumentation?), it should nevertheless be clear that the contents of the two terms, *persuasiveness* and *reasonableness*, do not coincide. Sound, or in other words reasonable, argumentation does not have to be perceived

[1] See for instance Evans, *The Psychology of Deductive Reasoning* (1982) and *Thinking and Reasoning: Psychological Approaches* (1983). At this point it is good to note that these studies cover the cognitive aspects of reasoning and not the use of forms of reasoning in argumentative discussions.

as convincing *per se*. Other, more psychologically tinted factors such as someone's original attitude regarding the defended standpoint, the credibility of the source, the involvement of whoever must be convinced of the defended standpoint, and so on, play a part in convincing that is not to be underestimated. Conversely, unreasonable argumentation does not *per se* have to be unconvincing in all circumstances. A necessary, though not sufficient condition for this is that the person or audience to be convinced must also get the message that there is something amiss with the argumentation adduced.

2.2 Bowker and Trapp's Research of Ordinary Arguers' Assessment of Argumentation

Whatever else may be thought of the tentative explanation given above for the lack of empirical research into the reasonableness conceptions of ordinary arguers, it is a fact that Bowker and Trapp (1992) deserve credit for having broken through the existing impasse with an empirical study in which an explicit attempt was made to answer the question of whether ordinary arguers apply predictable, consistent criteria on the basis of which they distinguish between sound and unsound argumentation ("good arguments" from "poor ones"). A discussion of this study is appropriate here not so much to illustrate that the methodology they followed and their statistical approach are inadequate in a number of aspects, but to show that the method followed by us is from both theoretical and methodological viewpoints fundamentally different from that of Bowker and Trapp and in light of our special objective – the "assessment" of the conventional validity of the pragma-dialectical discussion rules – also merits preference. By contrasting our approach with that of Bowker and Trapp, for example, the choices made by us, in both the area of theoretical starting point and the experimental – methodological approach associated with this, are more sharply exposed and it becomes clearer what type of validity is at the center of the experimental research we performed.

The large-scale empirical study performed by Bowker and Trapp into the reasonableness conceptions of ordinary arguers consists in fact of five steps. At each of these steps, which we will discuss in the paragraphs below, it is possible to provide technical as well as more principal commentary.

The First Step: Eliciting Situations Characteristic of Sound and Unsound Argument

In the first step – the most important in fact, since this step constitutes the starting point for the further development of the study and is consequently all-determining for the final results of the empirical research as a whole – approximately 200 respondents, pre-doctoral communication sciences students, were asked an "open" question to describe a situation in which another person had attempted to convince

them of the acceptability of a standpoint. In addition, the respondents could not simply describe any situation they wished in which there was argumentation; they were expressly instructed only to describe those situations in which they were of the opinion that the argument put forward was good, *irrespective* of the issue of whether they had actually been convinced by the argument made. Furthermore, the respondents had to describe and explain as completely as possible on what grounds the argument put forward deserved in their opinion the predicate "good." Once the respondents had answered these questions on the – in their opinion – good argumentation, they then had to once more complete the same "open" questions, but now for "poor" argumentation.

In this first step in Bowker and Trapp's study, at least three critical side notes may be added. Firstly, it is clear that there is no theoretical normative notion of the soundness of argumentation acting as the basis of this empirical study. On the contrary, it was the intention of the researchers to develop a strictly empirical concept of reasonableness. This is in itself certainly possible. This empirical-descriptive concept is, however, in principle determined by the response behavior of this more or less incidental group of 200 respondents in the study.

Secondly, the question asked of the respondents is certainly very abstract and the respondents in all likelihood will have seldom if ever consciously thought about the reasonableness and unreasonableness of argumentation. This casts doubt on the reliability and validity of the answers given. Can the respondents in, for example, the assessment of the soundness of the argumentation actually separate the rhetorical effectiveness of argumentation from its "intrinsic" quality? Independent data on (aspects of) the quality of the answers given by the respondents on, for example, the stability of these answers is not supplied.

Thirdly, another point of criticism concerns the non-specific nature and indeterminacy of the type of situation in which the discussions took place. By not determining the type of discussion situation in the instructions and not specifying them further in concrete terms, but having them elaborated by the respondents themselves according to their own preferences, the researchers are already implicitly assuming in the chosen form of questioning that language users apply situation- and context-independent criteria for the assessment of the quality of argumentation. This appears from an empirical point of view to be a risky assumption. In the further development of the study there is no longer any opportunity whatsoever to test this assumption empirically and possibly to reject it.

The Second Step: Construction of a List of Descriptive Terms for Sound Argument and Unsound Argument

In the second step of Bowker and Trapp's empirical research, a list of descriptive terms was drafted based on the answers given by the respondents that according to these students were characteristic of sound versus unsound argumentation. Each descriptive term that was stated by a student was included in the list. Yet Bowker and Trapp were evidently not completely sure of the quality and completeness of this list

since they added themselves a number of items to those produced by the students (precisely which and how many is not stated), based on their "own knowledge of informal fallacies" (1992, p. 221). This whole procedure ultimately resulted in a list of 174 items, in the form of descriptive terms that the students and the researchers themselves deemed typical for sound and unsound argument.

Two hundred respondents, 174 items: Even if we imagine that Bowker and Trapp only added about ten terms to the original list, it is still clear how great the diversity in this huge list is. This indicates a major lack of consistency and homogeneity in the classifications given by the students – stronger than this, it appears very much as though each student ventilated his or her own individual, particular concept of soundness in the descriptions. Bowker and Trapp do not say a word about this lack of agreement between the students and just as little about the disastrous consequences of this for the empirical concept of reasonableness to be developed by them.

The Third Step: Construction of a Questionnaire on the Soundness and Unsoundness of Argumentation

In the next step of the study, the long list of 174 descriptive terms is rewritten – although it is not exactly clear how this was done – and included in another type of questionnaire: A Likert type in which 352 (other) respondents had to state on a scale of 1–5 to what degree they were in agreement or not in agreement with a qualified assertion on the soundness or unsoundness of an argument proposed by the respondents. By way of example we quote one of these 174 assertions in this type of questionnaire: "The arguer used clear reasoning." The 352 respondents were now asked to put themselves in two situations in which argumentation was brought to the fore; one in which (in their opinion) sound argumentation was used and another in which unsound argumentation was used. In the instructions it was emphasized that the respondents should primarily let the choice of the two extreme situations depend on the soundness or unsoundness of the argument, and not so much on the fact of whether whoever had brought the argument forward had actually been successful in their attempt to convince. These 352 respondents (a relatively homogenous group comprising 218 students and 134 non-students) then assessed each of the 174 descriptive terms on scales of 1–5. This procedure was performed twice, once for sound and once for unsound argumentation.

It was apparent from this third step that, just as for step 1, Bowker and Trapp are not so much seeking a strict rhetorical notion of soundness in which the quality of argument is measured solely on its success with the intended audience, but evidently also a pre-theoretical notion of the intrinsic quality of the argument. Whether the respondents could, however, indeed take the required abstract steps in this connection and, even if they could do so whether they in fact did this, is still the question and may, as previously argued, be viewed empirically as not controlled. To what extent the empirically developed notion of soundness and the criteria that ordinary

arguers apply in the assessment of the soundness of arguments are "infected" by rhetorical influences therefore remains unclear.

The assessment criteria that the researchers are attempting to arrive at from their investigated group of respondents are determined completely by the original list of 174 descriptive terms yielded by step 1. A term that, for whatever reason, was not mentioned by the respondents in step 1 or was not added to the original list by the researchers based on their personal knowledge of informal fallacies, could no longer appear in the description and explicit formulation to be ultimately created for the reasonableness norms of ordinary arguers.

Bowker and Trapp make no prediction whatsoever as to the content, the structure or the form of the evaluation criteria that the respondents apply, or say they apply, in their distinction between sound and unsound argumentation. It is the "empiricism" that must first and last dictate the liberating answers.

The Fourth Step: Reduction via Discriminant and Principal Component Analysis

In the fourth step of the research, Bowker and Trapp apply two statistical procedures to the data to reduce the huge quantity of empirical data from step 3 to manageable proportions. The data-reducing techniques employed by them concern discriminant and principal component analysis.

To arrive at which descriptive terms discriminate most strongly between good and poor argumentation (at least "good" and "poor" argumentation as understood by the respondent, so not further determined using external, independent criteria), a discriminant analysis was applied (with good versus bad argumentation as binary criterion and with the full collection of 174 descriptive terms as predictors). This procedure resulted in 72 discriminating items (descriptive terms).

This data-reducing step was not based on any theoretical consideration whatsoever, but was solely statistical (the decision criterion for the distinction between "good" and "poor" argumentation was based only on an F-value for inclusion in the regression comparison). But why then do just these 72 descriptive terms have a high discriminating power and why all the other 102 words were deleted remains unclear. Nowhere in this context the researchers made the slightest attempt at an explanation of this.

The number of 72 discriminating terms was according to Bowker and Trapp still too large to be interpreted. Again, an a-theoretical, strictly statistical and explorative data reduction procedure was applied (a principal component analysis) to keep a manageable number of items that would make interpretation possible. With such an analysis, items are selected that have a high correlation between them; these are placed in the same groups, called factors. It is then for the researcher to interpret these factors (*ad hoc*): What do the items within the same group have in common, what is the binding element?

The component analysis resulted in seven factors. Since the first factor explained 27% variance (and the remaining factors 2–6%), Bowker and Trapp regarded the

solution found as a single factor solution. All items that loaded on the six other factors were removed. The reason for this removal is, again, statistical in nature: In what theoretical sense the removed items deviate remains unclear.

In addition, not all the items that loaded on the first factor that was selected for interpretation were also deemed suitable for the final interpretation. Again, substantial considerations are lacking here; the introduction of a purely statistical criterion for the "significance" of an item (namely the factor loading must be greater than 0.40) ultimately resulted in 28 items.

The Fifth Step: Further Reduction via Factor Analysis; Interpretation of the Factors

These 28 descriptive terms obtained on statistical grounds with which the respondents therefore made the maximum distinction between sound and unsound argumentation were not interpreted directly. An explorative data technique was again unleashed on this collection of items (factor analysis, followed by a varimax rotation). This, at least in the opinion of the researchers, resulted in four interpretable factors. These are the factors that finally "must provide insight into the question of how good argumentation distinguishes itself from poor argumentation" (1992, p. 220).

Note that this factor analysis, just as the statistical analyses in the previous step, is explorative in nature and that the interpretation of the four factors is accordingly *ad hoc*.[2] What do these four factors constructed via inductive-statistical procedures come down to in terms of content according to the researchers? In other words, in what lies the distinction between good and bad argumentation? The first factor (or assessment criterion) is classified by Bowker and Trapp as "individual elements," the second factor as "emotions," the third as "connections" and the fourth as "arguer-argument congruence."

It requires little argument to make clear that these verbal descriptions do not clarify anything; without knowledge of the concrete items that a particular factor signifies, it is impossible to ascertain what the factors precisely include, which is a result of the methodological approach applied.[3] But even with knowledge of the individual items it is by and large not clear what a factor (an assessment criterion) precisely contains, let alone that it might be possible to classify this factor concisely and unambiguously with the aid of a single term. An example: Bowker and Trapp

[2]There is a similar technique, called "confirmatory factor analysis," in which a researcher specifies models in advance on the basis of theoretical considerations and then tests these with empirical data. Unlike a strictly explorative factor analysis as that of Bowker and Trapp, a confirmatory factor analysis does offer the possibility of confirming or falsifying *a priori* specified theories or theoretical models.

[3]The only thing that Bowker and Trapp note here is that in contrast to the second factor ("emotions"), "individual elements" relates to "the ideas that constitute the argument." It should be clear that this determination does not contribute much to the understanding of this assessment criterion.

classify the first factor as "individual elements," and this factor contains "some general items" such as "The arguer made sense," "The arguer used poor judgment" and "The arguer had clear reasoning." Yet they do not stick only with these "general items": The factor concerned – curiously enough – also contains items on specific elements: "Crucial points about the issue," used many examples. Even if these items that typify the factor concerned are brought into the interpretation of this factor in order to obtain a somewhat clearer view of what this assessment criterion exactly means, it is still evident how vague the resulting solution regarding the soundness problem and the soundness criteria applied by the respondents really are. Since what is really to be understood by, for example, "clear reasoning," by "made sense of," by "poor judgment" or by "used many examples?" Giving many examples is according to the opinion of the respondents evidently indicative of 'sound' argumentation (sound argumentation as the respondents understand it) – but what is many exactly? Two, four or perhaps six examples? And good argumentation – whatever 'good' might be taken to mean – is of course not solely and utterly dependent on the quantity of the examples given. Should not the quality of the examples, even in the opinion of the respondents, also play a part? Nevertheless, the researchers claim that the four factors "that emerged from the participants" answers appear to be valid and reliable indicators of the distinction between good and poor arguments" (1992, p. 226).

Due to all this conceptual vagueness and indistinctness, the assessment criteria resulting from this empirical research that these respondents are deemed to apply in the assessment of the soundness of argumentation are vague and unclear.[4]

2.3 Implications of the Discussion of Bowker and Trapp's Research

All in all, it may be concluded that Bowker and Trapp's empirical research discussed here is not based on any theory whatsoever on the notion of soundness. The empirical concept ultimately reached is purely *ad hoc* – generated by "more or less incidental" subjects. This means that it remains unclear what this concept exactly implies. No concrete predictions can be attached to this group-associated concept on how this group or comparable groups would assess specific argumentation for soundness in a concrete case.

In contrast, in the experimental research we perform, we purposefully start out from a theoretically based concept of reasonableness, namely that of pragma-dialectics: Discussion moves are reasonable insofar as they make a contribution to the resolution of a difference of opinion on the merits, they are unreasonable if they

[4]Bowker and Trapp's (1992, p. 228) conclusion that the judgments of the respondents partially correlate with the reasonableness norms that informal logicians such as Johnson and Blair, and Govier apply, cannot be inferred from the results of their empirical study, in view of (among others) the indeterminacy of the factors obtained by them.

impede or get in the way of resolving a difference of opinion on the merits. In all our studies, the central question remains unchangingly whether and to what extent the (pre-theoretical) assessments of ordinary arguers match with this. The pretensions of our research are therefore more modest that those in the research of Bowker and Trapp: We are concerned not with empirically generating a concept of soundness, but with determining the "distance" between a theoretical-normative ideal and empirical-descriptive practice.

Unlike in the correlational, *ex post facto* research of Bowker and Trapp, in the experiments we perform it is not so much the external validity that is to the fore (can the results obtained be generalized in a sound manner to other, relevant groups of respondents not involved in the research?) but the internal validity. In this latter type of validity, the issue is whether the effects ascertained can be unambiguously ascribed to the experimental manipulation. By way of example, let us assume that the respondents in our experiments are given a series of discussion fragments in which the rule for the confrontation stage is violated so that a discussant is guilty of the *argumentum ad baculum* ("argument of the stick") in which one discussion party threatens the other party with physical violence or with sanctions if they do not distance themselves from the standpoint put forward. Let us also *for the sake of argument* assume that from the quantitatively obtained data it is apparent that these fallacious discussion moves are deemed less reasonable than those in which there is no violation of one of the ten pragma-dialectical discussion rules. The internal validity issue in this example amounts *in concreto* to the following: Can the judgments of ordinary arguers on the reasonableness or unreasonableness of discussion contributions be attributed unambiguously to the fact that in these contributions *ad baculum* fallacies arise or do not arise, in other words that in these contributions the confrontation rule is violated and that these contributions are therefore deficient from an *argumentative point of view*? Or may possibly other explanations for such results be put forward, the fact for example that in a democratic society in which freedom of expression of opinion is set down in law, it is "not done" to threaten an opponent in a discussion with violence, or in some way with more subtle means? One of the most poignant alternative explanations for such results is the variable "politeness." Respondents might consider *ad baculum* fallacies unreasonable not so much due to the fact that these are an unsound form of argumentation as due to the fact that with this type of threat the politeness rules applying to discussions are flagrantly violated.

For the optimization of both types of validity, other paths must be followed. The external validity can be guaranteed by, for example, involving other types of groups of respondents with other relevant background variables in the research, the internal validity must be maximized by taking procedural and methodological measures so that alternative explanations of the research results can be radically excluded. The primary focus in the research performed by us is, as in all experimental research, on the internal validity. Thus ample attention is devoted to the exclusion of alternative explanations for the research results encountered. This does not, however, mean that the external validity should be completely neglected. On the contrary, to guarantee this external validity, the *ad hominem* study that has been initially performed in

The Netherlands has been replicated in various European and non-European countries (Germany, England, Spain and Indonesia).

Our respondents are recruited virtually without exception from the population of secondary school (high school) students with a minimum age of 15 years. This choice is on the one hand based on purely practical considerations – availability – and on the other hand on considerations of a more theoretical nature. From empirical research undertaken previously by us into factors that facilitate the identification of argumentation (for example, indicators of argumentation such as "because," "therefore," and so forth) it was apparent that for a substantial part of the 13–14 year old students insight, knowledge and the use of argumentation theoretical terms such as "standpoint" went somewhat over their heads, while 15-year-olds for the most part have the required reflective-deductive powers to deal with such concepts (van Eemeren, Grootendorst, & Meuffels, 1985). Therefore the age of 15 years was chosen as the lower limit.

Bowker and Trapp do not restrict themselves in their explorative study only to answering the question of whether normal language users apply coherent theories to distinguish between good and bad arguments. Their second, equally exploratory, research question concerns the role of gender in the distinction between good and bad arguments: Do men and women use exactly the same criteria when distinguishing between good and bad argumentation? Based on their research, they conclude that "about two thirds of men's discrimination is random while only half is random for women" (p. 227). As a caution, they continue thus:

> With regard to these findings, sex does distinguish between people's interpretations of arguments as good or poor. Normative theory developed without regard or attention to this human variable could well risk the error of assuming that the essence of a human activity – such as argumentation – can be derived from sources and through means that are not affected by such characteristics as sex. Indeed, the sex of the theorist himself or herself may, according to these findings, influence the decisions about the means by which good arguments are distinguished from poor ones (p. 227).

How this difference between men and women – assuming that the difference can indeed be ascribed some practical significance: The Bowker and Trapp study only involved a difference between men and women of a few percent in explained variance – may precisely be explained in theoretical terms, even *post hoc*, remains unclear. However it may be, we should include the variable "gender" as a background variable in our study, starting explicitly from a normative theory, and link to this the prediction that men and women, unlike Bowker and Trapp presume and purport to see in their study results, do not differ in their judgments on the reasonableness or unreasonableness of discussion fragments.

The final question that Bowker and Trapp attempt to answer with the aid of their research is whether the theories that social actors apply to distinguish good argumentation from bad argumentation – assuming that such theories may indeed be detected – are consistent with normative theories for the assessment of argumentation as proposed by informal logicians such as Johnson and Blair ("acceptability, relevance and sufficiency"). Although Bowker and Trapp are of the opinion that their empirically found criteria at first sight do not differ that much from

the theoretically derived criteria of the cited informal logicians, a closer examination nevertheless leads to the conclusion that "while our findings can be interpreted to support the kinds of criteria advanced by many informal logicians, they also point to the need to expand these criteria to include the personal elements of logic" (1992, p. 229). However, the leap made by Bowker and Trapp from "is" to "ought" expressed in the phrase: "The need to expand these criteria" is questionable; this leap from fact to norm is known by as the "naturalistic fallacy."

2.4 Schreier, Groeben and Christmann's Studies on "Argumentational Integrity"

A completely different research approach was developed, also in the 1990s, by a group of German researchers, in particular psychologists, who introduced the concept of "argumentational integrity" to develop ethical criteria that could be used to assess contributions to argumentative discussions in daily life (Schreier et al., 1995). The approach of these researchers is undoubtedly much more theoretically motivated, at least in the first instance, than the study by Bowker and Trapp, which may be qualified as "empiricistic." Additionally, unlike the Bowker and Trapp study, which – as far as we are aware – did not lead to any follow-up study, the German group performed a whole series of experimental follow-up studies in the context of the concept of "argumentational integrity." A discussion of this approach is appropriate because this research is in our opinion in principle more scientifically thought out and therefore also a more promising approach to the soundness standards of ordinary arguers. Although a great deal of commentary and criticism would be possible on the underlying theory, we restrict our critical considerations to the empirical part of their studies.

2.4.1 Rules for Argumentational Integrity

Schreier, Groeben and Christmann start from the observation that when during an argumentative discourse one of the discussion parties performs unfair manipulations or knowingly misrepresents the facts or discredits other discussion parties in his or her attempt to impress their own standpoint and only their standpoint, and so on, such behavior will as a rule be judged negatively by the other participants. Such negative judgments then indicate according to the researchers that argumentative discussions are regulated by specific norms and values that have been transgressed by the discussion party concerned. Part of these norms and values that are in a specific sense relevant for the assessment of argumentative discussions are summarized by the authors and placed under the concept of argumentational integrity.

The concept of argumentational integrity is further developed in a theoretical way by the authors by starting from – what they call – the prescriptive use of the

term "argumentation." According to them, such use is based on two characteristic objectives of an argumentative discussion: Rationality and collaboration. If, however, these two characteristic objectives of argumentation are to be fulfilled, the following rules must be taken into account:

1. Formal validity: Arguments must be valid, both in form and content.[5]
2. Sincerity/truth: The participants in an argumentative discussion must be sincere. This means that only those opinions and convictions may be expressed (and argumentation may be put forward to support these opinion and convictions) that they regard as correct themselves.
3. Justice on the content level: Arguments must be just with respect to the other participants.
4. Procedural justness/communicativity: The argumentative procedure must be undertaken in a just manner, which means that all participants must have equal opportunity to provide their own contribution to the resolution of the difference of opinion according to their own individual (relevant and defensible) beliefs.

Based on these four requirements, Schreier, Groeben and Christmann define the concept of argumentational integrity that is essential for their objectives as "the requirement to not consciously violate the argumentative conditions" (1995, p. 276). In the extension of this, they define unreasonable argumentation ("unfair argumentation") as a conscious violation of these argumentation rules.

A just imputation of a transgression of "argumentational integrity" presupposes according to the authors that two conditions have been met. Firstly, there must be a violation of the rules, and secondly this violation must have come about more or less knowingly ("the speaker (. . .) is at least intuitively aware of having committed this violation") (1995, p. 276). This second component in particular turns the concept of "argumentational integrity" into an exceptional *psychological* concept: It depends (in addition to the severity of the rule violation as estimated by the judgers) also on the estimation of the judgers as to whether a rule has been violated "unknowingly," "by negligence," or "intentionally," thus also whether and to what extent a discussion party can be imputed for reproachful behavior. An implication of this psychological-empirical method of approach is that, unlike in the theoretical pragma-dialectical perspective in which fallacies can be identified as unreasonable moves independently of any judgments of ordinary arguers, within the perspective chosen by the authors it may not be determined beforehand whether a certain argumentative move – a universally acknowledged fallacy for example – is unfair, because this depends on the assessment of the judgers.

[5] We do not know what can be meant by "validity of content."

2.4.2 The Empirical Extraction of "Standards of Fair and Unfair Argumentation"

Since, according to Schreier, Groeben and Christmann, the four argumentation rules they formulate are too abstract to be applicable in concrete situations, they performed an empirical study in which 90 respondents (including both experts and lay people) were asked to assess from an ethical point of view dubious (at least dubious according to the authors) rhetorical strategies for (amongst other things) unfairness. These 35 rhetorical strategies were, according to the authors, "representatively chosen from popular rhetorical literature" (1995, p. 283).

The term *representative* used here is misplaced for more than one reason. Perhaps the dubious rhetorical strategies were taken aselectively, in other words "at random," from the gathered literature, but a sample taken aselectively is not necessarily representative. To equate the terms "aselectively" (in this case the way in which a sample is created) and "representative" (in this case the degree to which the sample, however it has been created, constitutes an adequate reflection of the intended population) goes decidedly too far. In addition, for the adequate use of the term *representative* it should also be possible to define the population concerned (in this case "popular rhetorical literature") unambiguously, in terms of both nature and extent. This, however, is not the case. Furthermore, it remains unclear according to precisely what ethical norms and criteria the researchers selected the passages concerned from the literature.

However all this may be, a cluster analysis of the judgments resulted in 11 "standards of (un)fair argumentation," ranging from "do not present your arguments intentionally, purposefully in a non-stringent manner" to "do not treat your discussion partner intentionally, purposefully as if he or she is a personal enemy."[6]

Similar commentary as for the study of Bowker and Trapp is possible for this study that was specifically set up with the objective of deriving concrete, applicable evaluation norms for argumentation. All strategies, for example, that for whatever reason have not been represented in the text fragments presented to the respondents can never become independent assessment criteria in the analysis. To avoid repetition, we will refrain from further commentary. The cardinal point that concerns us here is, of course, that although the starting point is formed by a theoretically based concept, the final norms obtained for the assessment of argumentative discussions are generated in an inductive manner with the aid of statistical data techniques. Exactly as was the case in the study of Bowker and Trapp, these norms are therefore very largely *ad hoc*.

[6]This last example reveals how problematic this selection is. Firstly, it is not clear why it is "unfair" to treat someone purposefully as a personal enemy. Secondly, this guideline is psychologizing due to the use of the term "purposefully."

2.4.3 *The Nature of the Questioning in the Integrity Study; the Ecological Validity*

If doubts may be entertained and criticism made about the empirical way in which Schreier, Groeben and Christmann extract the ethical standards for "fair" discussion behavior, this applies to an even greater degree to the series of experimental studies in which they investigate the structure of the fairness judgment. This objection applies in particular when the *ecological* validity of these studies is under scrutiny. We take as a typical example an experiment of Schreier and Groeben (1995) in which the structure of the "unfairness" judgment is investigated using a violation of their fairness standard 10 that relates to "the hindrance of participation" in the discussion by one of the discussion partners ("do not purposefully, intentionally treat others in such a way that their participation is hindered"). A phenomenon that may be expected to occur from a methodological point of view in this and similar kinds of experimental research in the context of "argumentational integrity" concerns the tendentious way in which the respondents' answers on the "fairness" of the discussion behavior of discussion partners to be judged are elicited.

The respondents were presented with 12 written excerpts of argumentative discussions on television in which they had to assess the severity of the rule violation. One of these scenarios was as follows (1995, p. 222):

> Methadone
>
> In a discussion on television, the advantages and disadvantages of giving methadone in cases of heroin addiction are discussed. Methadone is a substitute that mitigates the withdrawal symptoms of heroin addicts but is addictive itself. Hence methadone as a treatment in the strict sense is discussed controversially by medical specialists in the field. Participant B (a medical practitioner who has been treating heroin addicts with methadone for some time) argues that methadone would help addicts to quit taking heroin and for this reason a methadone treatment is to be recommended in any case. Participant A (a representative of Synanon, a group which advocates the medication-free treatment of heroin addicts) argues that the administration of methadone is nothing but a transfer of the addiction problem to another drug.
>
> A: I personally do not think that methadone treatment can solve the problem of heroin addiction because methadone itself is a drug – the heroin addicts will continue to suffer from some form of addiction. For this reason I think that methadone treatment should not be legalized. It makes more sense to me to look for other, medication-free types of treatment.
>
> B: You think we should not legalize the methadone treatment. Mister A, let me tell you – if a drug addict consults me and implores me to treat him with methadone and I am not able to give him this treatment, because it is not allowed – what do you think I will feel if I have to send this person away about whom I know that he will perhaps jump from the next skyscraper? I hope you can imagine how I will feel.

To determine the severity of the rule violation, after each of the 12 fragments the following statement was conveyed to the respondents:

> If someone impedes the participation of others in this way, that is in emotionalizing the controversial issue, this in my opinion impedes further argumentation.

The respondents could indicate their judgment on a scale of 1–5, ranging from "not at all" to "to a very great extent." The above question is undoubtedly a tendentious, leading question that puts the desired answer – meaning the answer desired by the researchers – in the mouths of the respondents. It is, of course, stated explicitly that one of the participants is standing in the way of, and impeding the participation in the discussion of, another – naturally an undesirable and objectionable situation – due to the fact that the person involved is dragging the issue on which opinions are divided into the emotional realm.

For many years it has been known from the methodological literature that respondents as a rule have an inclination to provide those answers that they assume a researcher wishes to hear. Such response behavior, known by such terms as "response bias," "set," "putting-his-best-feet-forward," and so on, corrupts the ecological validity of the study and consequently leads to pseudo-confirmation of the hypotheses. About how the respondents *in situ naturalis* would respond to such discussion behavior when they were not be addressed by a tendentious question on the bad nature of such behavior, nothing sensible can be said.

The response behavior challenged here, because it is so strongly induced by the specific leading questioning of the researchers, is *amplified* still further since at each fragment, in addition to the question stated above, the respondents have again to couch their opinion on the degree to which they consider that discussion participant B was himself or herself aware of his or her negative, discussion impeding behavior. For this, the following three alternatives were offered:

In my opinion:

1. Participant B deliberately wants to impede the participation of A by emotionalizing the controversial issue.
2. It occurs to participant B that in emotionalizing the controversial issue he might impede the participation of speaker A; he does, however, not think about this any further.
3. Participant B does not notice that in emotionalizing the controversial issue he impedes the participation of speaker A.

On the basis of the last assessment, the respondents finally had to make their "fairness" assessment known with the option of selecting from (only) two alternatives:

1. In that case I would consider B's way of arguing so bad that I would personally reproach him.
2. In that case I would not consider B's way of arguing particularly bad.

Yet again, *expressis verbis*, it is clearly suggested to the respondents that the behavior by discussion partner B is reproachable and poor, in short "unfair." The plainly negative qualification of such discussion-impeding behavior ("bad") leaves little room for doubt on how the researchers themselves view this behavior. Because of this methodologically dubious method, no unprejudiced ideas and opinions are heard from the respondents.

Applied to our experimental study, such a dubious procedure would imply that we should inform our respondents for each discussion fragment that is presented for their judgment that – for example – the use of a direct personal attack hinders the resolution of a difference of opinion since the discussion partner's freedom is impeded to bring forward a point of view or express doubt on the acceptability of a point of view, after which the respondents would be able to make their judgment on the unfairness of this fallacious attack on a scale in which the classes vary from – described only in negative terms – "totally *un*reasonable" to "not totally *un*reasonable."

To guarantee the ecological validity of our study (and the internal validity; both types of validity are of course not completely independent from each other), we should leave our respondents entirely uncertain as to the purpose of the study, we should not pronounce the nature of a critical discussion and we should not bring up the term *fallacy*. In the instruction to the respondents, we should only state that people might differ in their judgments of the fairness or unfairness of discussion contributions: What one person finds reasonable may sometimes not do for another. In addition, the 7-point scale on which the respondents can express their judgments of the reasonableness or unreasonableness of fallacious and non-fallacious discussion contributions does not consist of suggestive assessment classes that are elucidated verbally only in negative terms, but of classes that range from the negative pole "very unreasonable" to the positive "very reasonable." In brief, with an eye on ecological validity, we keep our respondents purposefully and intentionally "naïve." Neither from the instruction nor from the text fragments provided, nor from the specific way of questioning may the participants in any way whatsoever infer what the research is about – let alone that we implicitly or explicitly steer the respondents in the direction we desire.

2.4.4 Issues Concerning the Internal Validity: The Loadedness of the Topic

Another questionable (internal) validity aspect in the experimental study of Schreier, Groeben and Christmann concerns the lack of what could be called a "control group." The 12 fragments the respondents are presented with contain invariable (one or more) violations of the ethical standard 10 in which an issue is dragged into the emotional realm by one of the discussion partners; each time the "fairness judgment" is requested of the respondents, but fragments in which standard 10 is not actually violated are lacking. Without such a *base line*, however, the study results concerning "fairness" cannot be interpreted unambiguously: Assuming that the respondents indeed deem such maneuvers in the emotional realm "unfair," this does not exclude the possibility that the respondents would find discussion behavior in which this standard is not violated just as "unfair" or even "unfair" to a larger extent.

How exactly this should been done in this experimental study in view of Schreier, Groeben and Christmann's specific manner of questioning with the fragments in

which the ethical standard is violated, is unclear. In order to evade this methodological pitfall, in our investigations we shall present discussion fragments in which a pragma-dialectical rule is broken or not broken by one of the discussion partners. Such a contrast makes it possible to interpret the judgments of reasonableness in a more adequate manner.

Another problematic aspect in the empirical research under discussion here into the structure of the "fairness" judgment concerns the selection of discussion fragments: They are (transcribed) versions of debates on television. The topics raised in such debates are without exception *loaded*: The respondents already have beforehand an expressed attitude, position or opinion on such controversial issues as the provision of methadone to drug addicts. From the literature relating to psychology it has for many years been known what the "distorting" influence is of such attitudes: Whoever is, for example, utterly against the provision of methadone will be inclined to disqualify all opinions, actions and behaviors that clash with and are inconsistent with this vision, while opinions that tally with the vision are, from an argumentative viewpoint, overvalued, even if they are probably reproachable from an argumentation theoretical viewpoint or from an ethical viewpoint.

Apart from the previously formulated commentary on the dubious, tendentious questioning, this loadedness of topics constitutes an alternative explanation *pur sang*: The respondents judge B's discussion behavior as "unfair" not so much on the basis of the fact that through his discussion contributions he is dragging the discussion into the emotional realm, but because he supports a view that is in their eyes simply noxious. Such a type of tension in subjects that are to be discussed makes it impossible from a methodological viewpoint to unravel the effect of various variables on the judgment, unless this loadedness – or, in the extension of this: Attitudes with regard to the discussion topic – is included in the study as a separate (independent) variable or is kept strictly under control. In the study performed by us we guarded against introducing loaded topics.

2.5 Alternative Methods

The approach we have chosen is an experimental approach that, as has been explained above, differs in a number of essential aspects fundamentally from the approach of Bowker and Trapp and also from that of Schreier, Groeben and Christmann. In the selection and the design of the experimental text fragments that are presented to the respondents for judgment we also set to work in a radically different way to the approach that Schreier, Groeben and Christmann followed. While they elect to confront their respondents with real, "natural" discussion fragments ("natural" in the sense that the written, transcribed versions were taken from (parts of) verbal discussions that were broadcast on television), we present our respondents with – purposeful – discussion fragments constructed by ourselves, in which, based on methodological considerations, we keep a number of variables under control, such as the form of the dialogue, the length, the syntactic construction, the structure, and last but not least, the loadedness of the topic under discussion. Precisely

which variables are kept under control depends, for example, on the specific nature of the fallacy under investigation and the alternative explanations associated with this. Perhaps needless to say, we have strived in the construction of these fragments to harm the "naturalness" as little as possible – whether we have succeeded in this anyone can check for themselves using the concrete examples of discussion fragments to be presented in the following chapters.

The frequently cited objections against constructed fragments as used in our study may be expressed in a nutshell by the climactic trio; artificial, therefore unnatural, therefore irrelevant. Behind these objections there lies, however, an obstinate and widespread misunderstanding of the nature, the possibilities and boundaries of an experiment, namely the notion that an experimental situation must constitute a material reflection of a situation that is called "daily life in reality." Every trial situation, every experiment is designed, manufactured in the sense of artificial. We are, of course, dealing with the study of human actions and behaviors under principally repeatable circumstances. But in this artificiality there is no argument *per se* against the relevance, validity or usefulness of knowledge gained in such an artificial situation. By way of illustration, take the following example. A pupil at the back of the class has the greatest difficulty deciphering the letters and numbers on the blackboard – he is referred to an eye specialist. Must this eye specialist then drum up the teacher and pupils, put up a blackboard and write letters and numbers on it, in short must the eye specialist from a material point of view create a situation analogous to the "real life" one in order to be able to make relevant statements on the sight of the pupil? Of course this is not necessary: He creates an artificial situation that constitutes not in a material, but in a formal sense a reflection of the general daily situation, and measures using artificial means (eye charts) the resolving power of the eye, after which relevant and useable advice follows.

The whole question concerning the "unnaturalness" of constructed discussion fragments, an issue that ultimately has repercussions for ecological validity, could probably be circumvented through the use of corpus research. The conventional validity of the pragma-dialectical discussion rules could in this type of study be illustrated by using existing, non self-constructed text and discussion fragments from newspapers, reviews, columns, polemics and the like. Although the examples selected in corpus research often appear to have inspired major conviction amongst the general public, we have nonetheless a number of reasons for not adopting such an approach. Without striving for completeness, we will cite a few. Firstly, further demarcation and definition of the corpus investigated are often problematic so that generalizations are hazardous. Secondly, attached to corpus research is the danger of a confirmational research strategy ("Seek, and ye shall find"). Thirdly – associated with this – it is unclear what specific requirements the "data," the examples, would have to meet in order, for example, to be able to reject the conventional soundness of a pragma-dialectical discussion rule. Fourthly, the topics discussed in the columns, the readers' letters and suchlike are virtually without exception charged – this makes it exceptionally difficult, as already argued, to extract from these independent, unprejudiced norms for the soundness or unsoundness of argumentation. Fifthly, the notion "conventional validity of the pragma-dialectical discussion rules"

(i.e. the discussion rules concerned are also in a certain sense acceptable to the "modal" discussant) implies a *quantitative* claim (i.e. a generic claim that is applicable to a class of individuals) that would also have to be supported by quantitative means, not with qualitative methods solely using some examples, "cases." How, of course, would a couple of examples ever be able to function as "proof" for a generic, more or less universal quantitative claim? In view of the specific nature of the claim that is associated with the term "conventional validity," corpus research leads only to "illustration," but not to the "demonstration" that is so desired. In the following chapters, a fair number of fallacies are discussed. We shall explain and illustrate the meaning and scope of the fallacies concerned with the aid of cases, examples from newspapers, columns, magazines, television programs, and so on, with recognition of the fact that corpus research can be assigned a hypothesis-forming, but not hypothesis-testing status.

Just as would be the case in corpus research, in our series of experiments the conventional validity of the pragma-dialectical rules is investigated not in a direct, but in an indirect sense. Due to the fact that discussion fragments that contain a fallacy are found to be unreasonable by normal judges, and fragments that do not contain any fallacies are deemed reasonable, we deduce that in the judgment of the fairness of argumentation the respondents concerned appeal, whether implicitly or explicitly, to norms that are compatible, or at least not contradictory, to rules formulated in the pragma-dialectical argumentation theory.

But why would one not directly ask the respondents whether or not they are in agreement with the rules that apply in the pragma-dialectical argumentation theory? There are three cardinal objections against employing such a direct approach. Firstly, there is very much the question of whether respondents in their answer to the questions posed (for example: "I am of the opinion that in a discussion that is aimed at resolving a difference of opinion everyone must have the principle, inalienable right to bring forward any standpoint or express doubt on the acceptability of a point of view") are able to refrain from social desirability tendencies. A second difficulty is created by the fact that respondents may well be in agreement with the formulated rules *in abstracto*, but that the opinions will diverge greatly as soon as the judgment of concrete, specific cases is made. Anyone may be in agreement *in abstracto* with the statement that everyone in a discussion has the inalienable right to bring forward any point of view, but will the same person stick to their opinion when, for example, repulsive points of view are defended or when a protagonist pleads for the decriminalization of pedophilia, while this same person has already been found guilty a number of times of abject behavior towards young children? And, last but not least, would a direct questioning of the pragma-dialectical rules be excluded outright without providing an extensive, fairly technical argumentation theoretical explanation of the crucial, normative term *critical discussion*, the resolution of a difference of opinion, the procedural-functionalistic nature of the pragma-dialectical discussion rules and the theoretical-technical concepts applied in these rules. Take rule 8: "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 means of appropriate argument schemes that are

applied correctly." Without a detailed explanation of, for example, the term *argument scheme* with the aid of examples, the types of schemes that are distinguished in the pragma-dialectical approach and an explanation of a correct and incorrect application of the scheme concerned, it is pointless to request respondents to make a well-considered judgment about the rule concerned. It is therefore not possible to investigate the conventional validity in a direct manner. The indirect way – investigating the judgments on rule violation – in our opinion does say a great deal about the conventional validity of the pragma-dialectical discussion rules.

In the construction of the argumentative dialogues in our research material, we have systematically commenced from the pragma-dialectical rules and the possible violations of them. The items presented to the respondents would have certainly appeared differently had we started from the traditional description of fallacies as can be found in the many handbooks. An example should clarify this. The *ad hominem* fallacy is often described in the handbooks as a personal attack on the opposing party. This description is, however, lacking from a pragma-dialectical perspective. A personal attack in a critical discussion only constitutes a fallacy if the freedom rule is violated: The one party makes it impossible for the other party to bring forward his or her point of view or doubt in the confrontation stage. If one party in the discussion adopts a point of view in which he or she attacks their opponent personally, this does not automatically result in a fallacy.

In the construction of dialogues, we take account of the characteristics of the specific discussion stage in which the rule violation is committed. Thus it must, for example, be clear that violations of the freedom rule take place in the confrontation stage and that violations of the obligation-to-defend rule take place in the opening stage. In keeping variables under control, we take account of the analytical aspects that play a part in a pragma-dialectical reconstruction: The type of difference of opinion, the types of points of view and the types of arguments, the discussion stages, the argumentation structure, and so forth. Finally, there are as part of the violations of the pragma-dialectical rules still some fallacies that are "new": Fallacies that are "generated" by these rules and are not distinguished in other approaches. If our respondents reject these "new" violations, then in any event the claim can no longer be sustained that our results are just as applicable to other fallacy approaches.

Partly using the above discussion of existing empirical research into the norms that ordinary arguers apply in the judgment of the validity of argumentation, we have outlined a number of considerations that have led to our chosen experimental design. How this design was developed *in concreto* and given substance will be covered in an exemplary manner in Chapter 3 through the aid of an experiment in which (variants of) the *argumentum ad hominem* is the focus.

Chapter 3
Ad Hominem Fallacies: An Exemplary Study

In daily life, anything can go wrong in discussions: Some discussions hardly get off the ground, others progress with the utmost difficulty and yet others are derailed even before an argument is put forward. During a now infamous meeting of the European Council of Ministers, the German Social Democrat Member of European Parliament (MEP) Martin Schulz suggested in a response to a speech by the Italian Prime Minister Silvio Berlusconi that the slow progress made by Italy on a number of pan-European judicial measures was indicative of the "virus of conflict of interests" spreading beyond the borders of Italy. Berlusconi replied: "Mr. Schulz, I know a producer in Italy who is making a film about Nazi concentration camps. I will suggest you for the role of a "kapo." You would be perfect!" (European Parliament, sitting of 2 July 2003).

According to the many critical reactions in the press, most commentators and columnists found this discussion far from a paragon of "reasonableness."[1] In the pragma-dialectical argumentation theory, discussion contributions such as Berlusconi's as quoted above are deemed unreasonable, not due to their notoriously impolite nature, but because they frustrate the resolution of a difference of opinion.

A difference of opinion arises since one party (the protagonist) brings forward a standpoint and the other party (the antagonist) casts this standpoint into doubt. The difference of opinion is resolved when the antagonist relinquishes his or her doubt or the protagonist withdraws his or her standpoint. In each stage of an argumentative discussion, discussion moves may be enacted that hinder the resolution of a difference of opinion and these must therefore be branded as fallacies.

The objective of a critical discussion aimed at resolving a difference of opinion on the merits is that protagonist and antagonist explore together whether a standpoint stands up to criticism. The antagonist must therefore be given the maximum possible opportunity to criticize the standpoint and the argumentation that the pro-

[1] Schulz himself proves to be quite capable of making this kind of unreasonable remarks himself. On May 23rd, during a visit of the Dutch Prime Minister Jan-Peter Balkenende to the European Parliament, the Dutch MEP Erik Meijer defended the Prime Minister by stating that more countries would have voted no to the constitution, had they been allowed to vote. Schulz immediately accused Meijer of practicing National Socialism: "Du verkaufst reintheoretischen Quatsch. Ist das holländischer Nationalsozialismus?" (You are uttering theoretic nonsense. Is that Dutch National Socialism?).

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tagonist brings forward. A requirement for this is that the positions of both parties are clear and that the parties are able to express these positions without impediment. Only then, of course, is it possible to systematically attempt to resolve the difference. Ideally, therefore, the difference is made explicit in the *confrontation stage* that precedes the resolution process in a critical discussion. The first pragma-dialectical rule provides a norm for the discussion behavior of discussants in this confrontation stage and states: "Discussants may not prevent each other from advancing standpoints or from calling standpoints into question." (Van Eemeren & Grootendorst, 2004, p. 190)

The rule for the confrontation stage, which in a characterizing and classifying way is called the *freedom rule*, means *in concreto* that no limitation whatsoever is imposed on the standpoints that may be brought forward, or equally on the persons that bring forward a standpoint or cast doubt on a standpoint. If this rule is violated, then in the first case restrictions concerning content are imposed, in the second case the personal freedom of the opponent is impaired. Impairing the personal freedom of the opponent in an attempt to disenfranchise them as a serious discussion partner may be done by discrediting their expertise, impartiality or credibility. Such types of fallacious personal attacks that are not aimed at the merits of the content of the standpoint or the doubt of the opponent but at their person are denoted by the traditional Latin title *argumentum ad hominem.*

In practice, personal attacks are made by and large no so much directly, but via a sophisticated circuitous route. Instead of being directly aimed at the opponent, such underhand maneuvers are more often intended for a different audience to be persuaded; in this sense, they are typical rhetorical discussion tricks. All attempts to nip a discussion in the bud by means of such destructive personal attacks constitute violations of the freedom rule and must from a pragma-dialectical perspective be regarded as fallacies.

3.1 Variants of the *Argumentum Ad Hominem*

As we discussed in Chapter 1, Aristotle's list of 13 fallacies was for a long time the starting point in the study of fallacies and this list has over the years been significantly extended by others. The most significant addition is that of *ad* fallacies, a category of argumentative moves first noted by the seventeenth-century philosopher John Locke (Finocchiaro, 1974; Hamblin, 1970). In addition to the *argumentum ad hominem* ("an argument aimed against the person"), undoubtedly the most well known, Locke introduced a further three types of *ad* arguments: *Ad verecundiam*, *ad ignorantiam* and *ad judicium*. As a result, Locke is known as the "inventor" of the *ad* fallacies. His additions have been greatly imitated: More than 20 different types of *ad* fallacies have emerged in the textbooks of the twentieth century (Hamblin, 1970, p. 41).

In the modern literature, the *argumentum ad hominem, ad verecundiam* and *ad ignorantiam* are generally interpreted as fallacies, but it is not entirely clear – as said before – whether Locke held the same conclusion. Nowhere does he explicitly indicate in his *An Essay Concerning Human Understanding* (1690), in which he

discusses the *ad* arguments concerned, that he regards these argumentative moves as fallacies – he certainly does not consider the *ad judicium* as a fallacy,[2] while he deemed *ad hominem* argumentation (at least in his interpretation[3]) as indispensable for successful argumentation. However this may be, today the term *argumentum ad hominem* is mainly used in a pejorative way.[4]

In a number of introductory logic textbooks that appeared between 1950 and 1972 (Copi, 1953; Kahane, 1969, 1971; Rescher, 1964), three different ways in which a person may be attacked fallaciously are distinguished. Correspondingly, three different variants of the *argumentum ad hominem* are identified: (1) A direct attack, also called the *abusive* variant, (2) an indirect attack, also classified as the *circumstantial* variant, and (3) a "you too" (or *tu quoque)* variant. The *abusive* variant amounts to a genuine, front-on personal attack in which one party casts doubt on the integrity, reliability, expertise, intelligence or good faith of the other party so that this party loses his or her credibility.[5]

In an indirect attack (*circumstantial* variant), an attempt is made to undermine the credibility of an opponent by advancing special circumstances relating to their person, which amounts to the suggestion that their actions are due only to self-interest and that their arguments are in fact nothing other than rationalizations. Copi elucidates this by means of the following example:

> If a manufacturer's arguments in favor of tariff protection were rejected on the grounds that any manufacturer would naturally be expected to favor a protective tariff, the critic would be committing the fallacy of *argumentum ad hominem* (circumstantial) (1982, p. 101).

The *tu quoque* variant of the *argumentum ad hominem* is aimed at bringing to light a conflict in the positions that the opponent has taken on various occasions. The conflict may arise from the opponent now taking a standpoint different from one he took in the past or that the standpoint that he professes to hold with his mouth is not

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[2] Locke says of this argument: "The fourth is the use of evidence that is derived from the fundamentals of knowledge or probability (. . .). Of the four, (. . .) only this is a contribution to the increasing of our knowledge" (*Essay IV*: iii).

[3] It should be noted here that Locke uses the term *ad hominem* in a particular, specific way and that his concept of this type of argumentative move differs greatly from the modern view. Locke calls argumentation *ad hominem* when it is based on the concessions that are made by the opponent. In this view every argumentation is *ad hominem* – and it is not in itself unreasonable.

[4] When exactly the term gained its negative connotation and from whom is difficult to ascertain (see van Eemeren & Grootendorst, 1993).

[5] Aside from this, in the standard approach to fallacies and in informal logic there is not really any general agreement on the use of terminology. "Circumstantial" sometimes stands for accusations of inconsistency in general: "Given certain alleged facts about one's opponent's background, behavior, prior commitments, or other circumstances, it is inconsistent for that opponent to accept (or reject) a particular point of view" (Brinton, 1995, p. 214). The *tu quoque* variant seems to be restricted by some to responses to criticism or behavior ("you also do it yourself") and does not belong to accusations of inconsistency. What is termed "circumstantial" by Copi and in the pragma-dialectical approach is called "poisoning the well" by others. This confusion in terminology is symptomatic of the chaos noted by Hamblin that reigns in the standard approach to the fallacies.

in accordance with his acts. This latter is, as Copi notes, the case when, for example, someone is guilty of something for which he criticizes his opponent:

> The classical example of this fallacy is the reply of the hunter when accused of barbarism in sacrificing unoffending animals for amusement. The reply is to ask the critic, "Why do you *feed* on the flesh of harmless cattle?" (1982, p. 100)

Although all three of the variants of the *argumentum ad hominem* are aimed at the person of the opponent and have the purpose of undermining his or her credibility, there is a significant difference in the way in which this goal is sought. In fact, the difference between the three variants is so fundamental that there would be something to be said for regarding them as separate categories of fallacies and not as three different variants of the same fallacy.[6]

The brief explanation above should be enough to see that the three variants of the *argumentum ad hominem* – or if one wishes, the three distinct, separate types of personal attack – each constitute a transgression of the same fundamental norm for argumentative discussions that are aimed at resolving a difference of opinion: All three of the personal attacks amount to one discussion party denying the other party the right of speech and thus the freedom rule that applies in the confrontation stage of a critical discussion is violated.

3.2 *Ad hominem* Attacks: Fallacies or Not?

In the introductory textbooks on logic of the standard approach, *ad hominem* fallacies are without exception treated as relevance fallacies (see Copi, 1982). Since *ad hominem* attacks do not of course constitute any logical justification (or weakening) for the standpoint brought forward, they are regarded as irrelevant and therefore fallacious. In the more recent past, however, some argumentation theorists, including Govier (1988) and Walton (1998a), combat this popular view that *ad hominem* attacks must always, regardless of the circumstances, be rejected as fallacies. Both researchers have, each in there own way, made attempts to specify specific, exceptional types of discussion contexts in which, according to them, a personal attack must be regarded as a correct, non-fallacious discussion move.[7]

Govier's correct use of the *argumentum ad hominem* concerns, for example, cases in which the speaker attempts via an attack aimed at the person in question to undermine the credibility of their eyewitness report or in which the speaker attempts

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[6] There are indeed authors, including Kahane (1971) and Carney and Scheer (1964), who appear to support this idea in practice; these authors treat the *tu quoque* variant, for example, as a separate fallacy.

[7] In this respect, their approach is, at first sight, similar to the pragma-dialectical one in distinguishing between sound and fallacious "strategic maneuvering" depending on the context of the specific "argumentative activity type" in which the argumentative moves concerned are made, but when considered more carefully the pragma-dialectical approach is fundamentally different (see van Eemeren & Houtlosser, 2007).

to discredit the expertise of an expert by furnishing what she calls "just, truthful and relevant information" about the person in question. According to Govier, in the following example a personal attack is justified since the relevant fact is brought forward that Berthell's views on the effects of forms of low-level radiation are disputed by other experts in the field:

a. Berthell is a figure whose findings have been disputed by other people in her field. So,
b. We cannot simply accept Berthell as an expert in this field. Thus,
c. Claims about the effects of low-level radiation are not to be accepted solely on Berthell's authority (1988, p. 111).

If the question of whether Berthell is or is not an authority in the field of radiation is vital to the difference of opinion, then there is from a pragma-dialectical point of view absolutely no question of a fallacious personal attack – but the reason for this is not, as Govier believes, that it constitutes a special and exceptional case. Similar commentary in the same vein also applies to discussions in which the difference of opinion turns on the issue of whether a witness is or is not reliable: In such cases, "attacks" aimed at the person do not as a whole constitute any violation of the rule for the confrontation stage. This commentary or this attack aimed at a person must in such cases not be located in the confrontation, but in the argumentation stage of a critical discussion in which the antagonist deserves the principal right to ask critical questions of argumentation that the protagonist brings forward in defense of his or her standpoint. In such cases, the protagonist brings forwards authority argumentation and due to the nature of the subject the antagonist is entitled to ask critical questions on the expertise or reliability of the authority.[8]

Walton regards *tu quoque* attacks as legitimate and relevant discussion moves, at least in specific discussion contexts such as a quarrel. But quarrels may only with difficulty be construed as a critical discussion – and it is even then meaningless to brand such moves as fallacies: Since such discussion contexts as a quarrel fall generally outside the scope of the rules for critical discussion, there is also no question of an *argumentum ad hominem* in the pragma-dialectical meaning of the term. This does not mean that it would not be possible to judge the relevance of such moves within some sort of theoretical-normative context, with the aid of an ethical system for example. Starting from such non-pragma-dialectical criteria, these moves could undoubtedly be assessed as relevant or irrelevant, and they could possibly even be rejected as reprehensible moves. Up to the present day, however, the development and justification of such criteria are still in their infancy and in our view it would at any rate be unwise to qualify such reprehensible moves as fallacies. In any case,

[8] Govier's approach is virtually in accordance with the tentative analysis of Woods and Walton (1989). They suppose that there is a fixed relationship between authority argumentation that they call *ad verecundiam* and the *ad hominem*. As a general rule, they state: "The correct rejection of an argument for its having committed the fallacy of *ad verecundiam* involves the non-fallacious use of an *ad hominem*" (1989, p. 71).

according to Walton, the critical discussion is "clearly a major context of dialogue to use as a normative model in evaluating arguments as fallacious or not" (1992, p. 133).

Brinton (1995) views the *ad hominem* fallacies from a rhetorical perspective. Just as Govier and Walton, he makes a distinction between a reasonable *ad hominem* and a fallacious *ad hominem*. A reasonable *ad hominem* in Brinton's view does not relate directly to the content of the claim defended by the opposing party, but to the defense by the opposing party. This means that a reasonable *ad hominem* is never a justification of the claim that the standpoint under discussion is unacceptable, but gives a qualification of the person who defends the standpoint. A reasonable *argumentum ad hominem* must in addition offer proper support: The argument presented must be true and also offer sufficient support for the *ad hominem* claim. The following *argumentum ad hominem* is, according to Brinton, not sound since the argument does not offer sufficient support for the claim:

> Candidate Jones has no right to moralize about the family; he was once seen arguing with his wife.

In the following example, the argument *does* constitute sufficient support for the claim and must therefore be regarded as a reasonable *argumentum ad hominem*:

> Candidate Jones has no right to moralize about the family, since he cheats on his wife.

According to Brinton, the opposing party (Jones) loses the ethos that he requires to defend his standpoint concerning family morals since he plays away.

In the approaches outlined here of the *argumentum ad hominem*, a formal concept of the *ad hominem* fallacy is assumed. Discussion moves are considered in which – in whatever manner it may be – the person of the speaker is attacked. It is subsequently determined in an *ad hoc* way whether this creates reasonable or unreasonable discussion moves.[9] In the pragma-dialectical approach, a functional-procedural approach is the starting point: The stage in which the discussion move arises and whether one of the discussion rules is transgressed are the determining factors in establishing fallaciousness.

This brief conceptual reconnaissance yields two significant clues for the item construction required for our research. First of all, all dialogue fragments must be located in the confrontation stage. Any suggestion must be avoided that the *ad hominem* might also be viewed as a critical question resulting from the use of an authority argument. This is, of course, something that takes place in the argumentation stage. Each *argumentum ad hominem* designed by us must be reconstructed as a response to a standpoint brought forward (in the confrontation stage) and not as a response to an attempted defense by means of an authority argument (in the argumentation stage).

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[9] It is confusing that in most of these approaches the term *ad hominem* is not only used for the fallacy but also for the reasonable form. It is therefore necessary to continually refer to the "reasonable *ad hominem*" and the "unreasonable *ad hominem.*" We prefer to use "personal attack" as a neutral term and "*ad hominem*" for every fallacious personal attack.

Secondly, it must be clear that the unreasonable discussion moves that we intend as instances of *ad hominem* fallacies are actually also violations of the freedom rule. This is an important condition since not every personal attack that is made in the confrontation stage is always also a violation of the freedom rule. Thus a personal attack that is brought forward as a standpoint does not constitute a violation of the freedom rule.

3.3 Organization of the Study

3.3.1 Outline of the Test

For the experiment, 48 discussion fragments were constructed: Short dialogue fragments between two discussants (called A and B), in 36 of which the discussion rule for the confrontation stage is violated by one of the discussion partners (each time by B: the antagonist); in 12 of these by a direct attack (the *abusive* variant of the *argumentum ad hominem*), in 12 by an indirect attack (the *circumstantial* variant of the *argumentum ad hominem*) and in 12 by the *tu quoque* variant of the *argumentum ad hominem*. For the purposes of constructing a *base line* that would function as a reference point for comparisons and contrasts between fallacious and non-fallacious moves, in the 12 other fragments no discussion rule is violated and the argumentation is therefore sound. The respondents were each time asked the question of how reasonable or unreasonable they found the discussion contribution of antagonist B. They had to mark their judgments on a 7-point scale in which the seven scale points were verbally marked, ranging from "very unreasonable" (= 1) to "very reasonable" (= 7).[10] Exactly 1/3 of the fragments were part of a scientific discussion, 1/3 of a political debate and 1/3 of a domestic exchange of views.

[10] Considered from a pragma-dialectical perspective, a speech act that is brought forward in a critical discussion constitutes either a contribution to the resolution of the difference of opinion (as a consequence of which the speech act concerned is deemed by definition reasonable), or no contribution in the sense that it makes the resolving the difference of opinion more difficult or blocks it (as a consequence of which the speech act concerned is deemed by definition unreasonable). From this theoretical perspective, "reasonableness" is therefore an absolute, binary term. From an empirical perspective, however, it is meaningless to present respondents with a binary choice ("Is according to you the discussion contribution reasonable or unreasonable?") since such a double-option question unavoidably leads to the introduction of a huge amount of "random error," or noise – assuming that the respondents start out from a gradual, non-binary concept of the term "reasonableness." And this is certainly substantially the case: Even a five-point Likert-type scale, as is apparent from a pilot, contains in the view of the respondents too few classes to allow the expression of their gradual, differentiated concepts of "reasonableness." Therefore, in all our research reported in this volume, a gradual scale consisting of 7 classes was chosen. The implication of this method of questioning is that the centrally posed question of our research into the conventional validity of the pragma-dialectical discussion rules can be answered not in binary, absolute terms, but in gradual terms.

3.3.2 Respondents

A total of 92 students – classically – took part in the pencil-and-paper test: 50 students from the fourth year of secondary school (HAVO-4 in the Dutch education system), of whom the majority were 16 years of age, and 42 from the fifth year of secondary school (VWO in the Dutch system), most of whom were 17 years old. The test was taken during normal lesson time. By far the majority of the respondents worked in a concentrated and serious fashion. Most appeared to be enthusiastic about the test, as was apparent during the post-experimental session in which the study leader unveiled the precise purpose of the research. The lion's share of the students had assessed the 48 dialogues for reasonableness within 20 minutes; a few slower respondents required about 40 minutes. None of the 92 respondents had ever enjoyed specific argumentation teachings; checks afterward revealed that they had also never heard of an *argumentum ad hominem* nor of the term *fallacy*. In short, these respondents may be regarded as "naive" – we qualify them as "ordinary arguers."[11]

3.3.3 Hypotheses: Independent Variables

A total of four hypotheses were tested; the status of these hypotheses differed markedly. The first hypothesis in which personal attacks are compared and contrasted with sound argumentation was theoretically motivated by pragma-dialectical insights and – assuming that this hypothesis can be confirmed – is indicative of the conventional validity of the rule for the confrontation stage. In view of our objective in the research project, this is our most important hypothesis.

The second hypothesis concerns the reasonableness relationships between the three types of *ad hominem* attacks. Refutation of this hypothesis would not have any consequences for the conventional soundness of the pragma-dialectical freedom rule.

The third hypothesis, in which the reasonableness or unreasonableness of the three personal attacks within the three discussion contexts are compared with each other, is purely methodological in nature and is intended to exclude alternative

[11] The post-experimental session included investigation of whether the respondents had worked in a serious and concentrated fashion, whether they had found out about the purpose of the study, what they found wrong about fallacies in general and the specific fallacies under investigation in particular, and so on. The post-experimental session took place standardly in the way reported here; the purpose of this was to examine whether and to what extent the participating respondents might be characterized as naive so that possible alternative explanations of the study results could be excluded. Since 2002, argumentation learning has been a compulsory part of the Dutch language subject at upper secondary level (VWO/HAVO), so research into judgments on fallacies as in the research in question is at the present time no longer possible, at least not with strictly comparable groups of respondents in upper secondary (high) school (4 and 5 VWO/HAVO): Today these students can certainly no longer be regarded as naive.

explanations of the research results in terms of politeness. Refutation of this hypothesis, although catastrophic for internal validity, would have, just as refutation of the second hypothesis, no repercussions for the conventional validity of the freedom rule.

The fourth and final hypothesis is, unlike the first three, not strictly hypothesis-testing in nature, but is much more explorative. In this hypothesis, which is motivated by the research results of Bowker and Trapp, the judgments on fallacies and sound argumentation of male and female ordinary arguers are compared with each other. Confirmation or rejection of this explorative hypothesis would not affect the conventional validity of the freedom rule.

Our most important hypothesis concerns the manipulation of speech acts with and without an *ad hominem* violation of the freedom rule. We presume that "naive" ordinary arguers are by and large sensitive to violations of this rule, and this can also be derived from the often used adage in daily discussions: "Play the ball and not the man." We may assume that ordinary arguers, at least at an intuitive and pre-theoretical level, know and are more or less aware of the fact that a personal attack is aimed at eliminating the opponent as a serious discussion partner, with the result that the resolution of a difference of opinion, if not blocked, is certainly severely hindered. It may therefore be expected that ordinary arguers would find *ad hominem* attacks less reasonable than speech acts in which such fallacies do not arise:

Hypothesis 1: Ordinary arguers deem speech acts that contain an *ad hominem* violation of the freedom rule as less reasonable than speech acts in which the freedom rule is not violated.

The second independent variable (that is nested in the first level of the first-stated independent variable: The presence of a speech act in which a fallacy is commited) concerns the type of *ad hominem* used by the antagonist in his or her response. All three of the variants that are traditionally distinguished – the direct attack, the indirect attack and the *tu quoque* variant – are also investigated in this experiment for their reasonableness or unreasonableness. The use of an *argumentum ad hominem* implies as a rule an open transgression of the politeness principle that figures in daily discussions (Brown & Levinson, 1978; Leech, 1983; van Rees, 1992). There are, however, clear differences in "politeness value" between the three types of *ad hominem* attacks. In some discussion contexts, the *tu quoque* variant has at least the appearance of reasonableness; it may of course be expected of serious discussion partners that they show a certain degree of consistency between their words (at the present time and from the past) and their deeds. The *tu quoque* is, depending on its formulation, the least impolite fallacy of the three investigated here.

In contrast, a direct attack (not for nothing also known by the name *abusive* variant) will generally speaking be perceived as a gross insult; the rules applying to respectable behavior in discussions are openly violated without any beating about the bush, which leads to severe loss of face of the party involved and rapidly creates an atmosphere of animosity. On the basis of, amongst other things, these conversation-analytical insights, we advance the following hypothesis:

Hypothesis 2: Ordinary arguers will regard the *abusive* variant as the most unreasonable discussion move, the *circumstantial* variant shall occupy the center position, and the *tu quoque* attack shall be judged the least unreasonable.[12]

The speech acts that do or do not contain an *ad hominem* fallacy are not presented solely in isolation, but in the context of dialogue fragments that form part of an argumentative discussion.[13] The first reason to present these speech acts in a specific discussion context is that – as argued above – judgments on the reasonableness of discussion moves are not under normal circumstances formed *in abstracto*. The second reason – and this is what it now hinges on – is that the (quantitative) results obtained must offer us the possibility of discriminating between the effects of rule violations and the effects of impoliteness. It is, of course, certainly possible that respondents deem *ad hominem* fallacies unreasonable not so much because they are unsound forms of argumentation, as because with this type of personal attack the politeness rules that apply to discussions are transgressed. As argued, a direct attack ("What do you know about that for God's sake? You are far too stupid for that!") for example, generally leads to severe loss of face for the party being spoken to and rapidly creates a discussion atmosphere in which there are hostility and overtones. And what is stated here for the *ad hominem* fallacy applies in fact to most fallacies that fall under the scope of the freedom rule (the *ad hominem*, the *ad baculum*, the *ad misericordiam*, and maybe even the fallacy of declaring a standpoint taboo or sacrosanct). In the experiment described it is attempted in various ways here to exclude this alternative explanation of the research results in terms of (exclusively or primarily) politeness.

And from this we have the following. The discussion fragments that are presented to the respondents for judgment are, as previously stated, presented each time in a concrete, well-described discussion context. The discussions took place in the context of a political debate, at the breakfast table or in a scientific context – as was also explicitly communicated to the respondents in the instruction. It was additionally remarked in the instruction to the respondents (and also explained by means of concrete examples) that these three types of discussions differ in terms of objective and formal character. The discussion at the breakfast table was painted as a discussion

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[12] The way in which hypothesis 2 has been formulated strongly invokes the suggestion that it should be possible to model the judgments of the respondents in a uni-causal manner in terms of politeness – but we rightly oppose such a thing. In this chapter, we will in various ways try to demonstrate that the reasonableness judgments are based primarily on rational-critical grounds, and to a much lesser extent on considerations concerning politeness.

[13] As we revealed in Chapter 2, in their research Bowker and Trapp present the fragments in isolation, which leads to methodological interpretation problems. In all the research presented in this volume, the discussion fragments are presented in a well-defined context: Sometimes the explanation of the contexts is extremely extensive and the description of this occupies a full page (as is the case in all the research in the context of the freedom rule), sometimes a brief description of the location/situation in which the discussion takes place and of the people that are participating in the discussion suffices (for example: "Man and woman in a vehicle" in the investigation of the argument scheme rule).

	Formal content	Critical content
Discussion context		
Domestic discussion	–	–
Political debate	+	–
Scientific discussion	+	+

Fig. 3.1 Three types of discussions, varying in two dimensions

that took place in a fairly informal situation; the other two were characterized as relatively formal discussion contexts (see Fig. 3.1). In addition, the critical content of the three types of discussions was manipulated in the instruction: Discussions at the breakfast table were described as discussions in which often practical matters were raised, matters that often had to be dealt with in the short term, the political debate was typified as a discussion in which there were often overtones of rhetorical motives and in which the parties not seldom strive to persuade each other no matter what, while the scientific debate was characterized as an example of a discussion in which it is not so much important to be put in the right, but to be right (according to some scientific philosophers and methodologists, a scientific discussion must even be seen as the specimen of a critical discussion; cf. de Groot, 1984).

If in their assessment of the reasonableness or unreasonableness of discussion contributions the respondents are primarily sensitive to the "politeness value" of an argumentative contribution, we may expect that they (1) would find fallacies in the domestic domain more reasonable than the same type of fallacy in the other two domains and that they (2) would make no further distinction in reasonableness or unreasonableness between fallacies in the political debate or in the scientific discussion. If, however, the respondents in their judgment of the reasonableness or unreasonableness of discussion contributions are primarily alert to the "argumentative value" (the soundness character) of an argumentative contribution, then one would expect that they (1) would consider fallacies in a scientific discussion less reasonable than fallacies in the other two domains and that they (2) would make no further distinction in reasonableness or unreasonableness between fallacies in a domestic or a political discussion context.

The above distinctions between the three types of contexts are not intended so much as an ontological, objective description of "reality," although we suppose that – in the Netherlands at least – there is some correspondence between the descriptions given and reality. The distinctions between the three types of discussions are primarily analytical-methodological in nature: Via the instruction it is attempted to induce with all the respondents a relatively homogenous, uniform view of the discussion contexts, corresponding with the distinctions shown in Fig. 3.1, in order to be able to exclude alternative explanations in terms of politeness. This also implies that – assuming that the data obtained indicate that personal attacks in a scientific discussion context are found to be less reasonable than in the other two contexts

– interpretations with respect to content, if the respondents might apply various judgment *norms* for different discussion contexts, are odious from a methodological point of view: The design chosen does not as a whole allow such far-reaching interpretations with respect to content.[14] At least one should in such a case – if one cannot resist the temptation of interpretations with respect to content – conclude that, even if the judgment norms of ordinary arguers in each discussion context may be the same, the *criteria* for the application of these norms would differ for each discussion context.

On the assumption that our respondents respond primarily to the sound or unsound nature of discussion moves and not so much to their politeness character, we propose the following hypothesis:

Hypothesis 3: Ordinary arguers deem speech acts with an *ad hominem* attack in domestic and political discussion contexts less unreasonable discussion moves than those in a scientific discussion context, and they shall consider speech acts with an *ad hominem* attack in a domestic context more or less equally unreasonable as similar acts in a political discussion context.

The final hypothesis is explorative in nature and reads as follows:

Hypothesis 4: Are there differences between male and female ordinary arguers in their judgment of the reasonableness or unreasonableness of speech acts with and without an *ad hominem* attack?

Crossing of the three levels of the independent variables "type of personal attack" and "type of discussion context" results in a fully crossed facet design with a total of nine combination possibilities (combination possibility 1 = direct attack in a domestic discussion context; combination possibility 2 = indirect attack in a domestic discussion context; combination possibility 3 = *tu quoque* in a domestic discussion context; combination possibility 4 = direct attack in a political discussion context; and so on).

3.3.4 Test Material

Each combination possibility in Table 3.1 was represented in the *pencil-and-paper* test to be presented to the respondents by four dialogue fragments; in each discussion context four dialogue fragments without fallacies were also presented. The representation of a combination possibility by more than one dialogue fragment means

[14] To obtain more insight into this issue, one would have to calculate the covariance matrix of the scores given by the respondents, starting from the facet design applied (see Table 3.1), and then have to analyze this with hypothesis-testing factor-analytical techniques (via LISREL for example). The central point in this analysis is whether a one-factor model "explains" the matrix better than, for example, a three-factor model (in which each factor is indicative of a type of discussion context). We have indeed tried to perform such an analysis, but attempts at this ran aground, due, amongst other issues, to the non-positive definiteness of the matrices to be analyzed.

Table 3.1 Fully crossed facet design, with "type of discussion context" and "type of *ad hominem*" as independent variables (dir. = direct attack; ind. = indirect attack; *tu q.* = *tu quoque*)

Domestic context			Political context			Scientific context		
dir. (1)	ind. (2)	*tu q.* (3)	dir. (4)	ind. (5)	*tu q.* (6)	dir. (7)	ind. (8)	*tu q.* (9)

that there is a *multiple message design* – from the nature of the issue this is to the benefit of both the internal and the external validity (Jackson, 1992).[15]

To ensure that each constructed dialogue with an *ad hominem* speech act indeed constituted an adequate representation of the intended theoretical type, three pragma-dialecticians, naturally independently of each other, assessed the 48 dialogues – the agreement was 100% (such a procedure, known as "checking the independent variable," was also applied as standard in all our other research).

For methodological reasons, the 48 discussion fragments were constructed according to a fixed pattern.[16] They each consisted of two turns, one by speaker A and one by speaker B. To avoid a possible influence of the source on the reasonableness judgment, the identity of speakers A and B was left undetermined in all cases. The contribution of A each time consisted of putting forward a standpoint, followed by an argument to support it. To keep intervening variables under control, the standpoint was in all cases indicated by means of a standpoint indicator ("I think that," "in my opinion," and so on). This manner of presentation of the argumentation always referred back: First the standpoint, then the argument. To exclude existing attitudes and convictions that the respondents might entertain about certain issues that might influence the judgment of the reasonableness or unreasonableness of the argumentation brought forward, "neutral," "non-loaded" issues were aired in all standpoints, even those within the political discussion context.

The contribution of B each time consisted of a response to A's standpoint, whether with one of the three *ad hominem* fallacies,[17] or with sound argumentation. When casting doubt on A's standpoint, in the response B used, insofar as it was applicable, indicators of the three types of *ad hominem* attacks, such as "you

[15] In all the research to be reported here, based on internal and external validity considerations, a multiple *message design* was used.Based on practical considerations, the number of messages varied from 2, the absolute minimum, to 6. The use of such designs has far-reaching consequences for the statistical analysis of the data: The customary, standard variance-analytical techniques are in such cases no longer applicable, which in general leads to a more complex form of data processing.

[16] The 48 dialog fragments were, at least in this research, constructed by an instructed doctoral student who was specialized in pragma-dialectics, but had no knowledge of the specific research hypotheses. Such a "blind" approach avoids *E-bias*.

[17] The constructed fallacies – and this is standard for all our research – constituted in all cases *clear cases* of the category concerned. Borderline cases over which differences of interpretation might arise amongst the respondents which would threaten the internal validity were therefore excluded.

must remain consistent," "do I really have to believe that?" and "the actual reason is that" (van Eemeren & Grootendorst, 1996, pp. 93–98). For each fragment, the respondents were asked: "How reasonable do you consider the response of B?"

To emphasize the differences between the three discussion contexts, the topics brought up for each type of discussion differed significantly from each other, ranging from issues concerning practical matters in a domestic context to scientific problems in the scientific domain. In addition, the discussion partners in a domestic context used informal language (conveying in their language a sense of familiarity), while in the two other discussion contexts more formal language was employed.

A few examples of dialogue fragments within a domestic discussion context follow.

combination possibility (1): *domestic discussion context; direct attack*

A: I think a Ford simply drives better; it zooms along the road.
B: You can't judge anything about this; you don't have any understanding of cars.

combination possibility (2): *domestic discussion context; indirect attack*

A: Mum, I think you really should buy yourself a new camera; the one you have is useless now.
B: You would want that, eh; you've got your eye on my camera.

combination possibility (3): *domestic discussion context; tu quoque*

A: I think you would be better off not eating so much chocolate, darling; it's bad for your figure.
B: Don't you say anything; your belly is also only getting bigger.

Examples of the three combination possibilities within the political domain:

combination possibility (4): *political discussion context; direct attack*

A: I am of the opinion that scrapping the Sunday as a day of rest may have extremely bad consequences for the social lives of employees; they would not get any rest.
B: But you are a member of a Christian party; could you ever objectively assess the benefits and drawbacks of such a decision?

combination possibility (5): *political discussion context; indirect attack*

A: In my opinion, we can best take Stelcom Inc. for the dike improvements; this is really the only contractor in the Netherlands that would be able to manage such a large-scale task.
B: Do you really expect us to believe that? It can hardly be any coincidence that you recommend just this company; your father-in-law owns it.

combination possibility (6): *political discussion context; tu quoque*

A: I am of the opinion that a Minister may never conceal information from the house; that would be a deathblow for democracy.
B: You would have to say that; you yourself did at one time conceal a case of subsidy fraud for months.

Examples of the three combination possibilities within the scientific domain:

combination possibility (7): *scientific discussion context; direct attack*

A: I believe that you have acted extremely unethically, you did not tell your patients in advance what they would be exposed to.
B: What do you know about ethics? You are not a doctor at all.

combination possibility (8): *scientific discussion context; indirect attack*

A: In my view, there is still the question of whether smoking really does lead to lung cancer; there are studies that refute this.
B: Do I really have to believe this from you? Everyone knows that your research is sponsored by the tobacco industry.

combination possibility (9): *scientific discussion context; tu quoque*

A: The way in which you have processed your data statistically is in my view not entirely correct; you should have expressed the numbers in percentages.
B: Come now; your own statistics are not up to the mark either.

Finally, three examples of sound argumentation within each of the three types of discussion:

A: I feel that you can certainly trust me with the car; I am a great driver.
B: I don't believe that at all; I have lent you my vehicle twice, and both times you damaged it.

A: In my opinion, we have never made an empty election promise; we have always properly met our promises.
B: No one believes that; at the last elections you promised lower taxes for example, but in the four years that you have been in government the people have only had to pay more in tax.

A: I am of the opinion that there is nothing to be remarked about my integrity as a scientist; I have always performed research in an honest and sound manner.
B: Do we really have to believe this? Twice now it has been apparent that you have fiddled the results of your research.

Note that the dialogue fragments in which no *ad hominem* attacks appear are constructed according to the same fixed pattern that was applied for the construction of the fallacious dialogue fragments. B's response is just as much marked by *ad hominem* indicators (such as "No one believes that") in order to ensure that the fallacious and the non-fallacious dialogue fragments appear as similar as possible to each other and differ as little as possible in terms of politeness.

3.3.5 Procedure: Instruction

In the written instruction to the respondents it was communicated that people may hold different ideas concerning the question of what is or is not permissible in a discussion, what is or is not reasonable – without the term *reasonable* being further specified. To them was the task of expressing a judgment on the reasonableness of a number of discussion contributions. It was explicitly communicated that the discussions on which they had to give their judgment were happening in three different domains: The first domain was the domestic situation (which was called the breakfast table), that was characterized in the instruction as an "informal situation." The second domain, that of the political debate, was typified as a much more formal situation in which it is often extremely important to persuade others of one's opinion. The third domain was described as the scientific discussion in which – as was emphasized – it was not so much a matter of persuading others but of resolving a difference of opinion in an acceptable manner: Who is right is more important than with whom one agrees.

It was not possible to say any more about the characteristics of a critical discussion: It had of course to be avoided that the respondents got to learn something in the instruction about which they subsequently only had to show how well they had been able to apply the knowledge they had just acquired. In order to avoid socially desirable answers, it was emphasized in the instruction that there were no right or wrong answers: Only the opinion of the respondents themselves counted. To help ensure that all respondents would respond to the fragments in as much the same sort of way as possible, it was emphasized in the instruction that in their judgment of the reasonableness of B's response they must assume that both discussion partners always spoke the truth.[18] In order to be certain that the respondents placed the dialogue fragments in the stated domain, the 16 discussion fragments that belonged in a certain discussion situation were presented one after the other, with above each fragment in block capitals which situation was being addressed: DOMESTIC SITUATION 1, DOMESTIC SITUATION 2, and so forth. When all 16 fragments had been judged for reasonableness, there followed – once again – the description of (for example)

[18] This element was explicitly added to the instruction since from a *pilot* it was apparent that respondents found it confusing that they did not know whether the discussion partners were indeed speaking the truth. Aside from this, in all the research reported here a pilot study was performed as standard to investigate whether the instruction was actually clear, whether the fragments presented were in all respects adequate, to determine the time required, and so forth.

the political debate, after which the 16 dialogue fragments within this domain were presented. Finally there followed – once again – a brief description of the scientific discussion, after which came the 16 associated fragments.

The test was presented in the six possible orders. To suppress class effects, within each of the four classes participating in this study one of the six orders was presented to each student selectively. To investigate whether this (control) variable concerning the order in which the dialogue fragments were presented had any influence, a statistical test was performed in which the reasonableness scores of the 36 fallacious fragments were contrasted with those of the 12 non-fallacious fragments, abstracting from the type of *ad hominem* attack and the type of discussion context. No significant differences were encountered between the 6 orders (main effect of order: $F(5,86) = 0.79$; $p = 0.56$; interaction: $F(5,86) = 1.30$; $p = 0.27$).[19]

3.4 Results

Do the respondents – as predicted in hypothesis 1 – make a distinction in reasonableness between discussion moves that, measured by pragma-dialectical standards, contain a fallacy and discussion moves that do not contain a fallacy? When we compared the 36 dialogue fragments that contained an *ad hominem* fallacy with the 12 dialogue fragments in which no pragma-dialectical rule was violated, the discussion moves without a fallacy were found to be reasonable on average (i.e. 5.29), while the discussion moves with a fallacy were regarded as fairly unreasonable (i.e. 3.75), a strong difference in view of the range of the Likert scale applied (see Table 3.2).

For a statistical assessment of hypothesis 1, each of the three types of *ad hominem* fallacies (each represented by 12 dialogue fragments) were contrasted with the 12 non-fallacious moves, abstracting from the type of discussion context. Each of the three fallacies appeared (after applying the Bonferroni criterion) in a statistical sense to be found less reasonable than the non-fallacies: Direct attack $F(1,34) = 134.38$;

Table 3.2 Average reasonableness score for discussion moves with and without violation of the freedom rule (standard deviation between parentheses)

	Violation of the freedom rule	No violation of the freedom rule
Overall	3.75 (0.46)	5.29 (0.64)
Direct attack	2.91 (0.64)	
Indirect attack	3.90 (0.57)	
tu quoque	4.45 (0.59)	

[19] Note that these non-significant results are also incompatible with an alternative explanation of the research results in terms of an practice or learning effect. In order to further exclude such effects, statistical tests were performed on possible differences between the first 5 discussion fragments and the last 5, insofar as these fragments were at least of the same type. No statistically reliable differences were found, which indicates the absence of learning effects.

ES = 0.47; indirect attack F(1,27) = 34.78; ES = 0.21; *tu quoque* F(1,26) = 11.78; ES = 0.09.[20] The results are in agreement with hypothesis 1, which may therefore be regarded as confirmed.

Do the respondents also, as predicted in hypothesis 2, make a distinction in reasonableness between the three types of fallacies, and do they also, as predicted in hypothesis 3, discriminate between the three discussion contexts? Table 3.3 shows the relevant statistics (each average was based on the reasonableness scores for 4 dialogues).

Hypotheses 2 and 3 were simultaneously statistically tested.[21] As expected, the main effect for the type of *ad hominem* attack appeared significant (F(2,33) = 25.22; p <0.01; ES = 0.16). The direct attack was deemed the least reasonable

Table 3.3 Average reasonableness score for three types of *ad hominem* fallacies (direct attack, indirect attack, *tu quoque*), for each type of discussion context

	Direct attack	Indirect attack	*Tu quoque*
Domestic context	3.29 (0.88)	4.08 (0.88)	4.92 (0.86)
Political context	2.89 (0.93)	4.19 (0.90)	4.77 (0.82)
Scientific context	2.57 (0.81)	3.43 (0.84)	3.66 (0.86)

[20] Under the assumption of a *repeated measurement design* in which the *random* Replication factor (with 12 levels) is nested within the fixed factor "Is/Is Not Violation of the Freedom Rule" (with 2 levels), and is crossed with the *random* Respondent factor, "quasi F ratios" must be calculated (as proposed, for example, by Clark (1973)). All F ratios reported in this volume are of this type. For the sake of convenience, we report these F's not in the conventional manner (as: F' – F-prime), but simply as F. The degrees of freedom for such quasi-tests are not precise, but must be approximated (by, for example, the method developed by Satterthwaite (1946)). This approximation method is precisely the reason that in the three reported F ratios, although the number of respondents, number of replications and number of levels of the fixed facts are exactly the same, differences in the numbers of degrees of freedom (for the denominator) are found. Effect sizes are reported in this volume as ES (*effect size*); these refer to the proportion of variance of the total (explained by all variance sources within the specified statistical model) variance that is associated with a certain effect, under abstraction of the variance source that is associated with the "intervening" variable Respondent (the variance sources for the interactions of respondents with the other effects in the model are certainly involved in the calculations of ES). Since the variance-analytical data technique employed here (applied to a "mixed design") rests on rather heavy statistical assumptions that are in practice often difficult to check (such as those of sphericity and independence), an alternative data technique such as multilevel analysis (in which as a whole such heavy assumptions are not made) have preference, but due to the relative unfamiliarity of this latter data technique we apply the conventional, more trusted and customary analysis of variance.

[21] In this case, just as was the case with hypothesis 1, quasi F's had to be calculated. A statistical model constituted the starting point for this, in which the random Replication Factor (with 4 levels) was nested within the interaction of the two fixed treatment variables (i.e. the type of *ad hominem* and the type of discussion context) and was crossed with the *random* Respondent Factor (this is typically a situation that gives rise to quasi F's; crossing of two *random* factors). For this statistical model, the enumerator of the quasi F for (for example) effect A consists a composite of (MS(A) + MS(Rep(AB) × Respondent)), while the denominator consists of (MS(Rep(AB)) + MS(Respondent × A)).

(average: 2.91), followed by the indirect attack (3.90) and finally the *tu quoque* (4.45). This "overall" ordinal pattern occurred in fact within each of the three discussion contexts: The direct attack was without exception found in a statistical sense less reasonable than the other two attacks (the first orthogonal *a posteriori* Helmert contrast appeared statistically significant: ($F(1,33) = 43.33$; $p < 0.01$)), while the indirect attack was invariably judged as less reasonable than the *tu quoque* variant (the second orthogonal *a posteriori* Helmert contrast is also significant ($F(1,33) = 6.42$; $p < 0.05$)). It is striking that the direct attack is seldom seen as a reasonable move, while the indirect attack and the *tu quoque* are only regarded as unreasonable within a scientific discussion context.

As far as hypothesis 3 is concerned, the respondents clearly discriminate between rule violations in a scientific context and rule violations in the two other contexts (the first orthogonal *a priori* Helmert contrast is significant ($F(1,35) = 16.88$; $p < 0.01$)): Fallacies in scientific discussion contexts (average: 3.22 (0.61)) are deemed more unreasonable than in the other two contexts (3.94 (0.66) and 4.09 (0.62) in a political or domestic discussion context respectively), a result that is fully in line with hypothesis 3. The second Helmert contrast between a political and a domestic discussion context accords with the expectations specified in hypothesis 3; there appears to be no statistically reliable difference in reasonableness or unreasonableness between the moves in these two discussion contexts ($F(1,35) = 0.45$; n.s.).

As far as hypothesis 4 is concerned, the results in Table 3.4 reveal that the 50 male respondents do not on average respond differently to the 36 fallacies presented than the 42 female respondents ($t(90) = -0.79$; n.s.). The female respondents do not differ from the male respondents in their judgments on any of the three investigated fallacies when taken separately: The direct attack, the indirect attack and the *tu quoque* variant are in the two samples concerned successively judged as 2.95 (0.68) versus 2.87 (0.61), 3.92 (0.55) versus 3.88 (0.59) and 4.51 (0.62) versus 4.40 (0.58). Statistical testing of these differences (using a t test for 2 independent samples, with invariably 90 degrees of freedom) yielded as t values 0.60, 0.29 and 0.89 respectively, values that in all three of the cases were far from significant. There were equally no statistically reliable differences between the sexes to be found concerning their judgment of the reasonableness of sound argumentation ($t(90) = 0.66$; n.s.).[22]

Table 3.4 Average reasonableness score for discussion moves with and without violation of the freedom rule, divided according to gender

	n	Freedom rule violation	No freedom rule violation
Male	50	3.72 (0.45)	5.33 (0.64)
Female	42	3.79 (0.47)	5.24 (0.65)

[22] If the t tests, in which averages are contrasted (under abstraction of individual variance between the instantiations/representations), are replaced by quasi F's, the conclusions are identical (for example: Both the quasi F for the 36 fallacies ($F(2,94) = 0.55$) as for the 12 sound fragments ($F(2,72) = 0.73$) identically indicate no difference between the two sexes). In addition, in virtually

3.5 Discussion

The average reasonableness score for discussion moves in which a violation of the freedom rule is committed is, as explained earlier, 3.75, while the average for the discussion moves in which there is no such violation is 5.29 – a fairly significant difference in view of the 7-point scale used. Speech acts in which the freedom rule is violated are deemed less reasonable not only in a relative sense but also in an absolute sense: On average, the respondents judge the fallacies as "fairly unreasonable," while they judge the non-fallacies as "reasonable." In addition, the fallacies in a scientific discussion, the discussion context that is deemed to approach the ideal of the critical discussion most closely, are judged most strictly. All these results appear to support the conventional validity of the freedom rule.

3.5.1 Politeness as an Alternative Explanation: Motivations

There is, however, an alternative explanation for the principal results of this experiment, an explanation that has already been discussed a number of times and account of which was taken in the design of this experiment: Politeness. The empirical data for hypothesis 2, for example, are fully in agreement with this explanation: The respondents judge the direct attack (the most impolite variant of the three personal attacks distinguished) as the least reasonable move, while they invariably find the least impolite variant (*tu quoque*) the most reasonable. For hypothesis 1, our primary hypothesis when looking at the "testing" of the conventional validity of the pragma-dialectical discussion rules, this alternative explanation amounts to the following: Our respondents would have judged the fallacious moves as unreasonable due to the impolite nature of these moves, while they would equally have judged the sound moves as reasonable due to the circumstance that these are not necessarily impolite.

Two substantial objections may, however, be brought forward against this possible criticism. Firstly, the presented dialogue fragments in which the non-fallacious moves occurred were also in fact impolite: These sound discussion moves were of course, exactly as was the case for the fallacious moves, given *ad hominem* indicators such as "oh come now," "do you really expect us to believe that," and so on. Such indicators, that by and large may be characterized as fairly impolite forms of expression, decidedly do not improve the atmosphere in a discussion. Secondly, if all our respondents responded primarily to the impolite nature of the moves, how may it ever be explained that they, fully in accordance with hypothesis 3, discriminated between the unreasonableness of (fallacious) moves in two discussion contexts (i.e. the political and the scientific) that may more or less to the same extent be called

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all the research reported in this book, the variable "gender" is included, but nowhere is there any significant difference encountered between men and women, either in the judgment of fallacies or in the judgment of sound argumentation. We will make no further comments on this variable "gender."

formal, but differ in the extent to which they approach the ideal of a critical discussion? The results appear rather to indicate that the respondents are mainly sensitive to by and respond primarily to the quality – or lack thereof – of the argumentation given.

However impressive the statistical material in Table 3.3 may be, there perhaps still remains room for doubt: The results in Table 3.3 may indeed indicate clearly *how* the respondents discriminate between the three discussion contexts, but they give little insight into the question of *why* the respondents judge as they judge. New research was therefore set up (an "altered replication") with the objective of ascertaining why exactly fallacious and non-fallacious discussion moves are considered to be unreasonable or reasonable. What motives, what reasons do the respondents themselves give for this? To what extent do the respondents justify themselves in their rationales for a violation of a discussion rule?

In this experiment, to which 24 respondents of comparable age and education lent their co-operation, not only did the discussion fragments have to be judged for reasonableness, but the judgments given also had to be given a brief written explanation ("state briefly why you consider B's response to be reasonable or unreasonable"). Because of the more limited test time as a result of the explanations requested, the original number of fragments was reduced to 24 (each fallacy was now represented by only two, instead of four, fragments within each type of discussion context, plus two fragments in which no rule violation took place). In 12 of these 24 fragments, the respondents had to explain in writing why they deemed B's response to be reasonable or unreasonable. The quantitative results, even in this significantly smaller sample in which, in addition, far fewer fragments had to be judged, were fully in line with those of the original, more large-scale study.[23]

The 288 answers of the respondents were coded into seven categories (to avoid contamination of the research material, this coding system was developed on the basis of the answers of 10 other respondents in verbal interviews[24]). Of these 288 justifications, only 170 answers could be interpreted: In 16 cases there was no written justification given, while in 102 cases the answer could not be brought under one of the five "content" categories of the coding system. This was, for example, the case with answers such as "I have the strong suspicion that something is wrong, but I cannot say why." 62 answers could be classified as "rule violations" ("B's response is unreasonable since he does not respond at all to A's standpoint; he only points to

[23] Also in this research (n = 24; k = 24), fallacies were found to be far less reasonable than non-fallacies (fallacies: 3.43 (0.64), non-fallacies: 5.26 (0.72)) and also in this study the now known order of reasonableness was encountered: The direct attack was judged as the least reasonable (2.99 (0.76)), followed by the indirect personal attack (3.47 (0.94)) and finally the *tu quoque* variant (3.82(0.88)). Also now the fragments in a scientific discussion context were most strictly judged (average 2.63(0.79)), while no differences in reasonableness were found between the other two discussion contexts (Domestic context = 3.78(0.72) and Political context = 3.88 (0.82)).

[24] In all these cases in which the motives of the respondents were also requested, a coding scheme had to be developed. To discourage *ad hoc* coding, as a rule such a scheme – other than in the research reported here in which verbal interviews were involved – was set up on the basis of an random sample consisting of 10% of the entire material.

A's personal interests"), 64 answers belonged to the category "lack of relevance" ("B's response is unreasonable since it is not relevant"), 19 to the category "politeness" ("B's response is impolite since he could have said it more politely"), 17 to the category "unsound/poor argumentation" ("B's response is unreasonable since his response is a poor argument") and the remaining 4 answers could be included in more than one category.

It is clear that the large majority (86%) of the justifications given in which a content interpretation appeared possible, can be related to the lack of quality in the fallacious argumentation, while only a small part (11%) of these justifications can be attributed to the impolite nature of such discussion moves. These results, combined with those in Table 3.3, indicate that the respondents primarily judged the discussion fragments on the basis of the argumentative quality of the discussion contributions, and not so much in terms of politeness.

Also, although a written explanation was occasionally given by a respondent from which – with some caution – it could perhaps be deduced that he or she deems a move beyond the pale since a discussion or conversation rule has been violated, this does not detract from the fact that not a single respondent – either in the verbal interviews beforehand or in the written study – appeared able to formulate such a discussion rule also at a somewhat more abstract, more general level, even when the verbally questioned respondents were suitably steered and helped by the experimenters ("But do you not see any similarities between these two discussion fragments?"). For all respondents in the verbal interviews, without a single exception, the question of why ("Why do you consider this discussion contribution reasonable/unreasonable?") was a non-commonplace and abstract question which was also very difficult to answer, as a result of which steering was more than once necessary. In the bulk of the cases, the respondents responded to "superficial," often content-related characteristics of the (example) discussion fragment presented to be judged, without being able to view the concrete fragment as an instrumental, exemplary realization of a more abstract rule. Not one respondent granted discussants the principal right to bring forward or cast doubt on any standpoint they wished. The respondents equally did not appear to be able to formulate rights and obligations of discussants that are of a somewhat more general, preliminary nature – the willingness, for example, of a discussant to commit himself or herself to certain assumptions (concessions). Although normal ordinary arguers might logically and systematically dismiss fallacies that constitute a violation of the rule for the confrontation stage on the basis of the lack of argumentative quality, they generally lack the analytical reflective ability to deduce a common pattern or rule from a series of instantiations of the category of "fallacies" concerned.

3.5.2 Politeness as an Alternative Explanation: Reasonable Versus Fallacious Personal Attacks

The results of the above research into the written motivations of reasonableness judgments must be interpreted with due caution. One of the problematic aspects

of this study is that it starts from the (possibly doubtful) presupposition that our respondents are also able to ascertain and explain the precise basis of their stated reasonableness judgments – judgments that, as is revealed, operate at an unconscious or semi-conscious level. Another problematic aspect concerns the possibility that cannot be excluded in this motivation study that respondents are able knowingly to present a socially-desirable image of themselves ("I am a rationally-judging subject who judges solely on the basis of critical-rational considerations"), while when examined closely the reasonableness judgment is actually based solely on subjective emotional, politeness-dependent considerations.

In order to be able to exclude politeness as an alternative explanation of the results with greater power of argument and with greater certainty, a completely different type of empirical study was performed that is not troubled with the aforementioned potentially problematic aspects; in this study, 47 students had to judge the reasonableness of both reasonable and fallacious *ad hominem* attacks. There follows an example of one of the discussion fragments presented for judgment to the respondents in which there is a reasonable *tu quoque* attack[25] (this fragment was presented in a domestic discussion context):

A: Your words do not in my view match up with your deeds.
B: What do you base that on?
A: You start telling me about the importance of a good breakfast and you yourself only have a cup of coffee and a cigarette for breakfast.

In the following example (also a fragment that was presented in the context of a domestic discussion), by contrast, the pragma-dialectical freedom rule is violated and there is an unreasonable, fallacious discussion move (*tu quoque*):

A: I am now certainly old enough to smoke if I want to.
B: I think you would be better off leaving smoking alone, boy; it is really unhealthy.
A: Ah, just look at yourself, dad; you smoke yourself.

In the experiment concerned, not only reasonable and fallacious personal attacks of the type *tu quoque* were presented, but also those of the type "abusive" (direct attack). There follow two examples of discussion fragments presented in a domestic

[25] The starting point in the (fallacious) *tu quoque* variant is that whoever is not consistent can also not be right. Whoever preaches what he does not himself practice is of course inconsistent, but this does not automatically mean that his standpoint is therefore incorrect. In order to be able to determine the acceptability of this standpoint, the arguments brought forward must be judged. The point that the non-fallacious variant of the *tu quoque* attack revolves around is that it is absolutely not a fallacy when it concerns a contradiction of a standpoint that someone has adopted *within* the discussion – on the contrary, looking for inconsistencies is even a necessary part of the judgment.

discussion context; the first example contains a reasonable personal (direct) attack, the second a fallacious one.[26]

A: I really find you extremely untrustworthy.
B: How is that?
A: We agreed that you wouldn't tell anyone and now the whole neighborhood knows.

A: I think a secondhand vehicle is the best option for us at the moment.
B: My feeling is that we would be much better off buying a new one; maintenance is much cheaper.
A: Oh come now! You can't make any judgment about that; you don't understand anything about cars.

Note that in both types of attacks, both in the reasonable and in the unreasonable variant, there is a "face threatening act": In one case, the antagonist is attacked straight out directly by the protagonist on the standpoint he brought forward and is reproached as being an untrustworthy subject (an attack that on the request of B is provided by the protagonist in his second turn of explanation or argumentation), in the other case the antagonist who has brought forward an opposing standpoint to that of the protagonist, is directly personally attacked by the latter through accusing the antagonist of a fundamental lack of knowledge and it is implicitly made clear that he or she had better keep their mouth shut – so not have any right to speak. In terms of impoliteness, both types of attack are therefore comparable: In both types a person is directly attacked. Under the circumstances created by this, should the unreasonable, fallacious personal attack be judged as an unsound move by our respondents while the reasonable attack be regarded by them as acceptable, then for this difference in reasonableness judgment the "politeness" factor may be put forward as the explanation only with difficulty.[27]

The test presented to the 47 students consisted this time of 60 fragments, of which 20 were located in a domestic, 20 in a political and 20 in a scientific discussion context. In the instruction, the differences between these three contexts was explained and clarified, without mentioning the term "fallacy" or "rule violation," let alone

[26] When something exceptionally unpleasant is said about someone, as is the case in this example ("I really find you extremely untrustworthy"), this does not yet mean by definition that there is also an *argumentum ad hominem,* even if it constitutes an argument that is aimed at discrediting the person concerned. Whoever wants to defend the standpoint that B is untrustworthy can do little other than recount negative actions, characteristics or behaviors of B, but once again this is in itself absolutely not a fallacy.

[27] Aside from this, note that the contrast between the fallacious and reasonable variants from a methodological point of view is not as distinct as would be desirable: For the reasonable variants, the impoliteness is located in particular in the standpoint brought forward, in the fallacious variants in the response to this standpoint or in the argumentation that is brought forward on the request of the antagonist. But it is difficult to do otherwise: It would be pointless to have the respondents judge in the one case on the "reasonableness" of the standpoint, and in the other case on the "reasonableness" of the argumentation brought forward.

explaining them. Above each fragment the discussion context concerned was stated, in bold block capitals (for example: **POLITICAL DEBATE 1**). Within each discussion context, 12 fragments contained an *ad hominem* fallacy (i.e. 4 direct personal attacks, 4 indirect attacks and 4 *tu quoque* attacks), while half of the other 8 fragments contained reasonable direct attacks and the other half contained reasonable *tu quoque* attacks. All fragments consisted this time of three turns at speaking. The task for the respondents was to rate and judge the reasonableness or unreasonableness of the last contribution to the discussion.

The results that relate to the fallacious fragments are shown in Table 3.5. It is clear that our earlier results (based on discussion fragments consisting of only two turns) accord with the current ones, even though these are based on fragments consisting of three turns. This means that for the assessment of the unreasonableness of fallacies it did not matter to the respondents whether these were committed by the antagonist (in the case of two turns) or by the protagonist (in the case of three turns).

The respondents discriminate, as previously, between the three types of fallacious attacks ($F(2,55) = 18.69$; $p < 0.01$; $ES = 0.09$); the direct attack was again found to be the least reasonable (3.08 (0.66)), followed by the indirect attack (3.82 (0.92)) and then the *tu quoque* (4.15 (0.61)). Again, just as in the previous study, the *tu quoque* was only regarded as an unreasonable move in the context of a scientific discussion. In this study, again, the respondents discriminate between the three discussion contexts in a way that is entirely consistent with what was found in the main study ($n = 92$; see Table 3.3): The fallacious discussion fragments in the context of a domestic discussion were judged equally as unreasonable as those in the context of a political debate ($F(1,60) = 2.22$; n.s.), while the fallacious fragments in a scientific discussion context were judged as more unreasonable than those in the other two contexts ($F(1.60) = 5.45$; $p < 0.05$).

What is the situation with the contrast between the reasonable and the unreasonable variants of the personal attack, variants that according to pragma-dialectical criteria differ radically in reasonableness but other than this are identical in terms of impoliteness? Do the respondents make a distinction in reasonableness between these two variants that, from a theoretical point of view, are radically different? Table 3.6, in which the 12 reasonable variants in terms of average are set against the 12 unreasonable, fallacious variants of the direct *ad hominem* and of *tu quoque*, reveals that our respondents are certainly able to distinguish the false, fallacious attacks

Table 3.5 Average reasonableness score for three types of *ad hominem* fallacies for each type of discussion context ($n = 47$)

	Direct attack	Indirect attack	*Tu quoque*
Domestic context	3.19 (0.71)	3.37 (0.89)	4.44 (0.99)
Political context	3.04 (0.93)	4.21 (0.81)	4.62 (0.82)
Scientific context	3.02 (0.94)	3.89 (0.92)	3.40 (0.90)

Table 3.6 Average reasonableness score for fallacious and non-fallacious personal attacks, for each type of personal attack (direct attack and *tu quoque* variant)

	Direct attack	*Tu quoque*
Fallacious (k = 12)	3.08 (0.66)	4.15 (0.61)
Reasonable (k = 12)	5.08 (0.64)	4.97 (0.64)

from those attacks that, measured according to theoretical normative criteria, are certainly allowed.

The fallacious variants of the direct attack are deemed substantially more unreasonable than the corresponding reasonable variants ($F(1,47) = 75.08$; $p < 0.01$; ES $= 0.36$), something that also, albeit to a somewhat lesser degree, is the case for the *tu quoque* ($F(1,31) = 8.98$; $p < 0.01$; ES $= 0.08$). These results, supplemented by all the previous results that were gathered in the context of excluding the alternative explanation under discussion here, make the proposed alternative explanation of the research results in terms of the "politeness" factor certainly highly implausible.

3.5.3 Politeness as an Alternative Explanation: Statistical Elimination of the Covariate Politeness

In another experiment, also intended to exclude politeness as an alternative explanation, 66 students were requested to express their judgments regarding 48 dialogues *directly* on both the reasonableness and the politeness of the last discussion contribution. To hide the objective of the research, the respondents also had to give their judgments on the relevance and the persuasiveness of this contribution.[28] Such direct questioning on both reasonableness and politeness makes it possible to filter out on statistical grounds the "intervening" effect of the politeness variable on the reasonableness judgment.

Also in this study (see Table 3.7), sound moves are deemed more reasonable than fallacious moves (5.09 (0.67) versus 4.04 (0.69)); exactly the same pattern does, however, occur, though to a lesser degree, for politeness: Sound moves are deemed more polite than fallacious moves (4.34 (0.62) versus 3.65 (0.63)).

In this study also, the direct attack is deemed the least reasonable, followed by the indirect type and finally the *tu quoque* variant. This reasonableness pattern is reflected in the corresponding politeness relationships, although the mutual differences in politeness are again somewhat less pronounced than for reasonableness. From the absolute sizes of these reasonableness and politeness differences it may be deduced that, assuming that the "politeness" variable plays a significant role as an explanation of the differences found in reasonableness, politeness cannot,

[28] The last two scales therefore functioned as "distracters" in order to conceal the objective of the experiment.

Table 3.7 Average reasonableness and politeness score for three types of *ad hominem* fallacies (direct attack, indirect attack and *tu quoque* variant) and for reasonable argumentation

	Direct attack	Indirect attack	*Tu quoque*	Reasonable
Reasonableness	3.38	4.21	4.54	5.09
	(0.87)	(0.78)	(0.72)	(0.67)
Politeness	3.15	3.86	3.94	4.34
	(0.79)	(0.70)	(0.62)	(0.62)

even so, explain away *all* differences in reasonableness between fallacious and non-fallacious discussion contributions.

However this might be, it is evident in view of the results in Table 3.7 that (judged) reasonableness and (judged) politeness correlate strongly, or co-vary. To disentangle this relationship (and thus excluding politeness as an alternative explanation), we employ a technique designed specially for this type of problem; analysis of covariance.[29] The crucial question when applying analysis of covariance is: What remains of observed differences if the effect of a covariate is eliminated? Focusing on our problem: Is fallacious argumentation still found to be more unreasonable than sound argumentation if we (as a result of the statistical elimination of the politeness covariate) act as though both forms of argumentation are equally polite? It may be deduced from Table 3.8 that this is indeed the case.[30]

Although politeness sometimes plays a role in the judgment of the reasonableness or unreasonableness of sound and fallacious *ad hominem* argumentation (especially in the direct attack, note the fall in effect size when politeness is eliminated as a covariate), this does not detract from the fact that critical-rational considerations have the upper hand in the reasonableness judgment.

[29] An example for clarification. Suppose that a researcher wishes to investigate the effects of an experimental didactic in (initial) reading by young readers, and sets up an experiment for this. Starting readers in one class are assigned to the experimental didactic, those in the other class are subjected to the control didactic. Suppose that after the passage of time it appears that the readers with the experimental didactic achieve higher reading scores than the pupils with the control didactic, then this advance could alternatively be explained by initial differences in intelligence between the pupils in the experimental and the control condition (intelligence of course depends on or covaries with reading skills). If, however, the experimenter has the IQ's of all the pupils available, he can keep the effect of these under control by including intelligence as a covariate in the statistical analysis; covariate analysis eliminates all initial differences in intelligence between the two groups (in a statistical sense), making use in this of the correlation between the covariate (in this case intelligence) and the dependent variable (in this case reading skill).

[30] A somewhat problematic aspect attached to the method of analysis of covariance applied here may not go unreported. The contrast performed in Table 3.8 (significance testing for the difference with and without removal of the effect of the covariate) is less pronounced than desirable. As a result of computational problems, the analysis of covariance could not be performed on the original 12 fallacies and 12 sound argumentations, but on a random selection of 18 argumentations in total. Therefore results occurring by chance, although highly improbable, cannot be excluded.

Table 3.8 F ratios and effect sizes for the difference between the reasonableness of the direct attack, the indirect attack and the *tu quoque* attack on the one hand, and of sound argumentation on the other, without (left half of table) and with (right half of table) elimination of the covariate politeness

	Without elimination of covariate	With elimination of covariate
Direct attack	$F(1,27) = 40.94$ ($p < 0.01$; ES = 0.33)	$F(1,36) = 6.06$ ($p < 0.05$; ES = 0..03)
Indirect attack	$F(1,21) = 13.00$ ($p < 0.01$; ES = 0.13)	$F(1,22) = 6.83$ ($p < 0.05$; ES = 0.05)
tu quoque	$F(1,21) = 6.53$ ($p < 0.05$; ES = 0.07)	$F(1,21) = 3.52$ ($p < 0.10$; ES = 0.03)

3.5.4 The Nature of the Standpoint as Alternative Explanation

A second alternative explanation for (at least part of) the research results is possible: The differences in reasonableness encountered between the three discussion contexts must not so much be ascribed to differences in formal and critical nature, as to differences in the "nature of the standpoint" that is brought forward by the protagonist in each of the three contexts.

The propositions that are expressed in the standpoints to be defended may according to their nature be divided into descriptive, evaluating and inciting propositions. In descriptive propositions, facts or events are described ("The exchange rate of the Euro is hardly stable"), in evaluating propositions, a judgment of facts or events is expressed ("Ex-president Clinton is an underestimated statesman") and in inciting propositions a certain way of acting must be followed ("You should eat a bit less chocolate, dear").

The examples demonstrate that all three of the types of propositions may be expressed in an assertive speech act. Inciting standpoints are often indirect controllers that relate to actions that must be performed, in evaluative standpoints value judgments play a predominant role, while – and this is the central point here – descriptive standpoints may be true or untrue. It is in every way conceivable that ordinary arguers would find fallacious moves that imply an attack on descriptive standpoints in which the term "truth" plays such as major role as less reasonable than fallacious attacks on "solely" appealing or evaluative standpoints. There is, of course, nothing to be disputed over facts, let alone that someone who propagates such indisputable facts is rebuffed. From a classification afterwards of all 48 discussion fragments that were presented to the respondents for judgment in the experiment in question, it appeared that the discussion fragments in a scientific discussion context contained primarily – unintended – descriptive standpoints, while in the other two discussion contexts appealing and evaluative standpoints prevailed.[31]

As is apparent from the classification in Table 3.9, the variable "nature of the standpoint" co-varies with the variable "discussion context" so that an unequivocal

[31] The domestic and political domains in which there is often "practical argumentation" appear in their nature to lend themselves better to the construction of discussion fragments with evaluative and appealing standpoints, while in a scientific discussion context descriptive standpoints prevail.

Table 3.9 Distribution of the number of discussion fragments according to "nature of the standpoint" (appealing, evaluative, descriptive) across the three discussion contexts (D = domestic discussion context; P = political discussion context; S = scientific discussion context)

	D	P	S
Appealing	11	6	2
Evaluative	3	8	2
Descriptive	2	2	12

interpretation of the research results is excluded. A new study was set up to exclude this alternative explanation. The starting point of this new study in which 72 new fragments were constructed in which the nature of the standpoint was kept systematically under control, was constituted by the study described above in which the three variants of the personal attack were central and which was reported earlier. Each of the three types of personal attack were now instrumentally realized in each of the three discussion contexts by not four but six discussion fragments: In two of these, the protagonist brought forward a standpoint that was descriptive in nature, in two a standpoint of appealing nature and in the remaining two of evaluative nature.[32] In so doing, the three types of personal attacks and the three types of discussion contexts no longer differ in the nature of the standpoints.

Since the judgment of 72 fragments could not be completed in a single lesson – our experience is that the judgment of 48 fragments is about the maximum that students of this age and level can manage in 1 hour – a group of secondary (high) school students (4-VWO) was divided into two, with one half (group I: n = 38) only being presented with the fragments from the domestic and the political domains while the other group (group II: n = 37) had to judge the fragments in the political and scientific domains. Both groups were composed at random, so equivalence of these two groups may be expected; if differences in reasonableness are encountered between, for example, the fallacious discussion fragments in a scientific context and those in the other two contexts, it is not very probable that these differences can be ascribed to the circumstance that one group is, for example, much more strict in its judgment that the other. Since both groups are presented with partly the same (political) fragments, statistical control of this equivalence afterwards is also possible.

The results are identical and again consistent with the results of the earlier *ad hominem* studies: In both groups, fallacies were again found to be less reasonable

[32] The 72 text fragments contained a fallacy 54 times (3 types of fallacies × 3 types of discussion fragments × 3 types of standpoints, each represented two times) and 18 times sound argumentation (in which the three types of standpoints were evenly divided). It appeared difficult to construct fragments in which there was a combination of a descriptive standpoint and a *tu quoque* fallacy, especially within the domestic discussion context. A purely "you jest" for example as a response to a description of an actual state of affairs often seems highly affected; this artificial character disappears, however, in fallacious responses in which the antagonist points to inconsistencies of the protagonist with the aim of excluding him as a serious discussion partner on these grounds.

Table 3.10 Average reasonableness score for three types of *ad hominem* fallacies, per group (group I: domestic and political domains; group II: political and scientific domains)

	Direct attack	Indirect attack	*Tu quoque*
Group I (n = 38)	3.11 (0.75)	3.92 (0.67)	4.85 (0.63)
Group II (n = 37)	2.88 (0.73)	3.76 (0.77)	4.26 (0.69)

than sound moves (group I: fallacies 3.95 (0.50), non-fallacies 4.73 (0.49); group II: fallacies 3.63 (0.62), non-fallacies 4.76 (0.68)). In both groups, there was again strong discrimination between the three types of personal attack (group I: $F(2,31) = 24.35$; $p < 0.01$; group II: $F(2,27) = 15.07$; $p < 0.01$) and the by now known order of unreasonableness was found: The direct variant of the personal attack was again judged as the least reasonable, then the indirect variant and finally the *tu quoque* variant (see Table 3.10).

That the reasonableness judgments in group II are in general somewhat stricter must naturally be ascribed to the fact that this group, unlike group I, also had to judge fragments in a scientific discussion context as well as fragments in a political discussion context: It yet again appears that the fallacies in a scientific discussion context are found to be substantially more unreasonable than those in a political debate (see the results in Table 3.11 for group II: $F(1,25) = 9.85$; $p < 0.01$), while no differences could be found ($F < 1$) between the two other discussion contexts (in group I). Since the two groups do not differ significantly from each other in the judgment of the unreasonableness of these discussion fragments that they have both judged (i.e. the discussion fragments in a political context: 3.91 versus 3.95), it may be deduced from the characteristic patterns found in Table 3.3 ((1) fallacies in a scientific discussion context are found to be less reasonable than those in the other two discussion contexts, and (2) there was no further discrimination between these last two contexts) also manifest themselves in this study, even though the nature of the standpoint is kept under control.

So far the results are entirely encouraging: The results from the earlier *ad hominem* studies can of course all be replicated. The most significant finding with

Table 3.11 Average reasonableness score for *ad hominem* fallacies in the domestic and political domains (group I), and in the political and scientific domains (group II) (D = domestic domain; P = political domain; S = scientific domain)

Group I (n = 38)	D 4.01 (0.61)	P 3.91 (0.55)
Group II (n = 37)	S 3.31 (0.76)	P 3.95 (0.57)

Table 3.12 Average reasonableness score for *ad hominem* fallacies for each type of standpoint (Des = descriptive; Eva = evaluative; Appeal = appealing) and for each type of discussion context (D = domestic domain; P = political domain; S = scientific domain)

	Group 1				Group 2		
	Des	Eva	Appeal		Des	Eva	Appeal
D	4.00 (0.72)	4.00 (0.73)	3.93 (0.85)	P	3.89 (0.69)	3.86 (0.74)	4.11 (0.69)
P	3.98 (0.69)	3.79 (0.75)	3.97 (0.62)	S	3.46 (0.76)	3.31 (0.93)	3.17 (0.90)

a view to the alternative explanation constitutes, however, the fact that the variable "nature of the standpoint" from a statistical viewpoint does not exert any demonstrable influence on the reasonableness judgments, either separately (for group I: $F = 0.21$; n.s.; group II: $F = 0.20$; n.s.), or in combination with one of the other factors (see Table 3.12).[33]

The data therefore indicate that an alternative explanation of the research results in terms of "nature of the standpoint" is also not plausible.

3.5.5 External Validity

All the results presented so far invariably came from secondary (high) school students. In our opinion it is improbable (but not excluded) that non-students would judge differently on the unreasonableness of the *ad hominem* fallacies investigated in this chapter. Should such be the case, despite our positive conviction to the contrary, then the external validity of all the research presented would be at stake.

In order to gain some insight into the degree of external validity, the *ad hominem* study was replicated with a sample of non-students. This sample consisted of 17 members of staff of the ING Bank in Amsterdam. These employees all fulfilled management functions within this banking concern; the age of these managers ranged from 28 to 59, with an average of 38. To facilitate the comparison between the stu-

[33] The data within the two groups were analyzed independently of each other – with of course the exception of the statistical test of the difference between both groups. In each of both the groups a statistical model was adopted in which the random factor Replication was nested within the interaction of Type discussion context × Type fallacy × Nature of the standpoint and was crossed with the random factor Respondent. The resulting F's are of course again quasi-F's in which both the numerator and the denominator consist of composites of MS terms. Thus the quasi-F with which the influence of the fixed factor "Nature of the standpoint" is tested consists of a numerator with the composite MS (Nature of the standpoint) + MS ((Replication within Type discussion context × Type fallacy × Nature of the standpoint) × Respondent), and of a denominator with the composite MS (Replication within Type discussion context × Type fallacy × Nature of the standpoint) + MS ((Nature of the standpoint) × Respondent).

Table 3.13 Comparison of average reasonableness score for three types of *ad hominem* fallacies, for each type of discussion context, for 2 groups of respondents (S = students, M = ING managers)

	Direct attack	Indirect attack	*Tu quoque*
Domestic context			
S	3.29 (0.88)	4.08 (0.88)	4.92 (0.86)
M	2.30 (0.81)	2.97 (0.92)	4.03 (0.89)
Political context			
S	2.89 (0.93)	4.19 (0.90)	4.77 (0.82)
M	2.38 (0.79)	3.48 (0.85)	4.33 (0.81)
Scientific context			
S	2.57 (0.81)	3.43 (0.84)	3.66 (0.86)
M	2.29 (0.84)	3.04 (0.81)	2.91 (0.88)

dents and managers, the results of both our students (derived from Table 3.3) and those of the managers are shown in Table 3.13.

The answer *patterns* that the ING managers exhibit are in agreement with those of our students. Just as for the students, fallacies are again deemed substantially more unreasonable than non-fallacies (3.08 (0.78) versus 5.44 (0.86)). And again, for example, the fallacies committed in a scientific discussion context are judged most strictly by the ING managers. And also the order in the judgment of the three separate fallacies is in both groups of respondents exactly the same: The managers also find the direct attack least reasonable, followed by the indirect type and finally the *tu quoque*. And the managers, exactly as the students, only deem the *tu quoque* variant an unreasonable move in a scientific discussion context.

But there are also evident differences between the groups of respondents. Note that the ING people systematically judge each fallacy somewhat more critically, irrespective of its nature, and irrespective of the type of discussion context. A higher education and/or a higher age are apparently coupled with a more critical attitude to discussion. As far as the external validity is concerned, the aforementioned results are all in all reassuring: Although the ING managers judge more critically, their answer patterns are identical to those of the students.

3.6 Conclusion

The conceptions of normal judges of the reasonableness of discussion contributions do not appear to be a chaotic, fickle whole. On the contrary, there is a structure and system that is to a certain level theoretically predictable. Summarizing briefly, the results of our first experimental research in the context of the research project *Conceptions of Reasonableness* lead to the following, cautious conclusions – conclusions that of course must be confirmed in further research:

(1) In their judgment of the reasonableness of discussion moves, normal judges make a sharp distinction between discussion moves with an *ad hominem* fallacy and discussion moves without such a fallacy and they do this is a relatively consistent manner. Discussion moves with an *ad hominem* fallacy are, *ceteris paribus*, often considered more unreasonable than discussion moves without such fallacies.
(2) In their judgment of the reasonableness, normal judges make a consistent distinction between the three variants of the *argumentum ad hominem*, i.e. the direct personal attack, the indirect personal attack and the *tu quoque* variant. The direct attack is, *ceteris paribus*, considered to be the least reasonable, after this the indirect attack and finally the *tu quoque* variant.
(3) Normal judges find *ad hominem* fallacies in a scientific exchange of opinion to be much more unreasonable than in other types of discussions. The *tu quoque* variant is only judged as an unreasonable move in a scientific discussion context.
(4) Normal judges justify their judgments on the unreasonableness of the fallacies investigated not so much in terms of politeness as based on the fact that such unsound discussion moves are in their opinion inadequate from an argumentative point of view.
(5) Normal judges appear hardly to be able, even when they are significantly steered and assisted, to formulate a (normative) discussion rule at a somewhat abstract level.

All these findings are in agreement with the previously formulated hypotheses. Given the previously specified restrictions on an experimental design and given the tentative nature of the formulated conclusions, these findings confirm our general expectation that the pragma-dialectical rule for the confrontation stage is in agreement with the norms that normal ordinary arguers apply, or say to apply, when they judge the reasonableness of discussion moves. The question of whether conventional validity may be attributed to this rule may, however, only be answered in a more adequate manner when other violations of this rule – other than by personal attacks – have been investigated.

In the following chapter we give a summarizing overview of a series of empirical studies, the design of which is for the most part identical to the present, exemplary intended experiment, but in which other violations of the rule for the confrontation stage are at issue.

Finally: Whether and to what extent our respondents who acted as the judges in this experiment actually apply their verbally expressed reasonableness norms in their own argumentative practice is a completely different question over which this experiment is able to provide no definitive answer.

Chapter 4
The Confrontation Stage: The Freedom Rule

4.1 The Freedom Rule

In October 2004, there was a national uproar in the Netherlands about a proposal of Nijmegen's town council *GroenLinks* Party to ban the so-called SUVs (Sports Utility Vehicles), usually four-wheel driven off-road vehicles of generous proportions, from Nijmegen's town centre by making it impossible for them to park there. Led by Mr. Van Eck, spokesman for the *GroenLinks* Party, Nijmegen's municipal executive was called upon to amend local parking by-laws so that a parking ban would be enforced from now on in Nijmegen so that these – in the eyes of the *GroenLinks* Party – environmental polluting, gas-guzzling, and for pedestrians and cyclists, perilous vehicles (also popularly known as "Chelsea tractors," i.e. cars wider than 1.85 m) would henceforth no longer be allowed to park in Nijmegen. The motion, unknown in the Dutch political set-up, was passed by the town council, but Nijmegen's municipal executive had misgivings about the juridical feasibility and casted the motion aside. In letters sent to readers' columns in national newspapers reactions to the proposal were furious:

> Now our jealous little nag Mr. Duyvendak [Member of Parliament of the *GroenLinks* Party and ex-chairman of the Dutch Environmental Protection] and his henchmen from Nijmegen finally get their own way: "They are dangerous anti-social wagons," according to crybaby Mr. Van Eck. Where do they get the presumptuousness from to label everyone who can afford a larger or more expensive car as anti-social? Let the whole bunch of them emigrate to Cuba or North Korea: There they can, according to the dictatorship in force, determine what people can or cannot spend their hard-earned money on. (A. Krielen in *Meningen; Metro* 23 October 2004)

The infuriated writer of this letter completely ignores the intrinsic merits of the proposal put forward and the arguments presented – furthermore and without further ado he assumes that every reader knows of the, in his eyes, abject proposal and its background. The space allocated to him is used only to let off steam and to nip a possible discussion in the bud, via personal attack.

The infringement of the personal freedom of the opposing party in an attempt to eliminate them as a serious discussion partner is carried out here by bringing the integrity, the expertise, impartiality or creditability of the opposing party (the whole "bunch") into discredit. Such *ad hominem* attacks that are not aimed at the intrinsic

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merits of a standpoint or the doubt of the opposing party but are related to their person constitute a violation of the pragma-dialectical freedom rule ("Discussants may not prevent each other from advancing standpoints of from calling standpoints into question") and must therefore be regarded as a fallacy. As we have seen in the preceding chapter, ordinary arguers do not appreciate this type of discussion move. Does that also apply to other violations of the freedom rule; the *argumentum ad baculum*, the *argumentum ad misericordiam*, and declaring a standpoint taboo (or sacrosanct)? Following on from the *ad hominem* study presented in the previous chapter, this chapter contains a report of, amongst others, the seven studies in which these other violations of the freedom rule feature predominantly. For the sake of completeness, we have included the principal results of the *ad hominem* study presented in the overviews in Chapter 3.

4.2 The *Argumentum Ad Baculum,* the *Argumentum Ad Misericordiam*, Declaring a Standpoint Taboo or Sacrosanct

In each discussion stage of a critical discussion – the confrontation stage, the opening stage, the argumentation stage and the concluding stage – discussion moves may be enacted that hinder the resolution of a difference of opinion and these moves must therefore be branded as fallacies on the basis of these procedural-functionalistic reasons. A difference of opinion arises because one arguer brings forward a standpoint and the other casts this into doubt. In order to encourage resolving differences, it is imperative that these differences (can) be expressed. Only then, of course, is it possible to systematically attempt to resolve the differences. Ideally, therefore, the differences are made explicit in the *confrontation stage* that precedes the resolution process in a reasonable discussion.[1]

The freedom rule therefore means *in concreto* that no limitation whatsoever will be imposed on the standpoints that may be brought forward or equally on the persons that bring forward a standpoint. If this rule is violated, then in the first case, restrictions concerning content are imposed and, in the second case, such as in the case of personal attacks, the personal freedom of the opposing party is infringed.

But it can get even worse than personal attacks. The ultimate way of hindering the opposing party bringing forward a standpoint or casting doubt is to make it literally impossible for them to speak. The most effective way of achieving that objective is to knock-out your opponent using sheer brute force, but sometimes other, more subtle methods can be equally effective; just the threat of violence is often sufficient

[1]The fallacies that are characteristic for the confrontation stage and that therefore fall within the scope of the freedom rule (for example, *ad hominem* fallacies) can, in practice, also enter into the discussion later, for example in the middle of the argumentation stage.

and threatening using other means can also prove to be very effective. This is an example taken from the column *Meningen* from *Metro*:

> I read the article about Schwarzenegger this week. His wife refused to have sex with him for two weeks because she did not agree with what he had done. Would total abstinence from sex (on women's part) finally set men thinking? As long as there is war, we do not want sex? Perhaps then would world peace truly be closer. . . .
>
> (M. Eyck in *Meningen*; Metro 23 October 2004)

Traditionally this type of fallacy is called the *argumentum ad baculum* (argument of the stick) and this fallacy was the focal point in our second empirical study (following the first, *ad hominem*). In this study (hereafter referred to as *ad baculum-phys*) two specific variations of this fallacy (appeal to force) were presented to the respondents for assessment: One variant in which was threatened with physical violence and another in which the opposing party was "merely" threatened with the prospect of non-physical consequences. Here follows an example of each, originating from the material presented to the respondents:

A: I think you should increase my allowance; all my friends get a lot more than I do.
B: If you nag about that once more, I'll box your ears.

A: I think it would be better to marry with a prenuptial agreement; if the business goes bankrupt at least they cannot seize everything.
B: If we can't get married without a prenuptial agreement, fine, but as far as I'm concerned we'll not be sharing the bedroom either.

Threatening amounts to putting your opponent under pressure. Usually, it does not actually happen, but is merely insinuated in possible unpleasant outcomes for the opposing party if the speaker does not get his or her own way. This indirectness with which threats are usually brought forward and whereby often a glimmer of reasonableness is kept up by giving explicit assurances that there is no intention whatsoever to exert any pressure ("I'll leave it entirely up to you, but . . .", "Of course, it's up to you to decide what to do, but. . .".) while the indirect threat holds the prospect of ominous events that are portrayed as an inevitable act of fate for which the speaker himself takes no responsibility at all ("but of course I cannot answer for . . .") formed a point of special interest in a follow-up study, the third in a series (hereafter referred to as *ad baculum-ind*). In that study, direct variants of the *argumentum ad baculum* in which interlocutors were openly threatened and without beating about the bush, were compared with indirect variants (the terms "direct" and "indirect" are used here in a theoretical neutral sense). Here follow two examples taken from the material (the first example concerns the direct variant, the second one the indirect variant):

A: Mum, I think you should go on a diet; you really are becoming very fat now.
B: Watch your words! Otherwise I will box your ears.

A: I am of the opinion that women are not good drivers. Accident statistics show that unequivocally.
B: Naturally, you're entitled to your opinion, but have you considered your own safety on the road? Of course, I can't keep all these furious feminists behind the wheel in check.

A somewhat more refined way of putting the opposing party under pressure is to work on their feelings. If the opposing party rejects the standpoint, the person who brings forward that standpoint gets hurt or feels terribly disappointed ("For God's sake, how could you give me an unsatisfactory grade for my thesis? I've worked on it for weeks and weeks!"). Due to the threat that this emotional blackmail emanates (appeal to pity), the opposing party is maneuvered into an awkward position: If he sticks to the original standpoint, then he will be quickly labeled as a heartless person who is insensitive to the needs of his fellow-men; however, if he withdraws his standpoint as a direct result of the emotional blackmail, then he could be accused of being "soft."

Whichever course of action the discussant takes when put under emotional pressure, he or she is no longer free to cast doubt on the standpoint. Because this fallacious technique takes advantage of the compassionate feelings of the other, this violation of the freedom rule is referred to as *appeal to pity* (Latin title: *Argumentum ad misericordiam*). The working of this *argumentum ad misericordiam* is aptly described by the Dutch columnist Tamar:

> A large percentage of women are, when it boils down to it, anti-intellectual, think that conflicts are improper, that quarrels are not allowed and that arguments are inappropriate. As a last resort these women often cry, which I think is a very mean weapon, but I always think of that when it is too late, initially I am shocked, I feel guilty and restrain myself, which was the whole point of the exercise. Crying is impressive. (*Vrij Nederland*, 12 Nov. 1983)

In two independent studies, the fourth and the fifth ones in the series, the reasonableness or unreasonableness of this fallacy was investigated (hereafter referred to as *ad misericordiam-I* respectively *ad misericordiam-II*). There follows an example of a fragment that had to be judged on reasonableness:

A: I really do not think your promotion can go ahead; your research is well below par.
B: You cannot do that to me; I have already invited my entire family and all my friends.

The types of fallacies discussed so far can be found in almost every traditional, more or less canonical list of fallacies – where they usually fall under the heading "relevance fallacies" – but that cannot be said for the fallacies of declaring a standpoint taboo or sacrosanct: These two types of fallacies are typically "generated" by the pragma-dialectical discussion rules.

As already stated, the freedom rule can also be violated by imposing intrinsic restrictions on the nature of the standpoints as a result of which free, open and critical discussion will be blocked. Such intrinsic restrictions could imply that certain standpoints in the discussion could be declared taboo ("Homosexuals marrying in church? On no account will I even talk about something as noxious as that!") or, quite the reverse, that certain standpoints are declared sacrosanct resulting in the other party not being allowed to cast doubt on them ("Parliamentary democracy? Now, as far as I am concerned that is not open to discussion!").

Standpoints are made totally immune to criticism due to these fallacies. Here follows an example taken from the study into the fallacy of declaring a standpoint taboo, the sixth in the series:

A: I am of the opinion that our university should devote more attention to cloning humans. Otherwise we will lag behind the developments in America.
B: Enough of that! It is taboo for us to clone.

The fallacy of the "declaring a standpoint sacrosanct" was the theme in our seventh and last study into the violations of the freedom rule. The fallacy of declaring a standpoint sacrosanct in a discussion is actually a "reversal", a mirror image, of what happens with declaring a standpoint taboo: In the first case standpoints are not allowed to be discussed due to their "positive nature," in the second case they are not allowed to be discussed due to their "negative nature." Nevertheless the consequences for the resolution process are in both cases exactly the same: The standpoint (positive or negative) may simply not be discussed. There follows an example taken from our own material:

A: I am of the opinion that Popper is the greatest philosopher of all time; his work is still being used today.
B: Perhaps he was the best in his time, but surely not any more? After all, most of his theory has been refuted for a long time now.
A: Oh, you must be joking! As far as I am concerned nobody can hold a torch to Popper.

With regard to the "fallacious" status of the discussion moves described here there are, incidentally, strong differences of opinions in the literature pertaining to fallacies. Even the seemingly obvious "dubious" status of the "fallacy of the stick" is disputed by some fallacy theorists (see, amongst others, the apodictical title of Gabbay and Woods' article (1999): "*Ad baculum* is not a fallacy!"). Considered from a pragma-dialectical perspective, the fallacies discussed here are without exception unsound discussion moves because there is always a violation of the same discussion rule: Discussants may not prevent each other from advancing standpoints or from calling standpoints into question.

4.3 Judging About the Reasonableness or Unreasonableness of Discussion Moves with and Without Violation of the Freedom Rule

The set-up of the seven studies into the reasonableness or unreasonableness of the *ad baculum* fallacies, the *ad misericordiam* fallacies, the fallacy of declaring a standpoint taboo and declaring a standpoint sacrosanct was for the most part identical to that of the *ad hominem* study. On each occasion 48 fragments were presented and in 36 instances the antagonist violated the freedom rule (with an *ad hominem* fallacy, an *ad baculum* fallacy, an *ad misericordiam* fallacy or a fallacy of declaring a standpoint taboo or sacrosanct). In the remaining 12 cases the freedom rule was not violated and there was indeed sound argumentation.

In each of the seven experiments, three types of fallacies were studied; these were each represented by 12 dialogue fragments. Two of the three types of fallacies examined in the seven studies were kept "constant" for methodical reasons, namely the *abusive* variant and the *tu quoque* variant of the personal attack. Due to the consistent results of our very first study (the *ad hominem* study described in the previous chapter) we know what judges think about the reasonableness or unreasonableness of these two variants: Irrespective of the nature of the type of discussion in which these fallacies were presented (in this case a scientific discussion, a political debate and a domestic discussion) the judges consistently deemed the direct attack less reasonable than the *tu quoque* variant. In the seven studies which are a continuation of the *ad hominem* study this empirically established ordinal classification of "reasonableness" between the two variants of the *ad hominem* fallacy acts as a *base-line* that functions as a reference point for comparisons when judging the reasonableness or unreasonableness of *ad baculum, ad misericordiam* and the fallacy of declaring a standpoint taboo. In other words, in the seven studies where each time a "new" not yet studied fallacy was the focal point, the direct attack and the *tu quoque* variant of the *argumentum ad hominem* would act as the gatekeeper of the validity of the test. A similar set-up also offers the possibility of replicating the results found previously – at least as far as they relate to the two variants of the *ad hominem* fallacy that were studied – which of course opens up the possibility of standardization.

The seven studies which are reported on in this chapter differ only in the third type of fallacy that was manipulated. Just like in our first study (the *ad hominem* study) the three variants of the personal attack all featured predominantly (the direct personal attack, the indirect attack, and the *tu quoque* variant) in the second study (the *ad baculum-phys* study) the physical versus the non-physical variants of the *argumentum ad baculum*, and – once again – the direct personal attack and the *tu quoque* variant, and so forth.

In order to exclude alternative explanations, once again the 48 dialogue fragments, both the sound and unsound, were constructed according to the same fixed pattern. Possible differences in reasonableness or unreasonableness between the sound and unsound discussion moves could not thereby be ascribed to differences in "appearance" or differences in verbal realization of these two types of discussion moves. Both types of dialogue fragments, the sound as well as the

unsound, repeatedly consisted of taking two turns, one by speaker A and one by speaker B (with the exception of the last study into the fallacy of declaring a standpoint sacrosanct: The sound and fallacious dialogue fragments which played a part in that study consisted here not of two, but of three turns: A brings forward a standpoint, B responses to this with a divergent standpoint along with an argument to support it to which A responses, for example, by declaring the standpoint sacrosanct making it no longer under discussion). To prevent the source possibly influencing the judgment of reasonableness, the identity of speaker A and B in these studies was also left undetermined in all cases. The contribution of A consisted each time, at least in the first six studies, of bringing forward a standpoint, followed by an argument to support it. To keep nuisance variables under control the standpoint was, in all cases, marked by means of a standpoint indicator ("I think that", "in my opinion" and so on). This manner of presentation of argumentation was retrogressive (always referred back): First the standpoint, then the argument. All fragments were once again presented in a well-defined discussion context: Domestic context, political debate, scientific discussion.

B's contribution always consisted of a response to A's standpoint, either with a fallacy or with sound argumentation. When casting doubt on A's standpoint, B's response, where applicable, made use of the indicators of the *argumentum ad hominem* sort, such as "the real reason is," "you have to be consistent" and "am I supposed to believe that?" (Van Eemeren & Grootendorst, 1996, pp. 93–98). B's response in the case of an *ad baculum* was provided with an indicator of a threat, for example: "If ..., then [threat]" or "otherwise [threat]." At an *ad misericordiam,* B's response was provided with an indicator of emotional pressure such as "you cannot do this to me," "that would be devastating for me," and by the fallacy of declaring a standpoint taboo one of the indicators used was "shut up!" For each fragment, the respondents were asked exactly the same as in the *ad hominem* study: "How reasonable do you think B's response was?" Once again the respondents could make their judgments known on a 7-point scale that ranged from "very unreasonable" to "very reasonable."

In order to exclude a plausible alternative explanation in terms of "the order of presentation" (an explanation which is plausible, for example, if all 36 unsound fragments were presented first and then the 12 sound fragments), the fallacious fragments were randomly mixed with the non-fallacious fragments. In order to exclude a plausible alternative explanation in terms of "schooling" (fallacies could be deemed unreasonable by the respondents based solely on the fact that in education special attention is paid to the dubious character of these "false" moves), in all cases the 48 dialogue fragments were presented to "naive" respondents: 5th and 6th year secondary (high) school students (Dutch VWO level) who had never enjoyed specific education on argumentation theory. Checks afterward revealed that the respondents concerned had never even heard of the term "fallacy."[2]

[2]A large number of alternative explanations will, in practice, be excluded by the chosen design. In all six studies use was made of a repeated measurement design, in combination with a multiple message design.

The question we initially wanted to answer on the basis of the results obtained is: Do ordinary arguers think that the discussion moves in which there is a violation of the freedom rule, (which are therefore fallacious) are less reasonable than the discussion moves in which the freedom rule is not violated? Table 4.1 depicts all the relevant information needed to answer this question. It shows, per study, respectively the size of the sample survey (n), the average judgment of reasonableness for the fallacies (k = 36) and the non-fallacies (k = 12) with the standard deviation between parentheses.

In each of the seven studies we found the same (in a statistical sense very reliable) pattern: Each time the fallacies were deemed to be less reasonable than the non-fallacies (the (quasi-) F ratios, with one exception, were in all cases statistically significant).[3] It may be deduced from the effect sizes that the differences found may

Table 4.1 Average reasonableness score for discussion moves with and without a violation of the freedom rule, per study; n = number of respondents

Type of study	n	Violation of the freedom rule	No violation of the freedom rule
Ad hominem	92	3.75 (0.46)	5.29 (0.64)
Ad baculum-phys	35	3.35 (0.46)	5.64 (0.39)
Ad baculum-dir	35	3.27 (0.48)	5.41 (0.62)
Ad misericordiam-I	21	3.86 (0.53)	5.06 (0.42)
Ad misericordiam-II	57	3.51 (0.51)	5.20 (0.41)
Declaring a standpoint taboo	52	3.33 (0.45)	5.14 (0.47)
Declaring a standpoint sacrosanct	50	3.52 (0.45)	5.67 (0.40)

[3] In the statistical testing of the differences in reasonableness between fallacious and non-fallacious discussion moves each of the three types of fallacies (that in a study each were represented by 12 dialogue fragments) were contrasted with the 12 non-fallacious fragments, thereby leaving aside the type of discussion domain. All (quasi-) F's appeared significant, even after applying the Bonferonni criterion (however there is one notable exception: The *tu quoque* fallacy and the *ad misericordiam*-I study were found just as reasonable as the non-fallacious moves. This finding was one of the reasons why the study concerned was replicated).

Ad hominem study: direct attack: $F(1,34) = 134.38$; ES = 0.47; indirect attack: $F(1,27) = 34.78$; ES = 0.21; *tu quoque*: $F(1,26) = 11.78$; ES = 0.09.

Ad baculum-phys study: *ad baculum*: $F(1,33) = 92.23$; ES = 0.57; direct attack: $F(1,40) = 98.02$; ES = 0.52; *tu quoque*: $F(1,29) = 13.17$; ES = 0.14.

Ad baculum-dir study: *ad baculum*: $F(1,24) = 20.20$; ES = 0.29; direct attack: $F(1,25) = 31.35$; ES = 0.36; *tu quoque*: $F(1,25) = 6.06$; ES = 0.09.

Ad misericordiam-I study: direct attack: $F(1,41) = 26.81$; ES = 0.24; *ad misericordiam*: $F(1,41) = 9.84$; ES = 0.13; *tu quoque*: $F(1,33) = <1$.

Ad misericordiam-II study: direct attack: $F(1,32) = 80.02$; ES = 0.41; *ad misericordiam*: $F(1,28) = 32.09$; ES = 0.29; *tu quoque*: $F(1,28) = 12.20$; ES = 0.09.

Declaring a standpoint taboo: $F(1,37) = 82.02$; ES = 0.46; direct attack: $F(1,36) = 121.39$; ES = 0.49; *tu quoque*: $F(1,28) = 10.29$; ES = 0.08.

Declaring a standpoint sacrosanct: $F(1,32) = 94.71$; ES = 0.52; direct attack: $F(1,42) = 104.75$; ES = 0.43; *tu quoque*: $F(1,26) = 10.37$; ES = 0.11.

be invariably called "notable." Respondents discriminate strongly between fallacies and non-fallacies.

Not only in a relative sense, but also in an absolute sense the judgments of the respondents about the dialogue fragments differ as to whether or not there was a violation of the freedom rule: The sound argumentations were on average judged to be "fairly reasonable," on the other hand, the unreasonable argumentations were judged to be "fairly unreasonable" (N.B. scale point 4 forms the neutral point of the applied Likert scale "neither reasonable, nor unreasonable"). This consistent information gives, assuming for a moment that plausible alternative explanations have been excluded, a particularly strong indication of the fact that the fallacies which fall within scope of the freedom rule were judged as unreasonable discussion moves by the naive respondents.

Why do ordinary arguers deem these fallacies to be unreasonable and the sound discussion moves to be reasonable? How can this difference be explained theoretically? Our tentative explanation, partially due to Grice's insights into the "logic" of conversation and the prevailing maxims, can perhaps be found in the fact that (1) a discussion is a prototypical type of conversation that is based on mutual cooperation of the discussion partners, a conversation that is purposeful and has a rational character; (2) ordinary arguers who participate in this type of conversation, at least up to a point, are themselves more or less aware of the specific character of this type of conversation and, at least intuitively, are more or less aware of the prescriptive dimensions of discussions and arguments and therefore of the conditions which have to be fulfilled, if that purposeful and rational activity is to lead to a resolution of the difference of opinion. In the third stage of this explanation we assume that (3) ordinary arguers also expect from the other participants that they also make similar assumptions regarding this type of conversation and they also expect that those other participants in making their contributions to the conversation will attempt to meet the conditions for this specific type of conversation. It is those implicit mutual expectations that constitute together the rights and obligations to which the discussion partners have to conform should they decide to resolve a difference of opinion via a discussion. Should this (tentative) explanation have any validity, then this means that the conventional validity of the freedom rule, at least up to a point, can be ascribed to its problem validity.

4.4 Results

In the analysis of Table 4.1, the specific type of fallacy committed in the fragments presented for assessment has largely been left out. Did the respondents also discriminate between the fallacies studied? Did they find, for example, the *abusive* variant of the *argumentum ad hominem* less reasonable than the *tu quoque* variant – the two variants acting as gatekeeper of the validity of the test were also included in each of the six subsequent studies?

From the results (see Table 4.2, under F and ES) it appears that the respondents discriminate, in all cases, in a statistical reliable manner between the three fallacies

Table 4.2 Average reasonableness score for different types of rule violations, per study (F = overall test for differences between the three types of fallacies, with (between parentheses) the corresponding number of degrees of freedom; dir. = direct attack; ind. = indirect attack; *tu q.* = tu quoque; ES = effect size, attached to F; F1 = first *a posteriori* Helmert contrast between the first type of fallacy versus the second and third; F2 = second *a posteriori* Helmert contrast between the second and third type of fallacy)

Type of study				F	ES	F1	F2
Ad hominem	dir.	ind.	*tu q.*				
	2.91	3.89	4.45	25.22[1]	0.16	43.33[1]	6.42[2]
	(0.64)	(0.57)	(0.60)	(2,33)			
Ad baculum-phys	bac.	dir.	*tu q.*				
	2.48	3.03	4.56	22.17[1]	0.27	21.89[1]	22.23[1]
	(0.62)	(0.71)	(0.67)	(2,41)			
Ad baculum-dir	bac.	dir.	*tu q.*				
	2.79	2.90	4.12	6.97[1]	0.11	5.06[2]	10.89[1]
	(0.60)	(0.66)	(0.69)	(2,32)			
Ad misericordiam-I	dir.	mis.	*tu q.*				
	3.15	3.88	4.56	8.07[1]	0.12	12.29[1]	3.72[3]
	(0.80)	(0.78)	(0.70)	(2,53)			
Ad misericordiam-II	dir.	mis.	*tu q.*				
	2.93	3.32	4.29	8.88[1]	0.11	9.25[1]	8.53[1]
	(0.73)	(0.72)	(0.68)	(2,34)			
Declaring a standpoint taboo	tab.	dir.	*tu q.*				
	2.79	2.83	4.37	33.13[1]	0.28	13.30[1]	36.07[1]
	(0.66)	(0.57)	(0.66)	(2,41)			
Declaring a standpoint sacrosanct	sac.	dir	*tu q.*				
	2.68	3.23	4.65	24.51[1]	0.21	25.13[1]	23.93[1]
	(0.68)	(0.74)	(0.60)	(2,40)			

[1]$p<0.01$; [2]$p<0.05$; [3]$p<0.10$.

studied – considering the effect sizes – albeit less pronounced than between sound versus unsound argumentation.[4] The question we want to answer on the basis of the results in Table 4.2 is: How did the respondents discriminate between the fallacies?

Table 4.2 shows, per study, the three types of fallacies ordered according to the level of unreasonableness: In the first study (the *ad hominem* study), for example, the direct attack is deemed to be the least reasonable, followed by the indirect, and lastly the *tu quoque* variant; in the second study (the *ad baculum-phys* study) the *argumentum ad baculum* is deemed to be the least reasonable, followed by the direct attack and then the *tu quoque* variant, and so on. The test statistic F1 (once again

[4]For the *ad hominem* study and the two *ad baculum* studies an *a priori* test was the most logical choice and not an *a posteriori* test. After all, in these three studies specific hypotheses were set up about the order of ranking in reasonableness of the three types of fallacies studied. These hypotheses were impossible in the *ad misericordiam* study and in the study into declaring a standpoint taboo. Due to reasons of consistency, all the contrasts in Table 4.2 were therefore carried out *a posteriori*.

a quasi-F) is about the contrast between, on the one hand, the first mentioned, thus deemed the least reasonable, type of fallacy versus the two other types of fallacies, whilst the next F ratio (F2) is about the difference between the last two fallacies mentioned. For the *ad hominem* study, F1 (the size of 43.33) is therefore relevant to the question if the respondents discriminate statistically significantly between the direct personal attack, on the one hand, and the indirect personal attack, on the other hand, or the *tu quoque* fallacy (which is what they appear to do), the second F ratio (in this case 6.42) is relevant to the question if the respondents deem the direct attack in a statistically significant sense less reasonable than the *tu quoque* variant (which is also what they appear to do, although – considering the effect sizes – the difference encountered is less pronounced than that between the direct attack on the one hand and the indirect attack and *tu quoque* variant on the other hand.)

Even though there are also unequivocal differences between the seven studies, however small, in judging the unreasonableness of the direct personal attack and the *tu quoque* variant, we nevertheless always find the same consistent pattern: The direct attack was consistently found to be less reasonable than the *tu quoque* fallacy.

From Table 4.2 it can be deduced, with due caution, that an order of ranking in unreasonableness is in a way also intuitively plausible: The *argumentum ad baculum* was found to be the most unreasonable, then declaring the standpoint taboo or sacrosanct, followed by the direct personal attack, then the *argumentum ad misericordiam* and the indirect personal attack, and finally the *tu quoque* fallacy. For all those who worry about the abject social phenomenon in this day and age which is usually referred to in terms such as "irrational violence" or "meaningless violence," the order of ranking found here whereby the *argumentum ad baculum* is unmistakably seen as the most extreme form of unreasonableness may be considered a reassuring result. That the *tu quoque* fallacy marks the opposite end of the reasonableness scale, unlike the remaining fallacies, is generally speaking, considered to be a reasonable move, is perhaps understandable if it can be assumed that ordinary arguers expect from each other a certain consistency in words and deeds.

From the data presented in Table 4.2 it may not be concluded that the *tu quoque* fallacy is also considered by the respondents to be a sound, admissible discussion move under all circumstances. On the contrary, if one includes the context in which the discussion takes place in the analysis (and the variable "discussion context" which up to now had been left out), the *tu quoque* fallacy appears in each of the seven studies to be judged as a (quite) unreasonable move, at least when this moves takes place in a scientific discussion (in the seven studies this amounted to a judgment of respectively 3.66 (0.86), 3.78 (0.97), 3.22 (0.83), 3.62 (1.04), 3.71 (1.01), and 3.77 (0.91) and 3.83 (0.89)).

4.5 Politeness as an Alternative Explanation

One of the most succinct alternative explanations for the results in Table 4.1 (and incidentally also those in Table 4.2) is the variable "politeness": Respondents think, for example, that *ad baculum* fallacies are not particularly unreasonable due to the

fact that these are unsound forms of argumentation, as well as the fact that with these types of threats the precarious social balance between the discussants would be extremely lopsided. Threatening using other means often leads for example to a severe loss of face for the person spoken to and rapidly creates an atmosphere in which hostility and animosity monopolize the conversation. And what applies to the *ad baculum* fallacy actually applies to all fallacies which fall within the scope of the freedom rule.

Exactly like in the study into the reasonableness or unreasonableness of the three variants of the *argumentum ad hominem*, once again the 48 dialogue fragments presented to the respondents for assessment were in each case offered in a concrete, well-written discussion context: A political debate, a discussion at the breakfast table or in a scientific context. As was explained in the previous chapter, with the assistance of these contexts, it is possible to discriminate on statistical quantitative grounds between two competing explanations: (1) Respondents base their judgments of reasonableness of the fallacies primarily on the politeness or impoliteness of the moves concerned (2) respondents base their judgments of reasonableness primarily on the, in an argumentative sense, unsound nature of the moves concerned. After all, if in their assessment of the reasonableness or unreasonableness of discussion contributions the respondents are initially sensitive to the "politeness value" (the politeness character) of an argumentative contribution then we could expect that they would (1) find fallacies in the domestic domain more reasonable than the same sort of fallacies in the other two domains and (2) make no further distinction in reasonableness or unreasonableness between fallacies in a political debate or in a scientific discussion. If, however, the respondents in their judgments of the reasonableness or unreasonableness of discussion contributions are primarily alert to "the argumentative value" (the soundness character) of an argumentative contribution, then one would expect that they (1) would consider fallacies in a scientific discussion less reasonable than fallacies in the two other domains and (2) would make no further distinction in reasonableness or unreasonableness between fallacies in a domestic or political discussion context.

The question we wish to raise, bearing in mind the suggested alternative explanation, is: How do the respondents discriminate between the three types of discussion contexts? The statistics that are relevant in order to be able to answer this question are summarized in Table 4.3. Furthermore, the second F ratio (F2) relates to the difference between the fallacies in the scientific domain, on the one hand, and, on the other hand, the fallacies in the two other domains, whilst with the aid of the first F ratio (F1) the differences in unreasonableness are tested between fallacies in a domestic context on the one hand and a political context on the other hand.

From the results in Table 4.3 it appears that the fallacies committed in a scientific context were found to be the least reasonable: The tests in which the average judgments of reasonableness in a scientific discussion context were compared with the average judgments in a political or a domestic discussion context are, generally speaking, statistically significant (with the exception of the study in which the fallacy of declaring a standpoint taboo features predominantly, where the test

Table 4.3 Average reasonableness score for fallacious discussion moves in the three types of discussion contexts (D = domestic context; P = political context; S = scientific context), per study (F1 = first *a priori* Helmert contrast between D and P; F2 = second *a priori* Helmert contrast between S versus D and P)

Type of study	D	P	S	F1	F2
Ad hominem	4.09	3.94	3.22	0.45∗	16.88[1]
	(0.62)	(0.66)	(0.61)	(1,35)	(1,35)
Ad baculum-phys	3.55	3.62	2.89	0.05*	6.69[2]
	(0.68)	(0.50)	(0.56)	(1,34)	(1,34)
Ad baculum-dir	3.55	3.44	2.82	0.08*	4.37[2]
	(0.83)	(0.70)	(0.57)	(1,33)	(1,33)
Ad misericordiam-I	4.07	4.09	3.42	0.01*	5.62[2]
	(0.62)	(0.60)	(0.74)	(1,41)	(1,41)
Ad misericordiam-II	3.85	3.62	3.08	0.50*	5.42[2]
	(0.60)	(0.58)	(0.73)	(1,32)	(1,32)
Declaring a standpoint taboo	3.45	3.43	3.11	0.01*	2.43∗
	(0.57)	(0.52)	(0.61)	(1,34)	(1,34)
Declaring a standpoint sacrosanct	3.99	3.60	2.97	1.88∗	11.22[1]
	(0.63)	(0.58)	(0.68)	(1,37)	(1,37)

*Not significant; [1]$p<0.01$; [2]$p<0.05$.

statistic found had a tendency towards significance ($p < 0.25$) – we will come back to this exception in the following section). The differences in the average judgments between a political and a domestic context are in all cases statistically unreliable (all F's are after all less than 1). Summarizing briefly, it can be concluded that the results published in Table 4.3 are contrary to the suggested alternative explanation of the study results in terms of politeness. Apparently this is due to the judgment of reasonableness of the participants primarily depend on critical considerations and not so much on considerations having to do with the impolite nature of the discussion moves concerned.

4.6 The Loadedness of the Standpoint

In the individual studies specific hypotheses were tested on the order of reasonableness or unreasonableness of the three types of fallacies studied. In the *ad hominem* study, for example, it was expected that the direct attack would be considered the least reasonable, followed by the indirect attack and as last the *tu quoque* variant, an expectation that was confirmed by the data (see the preceding chapter). Similar specific hypotheses were also tested in five subsequent studies. In the *ad baculum-phys* study it was expected that the physical variants of the *argumentum ad baculum* would be found less reasonable than the non-physical variants. These findings were in accordance with our expectations (see Table 4.4):

Table 4.4 Average reasonableness score for the physical and non-physical variants of the argumentum *ad baculum*, per type of discussion context

	Physical variant	Non-physical variant
D	2.41 (0.86)	2.95 (1.16)
P	2.02 (1.31)	3.40 (1.20)
S	1.70 (0.58)	2.37 (1.30)

In the *ad baculum-dir* study it was expected that the direct variants of the *argumentum ad baculum* would be considered less reasonable than the indirect variants, an expectation that turned out to be confirmed (direct variant: 1.86 (0.66)); (indirect variant: 3.72 (0.83)).

However, not all the hypotheses and/or expectations were so splendidly confirmed. The data in Table 4.3 do after all contain an anomaly, an abnormality that can only come to light against the background of the consistency in empirical results of the investigations carried out earlier: Unlike in the remaining studies, it appears that in the taboo study the respondents do not differentiate between fallacies in a scientific context and those in the two remaining discussion contexts. On closer investigation of the data it appears that the fallacy of declaring a standpoint taboo in a scientific discussion – although it is in an absolute sense unreasonable – was found in a relative sense to be more reasonable than in the two other types of discussion. This result is inconsistent with the findings from the investigations carried out earlier: There the outcome was always the same, that fallacies are always judged the most severe in a scientific discussion (see for example, Table 3.3.) – that is just the type of discussion that comes nearest to the ideal of a critical discussion. So how can that anomaly be explained?

To exclude capitalizing on chance as a result of sampling errors, the taboo study was replicated – this produced the same results yet again. Apparently, the anomaly is no stroke of luck. A further analysis of the taboo fragments justifies the assumption that the respondents had been led by their own convictions and attitudes when judging the reasonableness or unreasonableness of these text fragments about the standpoint which A brought forward. To give the taboo fragments a "realistic" character – quite unintentional – loaded standpoints were introduced that practically everybody has strong views on.

Take for example the following dialogue fragment in which the fallacy of declaring a standpoint taboo is committed in a scientific discussion context:

A: I think white people are more intelligent than black people. Research has proved that it is true.
B: Oh stop that racist twaddle. That subject is unmentionable here!

The respondents appear to find B's reaction none the less reasonable, even though it contains a fallacy (4.27 (2.01)). However, exactly the same type of fallacy presented in a political context is virtually unanimously rejected as an unreasonable move (2.35 (1.34)):

A: Our party is of the opinion that the present policy on euthanasia is antiquated. Many people still suffer unnecessarily.
B: My party will not even discuss the matter. Euthanasia is strictly taboo for us.

If we are allowed to assume that the respondents disagree intrinsically with the standpoint brought forward by A that white people are more intelligent than black people, but agree with the point of view that our present policy on euthanasia is antiquated, then these results could theoretically be explained by the cognitive dissonance theory of Festinger (1957) and by Heider's balance theory (1958), amongst others. According to these attitude theories people strive to a psychological "balance" between their cognitions: If certain cognitions are dissonant, i.e. contradict each other, then consciously or subconsciously cognitive "repair" operations take place that cancel out the relevant contradiction. Inconsistency, incompatibility – lack of balance – these are the states of mind that a person generally tries to avoid. Applied to our material this means that the respondents who are completely at odds with the standpoint brought forward by A about the superior intelligence of white people meet with a strong dissonance when they deem B's fallacious reaction to be unreasonable. This dissonance can be "counteracted" by characterizing B's reaction as reasonable.

The relevant professional journals are full of empirical study results which support the plausibility of these expectations. We could provide many examples, but we will confine ourselves here to the most relevant ones with regard to the "perverting" influence of attitudes on the formation of a judgment on the validity and the plausibility of argumentation. Feather (1964) presented his respondents with a reasoning test which contained 40 syllogisms, 24 of which referred to religion. From this latest category, 12 had a conclusion that can be characterized as anti-religious, the other 12 had a pro-religious conclusion. From each of these 12 syllogisms, 6 were valid and 6 were invalid from a logical point of view. Here follows an example of an invalid syllogism with a pro-religious conclusion:

Tolerance in relation to human beings leads to love and harmony.
Christianity leads to love and harmony.
Therefore, Christianity leads to tolerance in relation to human beings.

The task given to the respondents was to determine if the syllogistical reasoning scheme was logically valid or invalid. A week later, the attitudes of the respondents in relation to religion were gauged by means of a questionnaire which included the religious syllogistical conclusions of the reasoning test. Respondents who have a positive attitude towards religion appear to overestimate the logical validity of invalid pro-religious syllogisms whilst they underestimate the logical validity of valid anti-religious syllogisms. Exactly the opposite trend could be observed in respondents who have a negative attitude towards religion, albeit to a lesser extent. According to the research literature, attitudes tend to influence not only the judgments of the logical validity of reasoning schemes but also the judgments of everyday argumentation. For example, Brigham and Cook (1970) asked respondents to assess the credibility and effectiveness of a number of pro-arguments and

contra-arguments in favor of, or against, segregation and integration. Subsequently, a "racial" attitude list was taken. The results of this research were pretty unequivocal: Where the respondents agreed with the arguments that support these standpoints they think these are more credible and more effective than arguments supported by standpoints they disagreed with. This also applies the other way around: Arguments that attack standpoints that people agree with are thought less credible and effective than arguments that attack standpoints that people disagree with.

Similar conclusions can be drawn on the basis of research results of Selltiz and Cook (1966), Brigham and Cook (1970) and Ellsworth and Gross (1994). According to the last-mentioned researchers "reasoning is determined by attitudes and not the other way around." When considering a standpoint about capital punishment, for example, it appears that both the supporters and the opponents let themselves be led mainly by their own attitudes and emotions rather then by factual information or rational arguments. After all, respondents, so it appears from research carried out by Ellsworth and Gross, have the tendency to subscribe to all arguments that are consistent with their own convictions: Those who are pro-capital punishment almost always agree with all the arguments in its favor – those who are anti-capital punishment almost always agree with the counter-arguments. The connection mentioned here between attitudes and judgments about the plausibility of argumentation is in the opinion of some authors (including Cook and Brigham) so potent and consistent that they plead for measuring attitudes in which "social desirability tendencies" could play an extremely distorted role indirectly rather then directly; this indirect measuring takes place by relating to the power or plausibility of the argumentation presented (for example in such issues as segregation or integration, capital punishment, euthanasia).

Going by the existing literature, it is certainly not going out on a limb to expect that attitudes also influence the judgments of the reasonableness or unreasonableness of arguments and fallacies. Should this expectation be confirmed by empirical results the anomaly in the data of the taboo study would be explained.

We have endeavored to find independent empirical support for this explanation by trying to replicate[5] a somewhat modified form of the *ad hominem* study previously carried out. Firstly, the respondents (60 5th year secondary (high) school students (Dutch VWO level)) had to judge the 48 dialogue fragments on reasonableness; two weeks later these respondents were asked to indicate to what extent they agreed or disagreed with the standpoints which A brought forward. Unexpectedly, no correlation could be found between the "attitudes" and the judgments of reasonableness of the respondents. That absence of a correlation could be explained – with hindsight – by the respondent's lack of "commitment" (binding involvement) concerning the standpoints in question. This explanation was confirmed in a subsequent

[5] After all not all dialogue fragments from the previous *ad hominem* study were equally suitable. There were dialogue fragments where the respondents could not take a clear standpoint because for example they were too specific or they expressed a purely personal opinion; these were replaced by fragments in which controversial issues came up for discussion where, in principle, a respondent has an opinion.

study in which the respondents were requested to pass judgment on the extent of their involvement in the matter in question. The majority of the respondents admitted they were not interested or hardly interested in the issues raised in the standpoints. Festinger's cognitive dissonance theory is, however, only applicable to people who have "committed" themselves in psychological sense to a certain standpoint.

Following this, new research was set-up but this time from the opposite direction. Firstly, 97 respondents (secondary 4th–6th year (high) school students (Dutch VWO level) and 5th year students (Dutch HAVO level)) were presented with a large number of topics (100 in total) and had to indicate the extent of their involvement. The 48 topics with the highest "commitment" scores were selected and these were used in the construction of new dialogue fragments. A new group of respondents (85 5th year secondary (high) school students (Dutch HAVO level) and 5th and 6th year students (Dutch VWO level)) were first asked their judgments of reasonableness and then – three months later – the extent to which they agreed with the standpoints. There was now a correlation of -0.42 (an average of the 48 dialogue fragments), which points to quite a strong relation between someone's attitude and their judgments on the reasonableness of a discussion contribution: The more a person agrees with a standpoint of the protagonist, the less reasonable is the attack of the antagonist on the protagonist of that standpoint – and the other way around: The less a person agrees with the standpoint, the more reasonable is the attack on the protagonist of that standpoint.

To be more specific: in 39 of the (in total) 48 dialogue fragments there appears to be a (statistically significant) relation between the extent in which the standpoint is agreed or disagreed with and the extent in which the arguments adduced in favor of that standpoint are regarded as reasonable or unreasonable. An example of this is given in the following fragment:

A: According to us increasing class sizes at primary school cannot do any harm, because it does not have any demonstrable effect on educational performances.
B: You have to say that, don't you! After all, your party is planning on implementing major cutbacks in education.

Of the 85 students, 61 disagree with the standpoint that A brings forward. These students rate the fallacy which B uses to attack this standpoint, on average 5.15 (thus reasonable). However, the students who disagree with this standpoint think that B's fallacy is unreasonable: 3.50. Even 9 of the 12 sound argumentations are thought to be less reasonable by the students if they attack a standpoint with which they agree. Given all this information, it can be concluded that all argumentation, whether it is sound or not, is found to be less reasonable if it goes against a standpoint with which the students agree. The opposite also applies: Argumentation, sound or otherwise, is generally found to be more reasonable if it goes against a standpoint with which the students disagree.

Incidentally, it may not be concluded from these results that the respondents let their own attitudes – or as some might prefer, prejudices – completely color their

judgment of reasonableness, thus acting irrationally. A more refined conclusion is required. After all, even in this research in which exclusive fragments were presented that contained controversial standpoints to which the respondents had committed themselves (to put it briefly: loaded standpoints) we still find the, by now, "familiar" patterns in unreasonableness: The fallacies, even under these extreme conditions, were found to be less reasonable than the sound discussion moves (3.96 (0.51) versus 4.82 (0.82)), and of the three personal attacks the direct attack was yet again deemed to be the least reasonable (3.77 (0.71)), then the indirect attack (3.97 (0.70)), and subsequently the *tu quoque* variant (4.17 (0.62)). So far the judges still appear, even under these exceptional circumstances, to base their views on the reasonableness of discussion moves on critical rational considerations concerning the quality of the argumentation put forward, albeit that these considerations are "colored" in a way because of their own prejudices.

4.7 Cultural Differences and the Freedom Rule

Two aspects that affect not so much the internal as the external validity of the studies undertaken (i.e. the extent to which the results of the research can be generalized to (1) other, similar texts and to (2) other similar groups of respondents), deserve further consideration in this overview of fallacies that imply a violation of the freedom rule. In the hitherto discussed study, fragments were presented in which the freedom rule was constantly violated by the antagonist (B), and by him alone. Considering that according to the freedom rule a standpoint can be violated, in principle, by both the antagonist and the protagonist, this standard set-up can mean a potential loss of external validity. However, in the studies carried out within the scope of the second pragma-dialectical discussion rule (in this case the obligation-to-defend rule) fragments are also included in which the fallacies presented are not committed by the antagonist, but by the protagonist. Without going into further detail here, it can be concluded from the results that for respondents who were asked to judge the reasonableness or unreasonableness of fallacies violating the freedom rule, it is irrelevant who commits these fallacies – the protagonist or the antagonist (see Chapter 5).

The second external validity aspect concerns the fact that the studies into the conventional validity of the freedom rule we already discussed, were carried out in The Netherlands. Our respondents are undoubtedly familiar with the mores of the typical Dutch culture of consultation: The much-praised "polder model" (i.e. slow decision-making process where everybody has to be heard), with its emphasis on rational consultation, emphatic rejection of verbal and non-verbal violence, explicit condemnation of verbal demagogy and pursuit of consensus by conflicts – these are all typical characteristics of the prevailing and idealized "polder debate" in The Netherlands. All activities which pose a threat to this dominant ideal of reasonableness and which could therefore block or frustrate a possible resolution to a conflict will be dismissed accordingly, thus also fallacies that per definition stand in the way

of rational problem-solving. In other cultures where striving towards consensus is felt less strongly violations of the freedom rule might perhaps be judged differently.[6]

In order to ascertain if the freedom rule is valid inter-culturally, thus not bound to the typical Dutch discussion and debate culture, the *ad hominem* study was replicated in Spain, England, Germany and Indonesia – countries with other traditions and customs when it comes to discussion and debate (Piñol, 1999). Furthermore, in Spain a replication took place based on considerations which will be explained later.

All fragments from the Dutch-language study were adapted to the specific culture where the study took place. A typical Dutch dialogue fragment about, for example, preparing a meatball ("I think you should add an egg to the minced meat; it will taste better") was replaced in the Spanish study by "creo que deberias poner mas chorizo en las lentejas; estan mucho mas buenas" (I think that you should add more *chorizo* to the lentil soup; it will taste much better), a fragment more suited to the Spanish gastronomic culture. Apparently, the fallacies (in this case personal attacks) shown in Table 4.5 are also found to be less reasonable in foreign countries than the sound discussion moves.[7]

Table 4.5 Average reasonableness score for discussion contributions with or without violation of the freedom rule, per study (1 = extremely unreasonable; 7 = very reasonable)

	Violation of the freedom rule	No violation of the freedom rule	k	Age
The Netherlands (n = 92)	3.75 (0.46)	5.29 (0.64)	48	15–17
The Netherlands replication (n = 24)	3.43 (0.64)	5.26 (0.72)	24	15–17
England (n = 60)	3.99 (0.44)	5.24 (0.48)	48	18–19
Germany (n = 41)	3.48 (0.54)	4.88 (0.42)	48	16–18
Spain (n = 47)	4.08 (0.60)	4.93 (0.65)	48	15–16
Spain replication (n = 30)	3.54 (0.64)	4.97 (0.86)	24	15–16
Indonesia (n =50)	3.83 (0.69)	5.10 (0.56)	48	17–19

[6]Concerning the polder debate discussed here with its special emphasis on the agreement of consensus it has to be noted that the accent in the pragma-dialectical argumentation theory lies not on the maximization of agreement, but quite the opposite – on the minimization of disagreement (Van Eemeren & Grootendorst, 1994).

[7]Like in the Dutch study, the statistical testing of the difference in unreasonableness between fallacious and non-fallacious discussion moves every type of fallacy (k = 12) was compared individually and contrasted with the 12 sound dialogue fragments, abstracting from the type of discussion context.

The typical rank order concerning the reasonableness of the three personal attacks studied was also found in the countries involved, even though the foreigners, generally speaking, discriminated somewhat less between the three personal attacks: The direct attack is consistently deemed to be the least reasonable, just like in The Netherlands, but abroad usually no distinction is made in reasonableness between the indirect attack and *tu quoque* variant (Table 4.6).

So far the results obtained abroad are more or less consistent with those obtained in The Netherlands; *ad hominem* attacks are deemed less reasonable than sound discussion moves, and also the foreigners discriminate between the three types of personal attacks, albeit somewhat less. However, what cannot be entirely replicated

Table 4.6 Average reasonableness score for the three variants of the *argumentum ad hominem*: direct attack, indirect attack and the *tu quoque* variant, per country (F = overall tests for differences between the three types of fallacies, with (between parentheses) the corresponding number of degrees of freedom; ES = effect size, connected to F; F1 = first *a posteriori* Helmert contrast between the first type of fallacy versus the second and third; F2 = second *a posteriori* Helmert contrast between the second and third type of fallacy)

	dir.	ind.	*tu q.*	F	ES	F1	F2
The Netherlands	2.91	3.90	4.45	25.22[1]	0.16	43.33[1]	6.42[2]
	(0.64)	(0.57)	(0.60)	(2,33)			
The Netherlands replication	2.99	3.47	3.82	1.95*	0.04	7.35[1]	1.51*
	(0.76)	(0.94)	(0.88)	(2,15)			
England	3.32	4.13	4.54	12.12[1]	0.12	18.05[1]	2.21*
	(0.64)	(0.61)	(0.46)	(2,33)			
Germany	2.99	3.52	3.93	4.24[2]	0.06	6.90[2]	1.61*
	(0.61)	(0.66)	(0.63)	(2,32)			
Spain	3.51	4.23	4.49	9.42[1]	0.05	17.21[1]	1.21*
	(0.87)	(0.70)	(0.73)	(2,48)			
Spain replication	3.01	3.61	3.99	4.84[2]	0.07	15.67[1]	2.72*
	(1.12)	(0.75)	(0.78)	(2,22)			
Indonesia	3.21	3.75	4.53	8.99[1]	0.11	11.71[1]	6.18[1]
	(0.78)	(0.99)	(0.83)	(2,39)			

*Not significant; [1]p<0.01; [2]p<0.05.

Result for the Netherlands (replication): direct attack: F(1,17) = 23.88; ES = 0.37; indirect attack: F(1,25) = 17.36; ES = 0.27; *tu quoque*: F(1,16) = 9.0699; ES = 0.19.

Result for England: direct attack F(1,31) = 50.02; ES = 0.32; indirect attack: F(1,28) = 19.66; ES = 0.14; *tu quoque*: F(1,25) = 5.99; ES = 0.05.

Result for Germany: direct attack: F(1,28) = 27.99; ES = 0.29; indirect attack: F(1,29) = 17.92; ES = 0.18; *tu quoque*: F(1,28) = 8.33; ES = 0.09.

Result for Spain: direct attack: F(1,41) = 26.95; ES = 0.16; indirect attack: F(1,31) = 6.34; ES = 0.05; *tu quoque*: F(1,29) = 2.58; ES = 0.01.

Result for Spain (replication): direct attack: F(1,19) = 17.17; ES = 0.29; indirect attack: F(1,14) = 6.51; ES = 0.15; *tu quoque*: F(1,15) = 5.24; ES = 0.08.

Result for Indonesia: direct attack: F(1,35) = 40.69; ES = 0.28; indirect attack: F(1,39) = 21.47; ES = 0.16; *tu quoque*: F(1,38) = 3.96; ES = 0.04. With the exception of the *tu quoque* fallacy in the Spanish main study all tests carried out are statistically significant at 5% level.

Table 4.7 Average reasonableness score for *ad hominem* fallacies in three types of discussion contexts (D = domestic domain; P = political domain; S = scientific domain), per country

	D	P	S	F	ES	F1	F2
The Netherlands	4.09	3.94	3.22	8.80[1]	0.06	0.45*	16.88[1]
	(0.62)	(0.66)	(0.61)	(2,35)			
The Netherlands replication	3.78	3.88	2.63	5.65[2]	0.12	3.73*	15.32[1]
	(0.72)	(0.82)	(0.79)	(2,12)			
England	3.93	4.41	3.66	2.84*	–	–	–
	(0.52)	(0.58)	(0.67)	(2,33)			
Germany	3.75	3.49	3.21	1.44*	–	–	–
	(0.66)	(0.73)	(0.65)	(2,34)			
Spain	3.89	4.49	3.84	4.91[2]	0.03	0.04*	9.39[1]
	(0.74)	(0.75)	(0.80)	(2,48)			
Spain replication	3.27	4.27	3.07	8.56[1]	0.10	0.79*	32.23[1]
	(0.90)	(0.63)	(1.01)	(2,20)			
Indonesia	3.66	4.07	3.76	1.08*	–	–	–
	(0.87)	(0.54)	(0.91)	(2,33)			

*Not significant; [1]$p<0.01$; [2]$p<0.05$.

are the findings in The Netherlands concerning the unreasonableness of the personal attacks in the three discussion contexts (see Table 4.7). Unlike in The Netherlands where the fallacies in a scientific discussion context were consistently judged the most severe while no differences could be found between a political and a domestic context, the lines drawn between the three specified contexts were totally different abroad.

Unlike in the Netherlands, in England, Germany and Indonesia there was no discrimination whatsoever between the three discussion contexts and where that rarely occurs, in Spain, the situation is entirely different. In the Spanish main study, for example, there is absolutely no discrimination between the fallacies in a scientific context and in a domestic context and, unlike in The Netherlands, the fragments in a political discussion context are judged much more leniently there than those in the other two domains. By the way, this anomaly was also found in the second study, the replication study.

Why are in Spain the fragments, for example, in a domestic discussion context found to be just as unreasonable as those in a scientific discussion context? Is it on the basis of the critical content or on the basis of politeness? From an analysis beforehand it appears that politeness plays a completely different role in the Spanish culture than in The Netherlands, particularly where communication is concerned between intimates, friends and acquaintances. By virtue of current Spanish conventions which govern the social etiquette between intimates it is definitely "not done" and is highly improper to carry out a "face threatening act" especially towards intimates and friends, for example, simply refusing a request – not to mention such a face threatening act relating to openly discrediting and insulting the opposing party via a direct personal attack!

We had already calculated that politeness would play a different role in the Spanish domestic domain – that was exactly one of the reasons why the conventional

validity of the freedom rule was also tested in Spain. In a preliminary study, 20 Dutch adults and 20 Spaniards (residing in the Netherlands) were asked to give their opinion when asked the question (1) what they themselves would do and (2) what they think a typical Dutch/Spanish person would do in (seven) situations like the follwing:

You have invited a friend for dinner. After dinner you feel really tired. Furthermore, it is very late and you have to get up early next morning. What would you do?

a. You tell him/her affably that it is late, that you are very tired, that you have to get up early next morning and you kindly request your guest to leave.
b. You drop hints and give signs that it is time to leave (for example by yawning or looking at your watch).
c. He or she is your guest and you must wait until he or she says they would like to go home.

The differences between the Dutch and the Spaniards concerning their choice of the preferred course of behavior are considerable (a. the "on record" performance of the "face threatening act," b. the "off the record" performance of the face threatening act, c. the non-performance of the face threatening act), as to the question what they think their average fellow-countrymen would do in the (seven) situations mentioned above, the differences are truly quite dramatic (Table 4.8).

That politeness apparently plays a different role in Spain than in The Netherlands also emerges from the justifications that the Spanish respondents gave in the replication study (by 29 of the 30 respondents justifications were given) at the 12 *ad hominem* fallacies. A considerable proportion (41%) of the 348 justifications given could not be interpreted, i.e. could not be placed in any of the categories in the coding system (described in Chapter 3). Of those answers that could be processed the majority fell into one of the categories related to the quality of the argumentation (67%), the rest of the justifications given (33%) could be categorized as politeness. It should be noted that compared with The Netherlands the proportion of politeness-based reactions in Spain is considerably greater (33% in Spain versus

Table 4.8 Distribution of chosen alternative answers to the question: "What would you do yourself" (own reaction) and to the question "What would be the typical reaction in The Netherlands/Spain?" (typical reaction) from the Dutch (n = 20) respectively Spaniards (n = 20) for 7 potentially face threatening situations

	Own reaction		Typical reaction	
	Dutch	Spanish	Dutch	Spanish
a – Openly ("on record") performance	100	84	84	4
b – Casual ("off record") performance	26	22	48	41
c – Non-performance	14	34	8	95

11% in The Netherlands). And it is quite striking that particularly in the domestic situation, which is by the way generally in line with the findings in Table 4.7, there is an almost 50–50 division of justifications which can be traced to the category "politeness" and to the category "quality of the argumentation." (Table 4.9)

Table 4.9 Distribution of answers to the question "Why do you think B's reaction is reasonable or unreasonable?" in three discussion contexts, according to the nature of the justification given ("politeness" versus "quality of argumentation"); *ad hominem* study Spain (n = 29)

	Domestic	Political	Scientific
Politeness	29	4	27
Quality of argumentation	28	42	41

Not only in Spain, but also in Germany and Indonesia the respondents were asked to explain their judgment of reasonableness scores in 12 dialogue fragments. In Indonesia, there was no justification given whatsoever in 36% of all cases; of the remaining justifications 34% fell into the category that was related to the quality of argumentation, only 1% of the justifications were based on considerations related to politeness. In Germany, 268 of the 492 justifications could be interpreted (71 answers were left blank). Of those, 78% fell into the category "quality of argumentation", in 12% of all cases the German respondents accused the antagonist of having given an impolite reaction, and in the remaining 10% the respondents let themselves be led by their own opinions concerning the content of the dialogue fragment.

Which conclusions can be drawn from this cross-cultural study? The most important conclusion is that the freedom rule may be labeled conventionally valid – also abroad, at least as far as *ad hominem* attacks are concerned. In England, Germany, Spain and Indonesia, so it appears from the converging results obtained from the studies carried out there, personal attacks that violate this rule were also deemed much less reasonable than the non-fallacies. Even the "reasonableness relations" between the three *ad hominem* fallacies were deemed no different by the foreigners, at least not fundamentally different, than in The Netherlands. And also the justifications that the respondents gave about their given judgments in Spain, Germany and Indonesia did not deviate greatly from those in The Netherlands: The *ad hominem* fallacies were largely rejected due to their dubious argumentative quality. However, unlike in The Netherlands, the foreigners did not discriminate between the three discussion contexts – with one (predictable) exception: Spain. That the foreigners did not discriminate between the three discussion contexts has an important implication for the internal validity of the studies that were carried out abroad: It is no longer possible to discriminate between the two rival explanations of the reasonable judgments (critical considerations versus politeness). In order to be able to reach a conclusion a quantitative analysis of the justifications given will have to be used – more than is the case in The Netherlands.

To this all, we still have to add a nuance namely that in Spain the "politeness" factor plays a different role than in The Netherlands in the judgment process of the unreasonableness of fallacies, particularly in a domestic discussion context. In that

context it appears that the delicate social balance between conversational partners can be upset much sooner than in The Netherlands; this is reflected in the data. It has become clear by now that in Spain the domestic domain can definitely not be considered as an informal situation in which face threatening acts are more readily tolerated.

In order to be able to strongly discriminate on statistical-quantitative grounds between the rivaling explanations of the results in terms of "impoliteness" versus "lack of argumentative quality" entirely different analytical-methodological distinctions between discussion contexts should be used than those in The Netherlands.

4.8 Conclusions

Summarizing briefly, the results of the empirical study into the fallacies that fall within the scope of the freedom rule amount to the following:

(1) Normal judges make a marked difference in their judgment on the reasonableness of discussion moves with a fallacy and discussion moves without a fallacy and they do this in a relatively consistent manner. Discussion moves with a fallacy, *ceteris paribus*, are deemed much less reasonable than discussion moves without a fallacy.
(2) Normal judges make a consistent distinction when judging between the reasonableness of the *argumentum ad baculum*, the three variants of the *argumentum ad hominem* (in this case the direct personal attack, the indirect personal attack and the *tu quoque* variant), the *argumentum ad misericordiam* and the fallacy of declaring a standpoint taboo. The *argumentum ad baculum*, *ceteris paribus*, is deemed the least reasonable, followed by the direct attack and the fallacy of declaring a standpoint taboo, subsequently the *ad misericordiam* fallacy and lastly the *tu quoque* variant.
(3) Normal judges regard fallacies in scientific exchanges of opinions are much less reasonable than fallacies in other types of discussions. The *tu quoque* variant is judged as an unreasonable move only in a scientific discussion context.
(4) Normal judges justify their judgments about the unreasonableness of the fallacies studied not so much in terms of impoliteness, but on the grounds of the fact that such unsound discussion moves, in their opinion, fail in an argumentative sense.
(5) Normal judges appear incapable of formulating a (normative) discussion rule like the freedom rule at a slightly higher abstract level, even when they are significantly steered and assisted.
(6) Judges in England, Germany, Spain and Indonesia, generally speaking, feel the same about fallacies as their peer groups in The Netherlands. In Spain, even though the "politeness" factor plays a stronger role than in The Netherlands

when judging the unreasonableness of discussion contributions, particularly in a domestic discussion context, it does not alter the fact that the reasonableness of discussion contributions we already discussed here, are also primarily judged on the basis of the quality of argumentation.

All these findings confirm the theory that the pragma-dialectical discussion rule for the confrontation stage is to a large extent in accordance with the norms that normal judges apply and/or say to apply to the judgment of the reasonableness of discussion contributions. By the way, this confirmation does not mean that the conclusion may be drawn that ordinary arguers themselves would behave in their daily, non-experimental discussion practice under all circumstances as purely rational judges. In the only study in which – incidentally unintentional – the loadedness of the discussion topic was not kept under control (namely the study of the fallacy of declaring a standpoint taboo), quite a strong correlation appears to exist between someone's attitude and their judgment on the reasonableness of a discussion contribution. Even though the views on reasonableness of ordinary arguers are, to a large degree, modeled in terms of a normative theory, it is clear that these views show human traits – and occasionally even too human traits.

Chapter 5
The Opening Stage: The Obligation-to-Defend Rule (I)

5.1 The Obligation-to-Defend Rule in Non-mixed Disputes

As was already illustrated in the previous chapter, some discussions get derailed even before the discussant has put forward a single argument. A premature obstruction is also possible due to the discussants not being able to agree on the question *who* should actually put forward the argumentation: Which of the parties should come up with a defense? The rule of thumb in these sorts of cases is since classical antiquity: That he who alleges something must prove that allegation (cf. *affirmanti incumbit probatio*). According to this rule, under normal circumstances the party who brings forward a standpoint also has to defend that standpoint by putting forward argumentation if the standpoint is challenged. But language users who have brought forward a standpoint in a discussion are not always that keen on defending that standpoint. The most drastic way in which the protagonist can get out of his duty to defend is to shift the burden of proof to the opposing party, i.e., to the person who casted doubt on the standpoint: "If you don't believe me, *you* should prove that it is *not* so." This fallacy is known as *shifting the burden of proof*.

Usually, shifting the burden of proof happens in a more indirect way, as would appear from the following fragment which comes from an interview with Mr. Geertsma, the former Royal Commissioner in Gelderland, The Netherlands, in the weekly magazine *Televizier* in 1981. In this interview, this liberal ex-minister for Internal Affairs conveyed his suspicion that the squat actions and actions against nuclear energy that had taken place were financed with money which came from bank robberies. As an example he mentioned the recent squat actions in Nijmegen:

> Thousands came by train to Nijmegen and stayed there for days on end. That must have cost a fortune. That money had to come from somewhere (...). I can't prove it (...) and it's not my responsibility to find out (*Het Parool*, August 20, 1981).

From a pragma-dialectical perspective it really is up to Mr. Geertsma to find out. What he conveniently ignores here is that he himself has the burden of proof for his own allegations and that it is not up to *others* to prove him wrong. Whether shifting the burden of proof happens in a blunt manner or in a more subtle way, there is in either case a violation of the pragma-dialectical rule for the opening stage: The obligation-to-defend rule.

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In the opening stage the participants in the discussion decide to make an attempt to resolve the difference of opinion: Those involved consider whether there is sufficient common ground to be able to undertake a serious attempt to resolve the difference, they make agreements about the way in which they will conduct the discussion, the way it should end, the division of roles (who should be the protagonist and who should be the antagonist) and the material starting points of the discussion. In standard practice, it is usually understood that the above-mentioned conditions for a reasonable discussion have been fulfilled.

The rule that regulates the allocation of the burden of proof, the obligation-to-defend (also known as the rule for the opening stage) is as follows: "Discussants who advance a standpoint may not refuse to defend this standpoint when requested to do so." As argued, this rule can be violated by the protagonist of a standpoint by challenging the antagonist – who has only expressed doubt – to take the opposite standpoint. A slightly more subtle method of wriggling out of the obligation to defend rather than to shift the burden of proof is to introduce the standpoint as something entirely matter-of-course that does not require any further defense. The protagonist is then guilty of committing the fallacy of evading the burden of proof. In order to avoid a discussion in this fallacious way, a protagonist has a vast armory at his disposal of more or less idiomatic expressions to emphasize that a standpoint, in a manner of speaking, is irrefutable: "It does not need to be argued that", "There can be no two ways about it", "There is no doubt that", "That is logical", "You don't want to know!" and so on.

Another way in which the protagonist can dodge the obligation to defend is that he, as it were, personally vouches for the accuracy of the standpoint ("With my hand on my heart, I can personally assure you that", "You can take it from me that", "I guarantee you that"). The speaker vouches for the acceptability of the standpoint with his – in some cases alleged – expertise or authority. Here is an example taken from an interview with Leo Beenhakker, the former successful trainer and coach of the Amsterdam soccer club Ajax:

> In the present situation it is tempting to lean back in all sections of Ajax because everything is going so well. That attitude could be disastrous. The championship was not the final destination, merely the departure point. We currently have eight boys out of our own youth in the A-selection. An extraordinary proportion. But I guarantee you: The Ajax river will run dry the next two years. We have to already anticipate that. (*Het Parool*, February 8, 2003)

A third way of evading the burden of proof is to phrase the standpoint in such a way that all the attempts at attacking ricochet off an armory of immunity. Every criticism to such "shady" formulated standpoints will be stifled because it withdraws itself from every form of judgment or testing: "Man is a hunter by nature", "Women are essentially possessive", and "Germans are basically war-minded." In these standpoints general terms are continually used, e.g. man, women et cetera, whilst quantifying words such as "all", "some", and "on average" – expressions that, in principle, could lead to the falsification of such standpoints – have been deliberately avoided. How many counterexamples of peace-loving Germans does the antagonist have to give, will the protagonist ever give up his standpoint?

Those essentialistic expressions such as "essentially", "by nature" et cetera immunize all criticism to such standpoints: Whoever produces a concrete counterexample of the standpoint that men are essentially hunters ("Utter rubbish! Look at uncle Joop!") will be easily parried by the opposing party with the remark that the man given in the counterexample is not actually a "real" man or that the counterexample is a superficial observation that shows nothing about the essence of "man."

In each of the fallacious discussion moves considered here ((1) shifting the burden of proof, (2) evading the burden of proof by presenting the standpoint as self-evident, (3) evading the burden of proof by personally guaranteeing the correctness of a standpoint, and (4) evading the burden of proof by phrasing a standpoint in such a way that it becomes immune to criticism) it has always been taken for granted that they exclusively occur in a non-mixed dispute, i.e. just one party has brought forward a standpoint therefore only one party has something to defend. But of the four fallacies discussed here, only one can be committed exclusively in a non-mixed dispute: Shifting the burden of proof. Crucial to this fallacy is that the protagonist, the one who brought forward the standpoint, turns the original non-mixed dispute into a mixed dispute by using devious means. However, in the three other fallacies the false moves could of course also occur in a mixed dispute.

In a mixed dispute, where both parties have brought forward a standpoint and therefore both have the burden of proof for their own standpoint, the case for the division of the burden of proof is somewhat more complicated than the fallacies dealt with in this chapter: In mixed disputes a decision has to be made regarding, among others, the sequence the parties will divest themselves from their burden of proof. Such mixed disputes, the specific problems with regard to the division of the burden of proof and the consequential unsound discussion moves will all be dealt with in the next chapter. In this chapter, we will discuss six experiments in which the obligation-to-defend rule is violated by (1) shifting the burden of proof, (2) evading the burden of proof by introducing the standpoint as something entirely matter-of-course, (3) evading the burden of proof by personally guaranteeing the rightness of a standpoint, and (4) evading the burden of proof by phrasing a standpoint in such a way that it becomes immune to criticism.

5.2 The Burden of Proof: *Onus Probandi*

The term *burden of proof* is originally a juridical term and refers to the obligation of proving the accuracy or plausibility of certain facts. The party with which this obligation rests in a legal process is the one who has the burden of proof. Unlike in everyday conversations, there are certain fixed rules in procedural law concerning the division of the burden of proof – should these be absent or in exceptional cases inadequate then the judge's decision is decisive.

From a historical point of view, the term *burden of proof* originates in classic Roman law in which these "burdens" (i.e., task; order; obligation) were used to

present arguments in the name of *onus probandi* (cf. "burden of proof"). This term was specifically related to the fundamental, legally determined division of work and roles between the prosecutor and the counsel for the defense in legal proceedings: The *onus probandi* answered the procedural question which party should come when with evidence. Under classic Roman law the prosecutor had to start first in all cases and give an explanation of his charges; subsequently, he had to present arguments for his "case" (*agenti incumbit probatio*), after that the counsel for the defense had to argue his "counter case" in the so-called *exceptio*, then it was the prosecutor's turn again with his *replicatio*, and so on (cf. Rescher, 1977, p. 25 et seq). In short, the burden of proof, in all cases, initially laid with the party that made an accusation. The basic assumption was expressed by the fundamental rule: *Necessitas probandi incumbent ei qui dicit non ei qui negat* (the obligation of proof rests with the person who makes the claim, not the one who denies the claim).

During an interview in the 1990s an irritated Wim Kok (Dutch PvdA labor party leader) was confronted with criticisms that the PvdA ministers in the coalition government were not creative. He reacted to this allegation in the following way:

> I think it is a hard blow to typify present cabinet ministers in that way. There is no justification for that. There is not a scrap of truth in it.
>
> *Can you substantiate that?*
>
> Let the burden of proof be with the one that throws mud and not with me. What have we got now? If somebody throws mud around, do I have to prove that Hans Alders [a PvdA-minister] really is creative? You must be joking. That's the topsy-turvy world.

Participants in an everyday argumentative discussion have the freedom in the opening stage to share the burden of proof between themselves as they see fit. It is perfectly feasible that the participants agree that the one who casted doubt on a standpoint in the confrontation stage takes the role of the protagonist and with it the defense of that standpoint. A similar agreement to act as "the devil's advocate" can in some cases be beneficial to the critical testing of the argumentation for a standpoint (van Eemeren & Grootendorst, 1984, p. 159).

However, if in practice an explicit agreement has not been made about the division of the burden of proof, the burden of proof rests in principle with the one who brought forward the standpoint in the confrontation stage. Thus, this person will take up the role of the protagonist and has to defend the standpoint if challenged. The protagonist can only be released from this obligation to defend if he, firstly, has already defended the same standpoint against the same antagonist, while yet nothing has changed either in the starting points or in the discussion rules. The defense would, in that case, merely amount to a futile repetition of moves. Secondly, he can be released from his obligation to defend if he has a challenger who is not willing to commit himself to anything nor abide by the rules. Defending a standpoint is then an utter waste of time because the necessary conditions for resolving a difference of opinion are not met.

5.3 Shifting the Burden of Proof

In practice discussants sometimes try to avoid their obligation to defend a standpoint using devious means by simply putting the *onus probandi* on the shoulders of the opposing party. In *de Volkskrant* newspaper, William Rothuizen spotted a good example of this discussion trick used by, nota bene, the Dutch government courtesy of the TV License Fee Service, a public service that – at the time – fell under the administration of the Minister of Art and Cultural Affairs, Hedy d'Ancona:

> In the newspaper *NRC Handelsblad* of 15 April minister d'Ancona mentioned "the successful hunt for illegal viewers." That is a perfect example of a fallacy. That hunt proceeded as follows: On March 11 you will receive a letter from the TV License Fee Service under the motto: "A different view to your favorite program." [. . .] You can see that your name and address do not appear in "our records" and since "a television can be found nowadays in almost every home in the Netherlands", it is high time you paid your radio and television license fee. [. . .] Imagine you are one of the inhabitants of this country who does not have time to watch television or does not like what television has to offer. You have no television "at home" [. . .]. You would rather throw the nasty piece of correspondence in the waste basket, but it does not work like that. Enclosed is a form which you have to fill in stating you do not have a television. What minister d'Ancona calls a "successful hunt" is nothing short of reversing of the burden of proof.

In the case of the fallacy of shifting the burden of proof the protagonist makes various mistakes, which are illustrated in the following example:

A: Newspaper journalists are becoming less objective.
B: How's that?
A: Now, then you explain that they are just as objective as they used to be.

Firstly, the protagonist, A, wrongly allocates the role of the protagonist to B: After all A should be the one to prove that newspaper journalists are just as objective as they used to be. Secondly, A erroneously pins a standpoint onto B. In the confrontation stage B did not take any standpoint whatsoever nor did he say he would defend any standpoint: He *only* casted doubt on A's standpoint, which does not imply that he also brings forward a negative standpoint (in this case "it is not the case that newspaper journalists are becoming less objective"). Thirdly, the protagonist acts as if the difference of opinion is a *mixed* one when in actual fact it is clearly *non-mixed*. And the protagonist takes it even a step further when he himself completely backs out of his obligation to defend and to support his own standpoint.

The fallacy of shifting the burden of proof, also – following John Locke – referred to in the professional journals as *argumentum ad ignorantiam*,[1] hinders the

[1] In Locke's case it is about the protagonist's attempt to get the antagonist so far that he will prove that the standpoint, which he only casted doubt on, is incorrect. The hidden fallacy is that the protagonist presents matters in such a way that the antagonist, by casting his doubt, is obliged to do so. In more recent publications the term *argumentum ad ignorantiam* is also used to indicate the so-called "ignorant" – or "stupidity" – fallacy which means that from the fact that it is not proven that something is the case will be concluded that it is not the case. Or from the fact that

resolution of the difference of opinion to a considerable extent. How the discussion further develops largely depends on the antagonist's (B) reaction. If he refuses to accept the standpoint that A erroneously pinned on him, the discussion will come to a standstill and to a premature end. But even if B does decide to defend that standpoint, the *original* difference of opinion cannot be resolved since a new discussion situation has arisen leaving B with the burden of proof for the reversal of the original standpoint casted in doubt. How will ordinary arguers react to this fallacious discussion move?

5.3.1 Set-up: Material

Thirty-nine students were presented with 48 dialogues, 36 of which contained a fallacy, the other 12 did not. In the 36 fallacious dialogues, the following fallacies were all committed 12 times: Shifting the burden of proof, the abusive variant of the *ad hominem* fallacy and the *tu quoque* variant of this fallacy. Here is an example of the fallacy of shifting the burden of proof taken from the material presented to the respondents:

A: I think your friend is a little bit sneaky.
B: How do you mean? Why should you think that?
A: Explain to me why he isn't then.

As was the case with the study into the conventional validity of the freedom rule, the dialogue fragments, 48 in total, were presented in three discussion contexts, a scientific discussion, a political debate and a discussion in a domestic context (the dialogue given above comes from a domestic discussion context).[2] Here follows an

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it is not proven that something is not the case will be concluded that it is the case. Even though misunderstandings about the burden of proof play an important role in this fallacy, all the same it is clear that we are dealing with another case: One of the most important differences between the fallacy of shifting the burden of proof and the *argumentum ad ignorantiam* is that the first concerns a violation of a discussion rule in the opening stage and the second concerns a discussion rule in the concluding stage. Violations of the last type will be discussed in Chapter 8; there the *argumentum ad ignorantiam* will be dealt with more extensively.

[2]Also in the case of the fallacy of shifting the burden of proof politeness could act as an alternative explanation for the results of the study. Take for example the above-mentioned short dialogues, where B, the antagonist, asks for further clarification and argumentation for the protagonist's standpoint. His request is not only ignored point-blank by A – which in normal conversations can be characterised as a relatively rude reaction – the entire conversation becomes even ruder because immediately after the non-compliance of his discussion partner's request, A launches the contra-attack by challenging B to defend an opposite standpoint (a standpoint which incidentally he has not even taken). Is the respondent's rejection of the fallacious discussion moves in the dialogues really based on the fact that the burden of proof was shifted or are there perhaps other factors on which they could have based the rejection of the discussion moves? A possible alternative explanation is that the judges have not so much based their rejection on the fact that the principle of the obligation-to-defend rule is violated, as well as the fact that in the dialogues a request from one of the parties to give a clarification, explanation or argumentation for his standpoint is refused by the other party – to make matters even worse it is "counter-attacked" (see, for example, *Simone:* Why do you think the Queen should stay? *Bianca:* No, *you* have to say why she should leave.). In their

example of a dialogue from a scientific discussion context and an example from a political discussion context:

A: I think it is impossible to study molecular movement with the help of spectroscopy.
B: Really? Why do you think that?
A: Well then, you prove that it is possible.

A: In our opinion, the *Betuwelijn* [a new railway track in The Netherlands] remains a necessity.
B: Why do you think that? Can you explain it?
A: Then you tell us how we can manage without the *Betuwelijn*.

Each dialogue presented for judgment consisted of three turns. In the first turn, A brings forward a standpoint (presented with standpoint markings such as "I think that"), the second turn always includes a reaction of doubt from B towards A's standpoint ("Is that so?," "What do you mean" etc.), followed by A being requested to explain and defend his standpoint ("Why do you think that?," "Could you explain that?"). By that, B's turn is explicitly situated in the opening stage. In the third turn, A commits the fallacy of shifting the burden of proof.

In this study three types of fallacies were studied for reasonableness and unreasonableness: Shifting the burden of proof and two fallacies taken out of previous studies: The direct personal attack and the *tu quoque* variant of the *ad hominem* fallacy – both latter fallacies also act as gatekeeper of the validity. But unlike in the study concerning the freedom rule reported on in the previous chapters where the direct attack and the *tu quoque* variant played a part and the dialogues generally consisted of two turns and where the fallacies were virtually all committed by the antagonist, the dialogues in this study all consist of three turns and it is not the antagonist but the protagonist who is guilty of committing the fallacies of the direct personal attack or the *tu quoque* variant.[3] Here is an example:

A: I think that a Volkswagen is the best choice right now.
B: I think a Ford handles better; they just zoom along the road.
A: You can't possibly conclude that, you don't know anything about cars.

Should the results in this study concerning the reasonableness or unreasonableness of the direct attack and the *tu quoque* variant be consistent with those from the

judgments the respondents could have oriented themselves on a certain type of sequential continuation rule according to which the discussion partner who is asked first to clarify his standpoint also has the duty to give his clarification first. A similar rule is supported by the principle of conditional relevance from conversation analysis that after carrying out the first part of an adjacency pair, carrying out the second matching pair part is put on top of the "interactional agenda".

[3]For this study all the fragments had to consist of three turns to prevent the respondents basing their judgments merely on the appearance (i.e. the sheer number of turns) and the formulations in a dialogue.

previous Chapters then this will be a good indication for the validity: The two fallacies concerned will then not only be judged as unreasonable discussion moves when committed by the antagonist but they are considered equally unreasonable when the protagonist commits the same offence.

5.3.2 Results

From the results (see Table 5.1) it appears that the respondents deem the fallacy of shifting the burden of proof to be a very unreasonable move, qua unreasonableness at least comparable with a direct personal attack.

When we leave out the discussion domain and the type of fallacy, on average, the three fallacies are deemed to be much less reasonable (2.97 (0.98)) than those discussion moves where no discussion rule had been violated (4.51 (0.67)). Each of the three type of fallacies (each represented by 12 instantiations) is, in a statistical sense judged to be less reasonable than the sound discussion moves (shifting the burden of proof: $F(1,46) = 60.77$; $p < 0.01$; ES $= 0.36$; direct attack: $F(1,32) = 30.55$; $p < 0.01$; ES $= 0.26$; *tu quoque*: $F(1,31) = 5.24$; $p < 0.05$; ES $= 0.05$). Considering the effect sizes cncerned, it seems that the respondents discriminate the most between sound argumentation and the fallacy of shifting the burden of proof.

The respondents also noticed vast differences in unreasonableness between the three types of fallacies ($F(2,47) = 15.89$; $p < 0.01$; ES $= 0.14$). The fallacy of shifting the burden of proof and the direct attack, on average, are both deemed much less reasonable than the *tu quoque* variant ($F(1,47) = 29.75$; $p < 0.01$), but the respondents do not differentiate in reasonableness between shifting the burden of proof and the direct attack ($F(1,47) = 1.88$, n.s). In this study too it seems for the umpteenth time that – from an absolute point of view – the *tu quoque* variant is only considered to be an unreasonable move in a scientific discussion context. The ordinal pattern in reasonable relations between the direct attack and the *tu quoque* variant found repeatedly in previous studies was also found here, where these unreasonable discussion moves were not brought forward in two turns, but in three turns and where these unreasonable discussion moves were not committed by the antagonist, but by the protagonist. Naturally, this emerged stable pattern benefits the general applicability.

Table 5.1 Average reasonableness score per type of fallacy (shifting the burden of proof, direct personal attack and *tu quoque* variant), per type discussion context

	Shifting the burden of proof	Direct personal attack	*Tu quoque*
Discussion domain			
Domestic	2.52 (0.99)	2.87 (0.90)	4.17 (1.11)
Political	2.01 (1.05)	2.56 (0.86)	4.33 (0.94)
Scientific	2.58 (1.13)	2.80 (0.63)	2.83 (0.99)
Overall	2.37 (0.89)	2.75 (0.61)	3.78 (0.74)

Contrary to our expectations, it seems that this time the respondents did not discriminate between the three discussion contexts in a statistically reliable manner (D = 3.19(0.76), P = 2.99(0.69) and S = 2.73(0.75)), although the test results clearly lean towards significance (Helmert contrast between scientific context on the one hand versus the two other contexts on the other hand: $F(1,44) = 2.74$; $p < 0.10$; ES = 0.01). In order to exclude the "politeness" factor as an alternative explanation, we will have to use particularly the qualitative data.

In 12 of the 48 items some of the respondents (n = 20) had to give a brief explanation for their reasonableness scores; 9 of those 12 concerned a burden of proof fallacy. Not only from the quantitative results but also from the qualitative analysis it is abundantly clear that the respondents consider the fallacy of shifting the burden of proof a completely unacceptable move. The majority of the respondents (about 75%) are more or less capable of accurately indicating where the fallacy of shifting of the burden of proof fails in an argumentative sense:

- The problem is transferred to the other person
- A switches it around
- A does not use any arguments himself
- He doesn't know himself, so A talks his way out of it

In a single, negligible case, one respondent based his judgment not on grounds of deficiencies in the argument put forward, but on a reaction that could point to a lack of politeness ("He gives no answer, he answers B's question with a question").

These qualitative results are in stark contrast with those from the previous Chapters which focused on the freedom rule. While it is already apparent from the (qualitative) study regarding the scope of the freedom rule that not a single respondent – neither in The Netherlands, nor elsewhere – is capable of articulating an explicit form of the freedom rule, in this study it seems, nota bene, that three quarters of the respondents can put the pragma-dialectical rule for the opening stage into words just like that ("Whoever alleges, has to prove," "If you bring something forward, you have to be able to back it up with arguments," and so on)! How can this remarkable result be explained?

Perhaps this result, or at least part of it, can be attributed to the idiomatic character of the obligation-to-defend rule which, in a manner of speaking, coincides with the specific violations. Phrases such as "Who alleges, has to prove" or "Who claims, has to prove," are part of the verbal standard repertoire of the modal arguer. However, before we can conclude that our respondents at a relatively conscious level use a discussion norm that is more or less identical to or coincides with the pragma-dialectical rule for the opening stage, it will have to be proved that the range of that discussion norm goes slightly beyond the fallacy studied here: Also in other cases of violations of the freedom rule the respondents will have to appeal to this rule. And in the case of other violations, such as the burden of proof by presenting the standpoint as self-evident, it will not be that easy for our respondents to extract the relevant discussion rule from the dialogues as with the fallacy of shifting the burden of proof studied in this section: When it comes to the fallacy of evading the burden

of proof by presenting the standpoint self-evident, the respondents will undoubtedly not have as much support from phrases such as "you demonstrate it then," "you tell me why," "you prove it then" etc. – briefly, phrases (in this study constantly used) that, in a manner of speaking, have to bring the discussion rule concerned to the attention of the respondents.

5.4 Evading the Burden of Proof: Presenting the Standpoint as Self-Evident

Unlike in the fallacy of shifting the burden of proof where the protagonist acts as if it is not he who has something to defend but the opposing party, in the fallacy of evading the burden of proof it is the protagonist who denies that the standpoint which he brought forward even needs any defense. Particularly if the discussants suspect that their argumentation cannot sufficiently justify their standpoint they will often make use of such sayings as "There can be no two ways about it," "Anyone in their right mind would agree with that," etc., so that they can avoid their obligation to defend. In the following fragment, which illustrates the fallacy of evading the burden of proof, the writer uses a similar saying:

> Anyone in their right mind sympathizes with parents who do not like their children playing in areas frequented by active homosexual men (M. Maessen *de Volkskrant*, August 30 1994).

People might get the idea that this fallacy belongs exclusively to the armory of experienced demagogues but the passage below about not smoking in public buildings, taken from a Dutch government leaflet, makes it clear that the evil is more widespread:

> Of course everybody should decide for themselves whether he or she should smoke (even though everybody knows it is bad for your health). But not if it bothers others. Everybody would agree with that. And that is the whole point of the ban on smoking: Protecting the non-smoker from the nuisance of smoking.
> A non-smoker should not be forced to do so by others. And let's be honest, using a fan to try and blow away the smoke does not solve the problem. . . .
> From: *Eindelijk een maatregel die helpt tegen rookoverlast* [Finally, a measure that helps against the nuisance of smoking]. The Hague 1990: *Stichting Volksgezondheid en Roken* [Foundation of Public Health & Smoking].

There is a multitude of such "reassurance-like" phrases (in the above-mentioned quote: "Everybody knows," "everybody would agree with that" and "let's be honest") from which the protagonist can choose whenever he wants to emphasize the fact that the standpoint which he brought forward does not require any defense whatsoever because it is indisputable:

> It needs no argument.
> There can be no two ways about it.
> It is beyond doubt.
> It is logical.

You don't want to know!
It speaks for itself.
That's the way of the world.
That is stating the obvious.
It is simply an axiom/a dogma.
There is no denying it.
Anyone in their right mind must agree with this.
There is no going back on this.
That is absolutely certain.
Without a shadow of doubt.
That is clear.
That is crystal-clear.
That happens to be a fact.
That is undeniably true.
It is as clear as daylight.
It cannot be denied.
That is beyond dispute.
That is beyond the shadow of a doubt.
It is incontestable/irrefutable/undeniable/indisputable.
It cannot be repudiated.
It must be obvious to everyone.
Et cetera

The suggestion implied by this reassuring set of words is that anyone who does not immediately see the obviousness of the standpoint must be extremely stupid – something that nobody likes to admit about themselves. However, in reality, these reassuring words often serves as a smoke screen to conceal the fact that the standpoint is not as impregnable as claimed. If the antagonist allows himself to be overwhelmed and intimated by this discussion trick, gives up his critical attitude and retracts his doubt, he will be doing exactly what the discussion trick was set out to do.

5.4.1 Set-up: Material

Once again 48 short dialogues were presented to 32 students for their assessment ("How reasonable or unreasonable do you think A/B's last reaction was?"); 36 of the dialogues contained a fallacy, 12 did not. They all consisted of three turns. From the fallacious fragments, the fallacy of evading the burden of proof (in a non-mixed difference of opinion) was committed 12 times, the direct personal attack was committed 12 times and the *tu quoque* variant of the *ad hominem* fallacy was also committed 12 times. Here follows a dialogue where the protagonist A commits the fallacy of evading the burden of proof:

A: In my opinion, you cannot economize on language and literature studies just like that.

B: And what do you base that on?
A: Well, that's logical, isn't it?

In this study, the dialogues were once again situated in the three, by now, familiar discussion domains: (1) A domestic situation; (2) a political debate; (3) a scientific discussion. Once more the most important reason for this is to exclude politeness as an alternative explanation. After all, as was the case in the fallacy of shifting the burden of proof, in evading the burden of proof the request for argumentation on the part of the antagonist is also bluntly ignored and furthermore parried with the suggestive reaction that whoever does not immediately see the obviousness of the standpoint – akin to apparently the antagonist – lacks the most elementary insight into logic: "Well, that's logical isn't it?"

Here are three examples of dialogues in the three discussion domains (respectively domestic, political and scientific) where the fallacy of evading the burden of proof is committed using a reassuring set of words:

A: I think that habit of yours, watching far too much television, is bad for your development.
B: How's that?
A: There can be no two ways about it.

A: I think the Dutch government should have done everything possible to save Fokker.
B: Why should you think that?
A: That speaks for itself.

A: I think smoking is bad for one's health.
B: Why do you think that?
A: Everybody has to agree with that.

To avoid alternative explanations in terms of "deviant types of items," the sound argumentations in the second turn contain also a few phrases of doubt ("How's that?," "Why do you think that?," etc.).

5.4.2 Results

As anticipated, the respondents judged the discussion moves with a fallacy (in a relative sense), on average, to be much less reasonable (3.48(0.55)) than discussion moves without fallacies (4.68(0.87)). This also applies to every type of fallacy individually (see Table 5.2, where every type of fallacy ($k = 12$) was compared with non-fallacies ($k = 12$)).

These results are in accordance with those from our previous empirical study: In all cases the discussion moves with fallacies were deemed less reasonable than moves where no fallacy was committed. Do the respondents also differentiate in reasonableness between the three types of fallacies? Will the direct personal attack again be found to be consistently less reasonable than the *tu quoque* variant, as

Table 5.2 Average reasonableness score per type of fallacy (evading the burden of proof by presenting the standpoint as self-evident, direct personal attack and the *tu quoque* variant) compared with non-fallacies

Type of fallacy	Average	F	p	ES
Evading of the burden of proof	3.04 (0.72)	24.05 (1,47)	0.01	0.24
Direct attack	3.18 (0.77)	32.82 (1,50)	0.01	0.24
tu quoque	4.23 (0.82)	3.83 (1,29)	0.05	0.03
Non-fallacies	4.68 (0.87)			

Table 5.3 Average reasonableness scores per type of fallacy (evading the burden of proof by presenting the standpoint as self-evident, direct personal attack and the *tu quoque* variant), per type of discussion context

	Evading the burden of proof	Direct personal attack	*Tu quoque*
Discussion domain			
Domestic	3.45 (0.72)	3.33 (0.95)	4.02 (1.19)
Political	3.03 (0.99)	3.13 (0.99)	4.78 (0.95)
Scientific	2.63 (0.89)	3.09 (0.88)	3.88 (1.01)

was the case in our previous study? And will the *tu quoque* variant once again be found unreasonable only in a scientific discussion context? From the data shown in Table 5.3 we see that all these questions can be answered affirmatively.

The respondents appear to strongly discriminate between the three fallacies studied ($F(2,47) = 46.69$; $p < 0.01$; $ES = 0.11$). The marginal difference between the direct personal attack and the fallacy of evading the burden of proof is statistically insignificant ($F(1,47) < 1$); the difference between, on the one hand, the direct attack and the fallacy of evading the burden of proof and the *tu quoque*-variant, on the other hand, appears statistically reliable ($F(1,47) = 18.71$; $p < 0.01$), which was also the case with the fallacy of shifting the burden of proof. And just like in the case of the fallacy of shifting the burden of proof, the respondents deemed, without hesitation, the fallacy of shifting the burden of proof a less reasonable discussion move, irrespective of the discussion domain. In the domestic and political discussion domain the *tu quoque* variant was yet again seen as an acceptable discussion move, which was also the case in the previous study: Only in a scientific discussion context was this fallacy yet again considered an unacceptable move.

The respondents appear not only to discriminate between the three fallacies but also – albeit less pronounced – between the three discussion domains ($F(2,38) = 2.33$; $p < 0.05$; $ES = 0.02$). This result is also entirely in line with earlier findings. The fallacies in a scientific discussion (3.20(0.55)) were again judged the most severe (compared with the two other discussion contexts ($F(1,38) = 3.02$; $p < 0.05$)), whilst in this study again no statistical reliable difference could be found between the unreasonableness of fallacies in a political context (3.65(0.72)) or in a domestic context (3.60(0.72)) ($F(1,38) < 1$). These results are also in accordance with our

earlier study and they also confirm our suspicions: When it comes to judging the unreasonableness of fallacies, the respondents let themselves be led primarily by their critical considerations and not so much by considerations relating to politeness.

In order to gain more insight into the exact motives and grounds on which the respondents base their reasonableness judgments, the experiment was repeated on 47 students. This time only 24 dialogues were presented instead of 48 (every combination of independent variables was now represented by 2 dialogues). In half of these 24 cases, the respondents had to account for their judgments in writing.

Even though the number of items in this modified replication was significantly reduced, the quantitative results still showed striking similarities with those of the previous experiment: Sound argumentation is once again found to be much more reasonable than unsound argumentation (5.15(0.66)) versus 3.10(0.76)). By and large, we also see the established relation between the three types of fallacies and the three types of discussion domains (see Table 5.4).[4]

For the purpose of developing a coding system for the motivations given by the respondents, three respondents were asked to think aloud when judging the 24 dialogues in the test on reasonableness. These three respondents responded to the following dialogue (situated in a political discussion context):

A: I personally think that nobody's spending power declined in the last cabinet period.
B: And what do you base that on?
A: Well, I'm absolutely convinced of it.

Table 5.4 Average reasonableness score per type of fallacy (evading the burden of proof by presenting the standpoint as self-evident, direct personal attack and the *tu quoque* variant) per type of discussion context; replication

	Evading the burden of proof	Direct personal attack	*Tu quoque*
Domestic	3.54 (1.05)	3.07 (0.92)	4.44 (1.47)
Political	2.17 (0.92)	2.61 (1.05)	4.63 (1.09)
Scientific	2.72 (1.14)	2.04 (0.93)	2.71 (1.08)

[4]In this replication the respondents also made a distinction between the three types of fallacies in a statistical reliable way ($F(2,14) = 11.69$; $p < 0.01$; $ES = 0.14$). Specific: The *tu quoque* variant is once again, exactly as in the main study, found to be more reasonable than the two remaining fallacies ($F(1,14) = 7.48$; $p < 0.01$), whilst the respondents again did not discriminate in unreasonableness between the direct personal attack and the fallacy of evading the burden of proof. The results concerning the unreasonableness of the fallacies within the three specified discussion contexts were also consistent with those in the main study ($F(2,13) = 8.12$; $p < 0.01$; $ES = 0.09$). The fallacies within a scientific discussion context again appear to be found much less reasonable than those in the remaining two discussion contexts ($F(1,13) = 40.39$; $p < 0.01$); however, unlike in the main study and also unlike in previous studies, the respondents appear in this replication to discriminate between a domestic and a political discussion context: $F(1,13)=10.43$; $p < 0.01$).

Respondent 1:

Well, I think this is um totally unreasonable, yeah, that's not even a sentence, you don't say that, someone like that should be removed from the Senate.

Respondent 2:

B asks a very specific question, "What that is based on?," therefore A should then be able to produce arguments, specific detailed arguments to substantiate what it is based on but B (. . .) does not do that, no, "What do you base that on?", upon which A could then react by giving detailed information to show what it is based on but he does not do that, again he says something um very general like well I'm convinced of it, instead of producing real arguments (. . .) that B can actually use, thus um, I just think so, now shall we just say, very unreasonable, yes very unreasonable, (. . .) he has his point of view and that's that, full stop, over and out, now I'm just convinced of it, finished, the end, end of discussion.

Respondent 3:

Well, that is really stupid, that is no answer to the question (. . .) no, A does not answer B's question and he has to (. . .) very unreasonable indeed, A just wants to make something clear to B and B asks why do you think that and A only says um "I just know": That's just, just . . . well, he should give an answer that um, ah, eh, finally is clear to B just exactly what it is based on, and eh in politics totally convinced is anything but that, I mean this is about facts, this is not about being totally convinced, he should have added something to his answer I'm totally convinced of it because adding with . . .yeah, then it was more reasonable if something came after that, like um some sort of eh evidence, or at least something you could clutch onto.

On the basis of the answers given by these three respondents a classification was made comprising three main categories:

(1) Violating the obligation-to-defend rule (with two sub-categories): (1a) Explicitly referring to the obligation-to-defend rule; (2a) implicitly referring to the obligation-to-defend rule;
(2) Politeness (with two sub-categories): (2a) Impolite due to the phrase used; (2b) impolite due to the violation of a conversational postulate, in this case the non-compliance of a request for further information/argumentation);
(3) Answers that cannot be interpreted/no answer.

In order to illustrate the classification, here are a few examples. The reaction of the first respondent falls into category 2, "Politeness," to be exact, in sub-category 2a "impolite due to the phrase used" ("you don't say that – someone like that should be removed from the Senate").

The considerations and motivations of the second respondent fall into category 1, "Violating the obligation-to-defend rule" ("B asks a very specific question, 'What do you base that on?' upon which A could then react by giving detailed information to show what it is based on, (. . .) but he does not do that, again he says

something um very general like well I'm convinced of it, (. . .) instead of producing real arguments that B can actually use").

The deliberations of the third respondent fall into two main categories, 1 and 2; "he should have added something to his answer I'm totally convinced of it because adding with . . .yeah, then it was more reasonable if something came after that, like um some sort of eh evidence" and in 2 the reaction falls into sub-category 2b, "impolite" due to the violation of a "conversational postulate," in this case the non-compliance of a request for further information ("that is no answer to the question (. . .) no, A does not answer B's question and he has to (. . .) very unreasonable indeed, A just wants to make something clear to B and B asks why do you think that and A only says um 'I just know:' That's just, just . . . well, he should give an answer that um, ah, eh, finally is clear to B just exactly what it is based on"). There is also a lot to be said for an interpretation of the last reaction of the third respondent as a reaction where it is obvious that the person concerned wants to see arguments for a claim so that it can be interpreted as a reaction that can only fall under the first main category – we have deliberately chosen for a coding system that opposes our hypotheses.

With regard to the six dialogues where the fallacy of evading the burden of proof was committed, 301 written explanations, i.e., motives, were given by the 47 respondents in the replication (the total number of explanations exceeds the maximum of 282 because some of these explanations could be brought under more than one of the categories used). Of these 301 explanations, 35.5% of the content could not be interpreted; 52.1% of that could be traced to the pragma-dialectical obligation-to-defend rule ("you have to substantiate;" "if A does not give any arguments, then his opinion makes no sense at all;" "A has to provide evidence." etc.), 5.3% fell into the category "politeness" (with two sub-categories: (1) "You don't say that;" "that is provocative" (2) "no answer given to the question asked"). The majority of the explanations given indicate that the discussion contributions where the burden of proof was evaded by introducing the standpoint as something matter-of-course which requires no defense has in the eyes of the respondents failed in an argumentative sense.

The question is whether in the case of this fallacy of evading the burden of proof the majority of the respondents are capable of putting forward the obligation-to-defend rule in an explicit manner as was also the case of the fallacy of shifting the burden of proof? Or will this percentage now perhaps drop because the respondents have little or no support from the phrases used? As can be deduced from the percentages given above, this percentage drops substantially. In this study, barely 1/3 of the respondents can formulate the rule in an explicit way.

5.5 Evading the Burden of Proof: Personally Guaranteeing the Correctness of the Standpoint

In the hope of wriggling out of the *onus probandi* a protagonist can use phrases with which he, as it were, *personally* vouches for the acceptability of the standpoint: "I can personally assure you, with my hand on my heart that," "You can be rest

assured that," "I guarantee you that," etc. The speaker vouches for the acceptability of the standpoint with his – in some cases alleged – expertise or authority. Prince Bernhard of The Netherlands tried to bring off something similar in an interview published posthumously in the *de Volkskrant* newspaper in which he defended himself against the never-ending allegations that keep popping up about him being a member of Hitler's NSDAP in the 1930s:

> I can declare with the hand on the Bible: I was never a Nazi. (*de Volkskrant*, 14 December 2004)

As was the case in the fallacy of evading the burden of proof using a reassuring set of words, in this fallacy the protagonist also has a whole range of possible standard phrases to choose from to easily ensure that a standpoint is not open to discussion:

> I can personally assure you, with my hand on my heart that
> For me personally, it is beyond doubt that
> If that's not so, I'll eat my hat
> I guarantee you that
> I promise you that
> I assure you that
> I'll put it in writing
> I know what I'm talking about
> I can't imagine anything other than
> I personally guarantee it
> I'm totally convinced that
> You can be rest assured that
> You can bet your life on it
> You can take it from me
> As far as I'm concerned, it's beyond all doubt
> I personally vouch for it

Because the protagonist, with the help of the above-mentioned phrases, personally vouches for the accuracy of his standpoint (to virtually every phrase the epithet "personally" can be added for extra emphasis; e.g., "I personally guarantee you that . . ."), he makes it extremely difficult for the antagonist to pursue his doubt. If the antagonist still perseveres he casts immediate doubt on the protagonist's expertise or even his integrity.

The more or less *apodictical* formulations given above could also be used by the protagonist in a devious way to put the opposing party, as it were, on the spot or to fall for the standpoint or to abandon his trust in the protagonist. The last would mean a loss of face for the protagonist and if at all possible the antagonist will wish to spare him that – at least the protagonist considers this when he makes use of this fallacious move.

Vouching for the acceptability of a standpoint via one's own authority or expertise for the purpose of putting the opposing party under pressure resulting in him casting aside any doubt is a notoriously improper discussion move. In

the pragma-dialectical approach, there are, however, two other types of fallacies distinguished that in one way or another have something to do with authority: The *argumentum ad verecundiam* as a violation of the relevance rule and the *argumentum ad verecundiam* as a violation of the argument scheme rule. It is important to keep the fallacy of evading the burden of proof (by personally guaranteeing the correctness of the standpoint) discussed in this chapter and the two other fallacies apart in a conceptual analytical sense, because the term "authority" plays a different role and in the each of these fallacies a different pragma-dialectical rule is violated.

The *ad verecundiam* fallacy is also known in argumentation theory as bragging about your own qualities where actual argumentation can (may) be expected. Thus bragging is in fact a form of non-argumentation: The speaker throws his own qualities into the fight, exploits character traits, know-how or other qualities so that everybody will take his word for it – in short, he uses his *ethos* to win public support for his standpoint. This fallacy, also known as the *ethical fallacy*, is a violation of the relevance rule (rule 4): "Standpoints may not be defended by non-argumentation or argumentation that is not relevant to the standpoint."

According to Aristotle, compared to the two other means of persuasion *pathos* and *logos*, *ethos* is most effective when looking for approval in an auditorium; if a speaker has a particularly strong *ethos* this can then even make the presentation of arguments for a standpoint totally superfluous. However, when the appeal to *ethos* takes the place of argumentation, from a pragma-dialectical perspective the use of authority becomes fallacious.

In itself there is nothing wrong with using *ethos*; in many cases participants in a discussion have no choice but to accept the authority of the experts. Some subjects require such a lot of specialized knowledge that a layman simply cannot assess the acceptability of the standpoints at issue. Of course, there is something wrong when a person ought to be able to rely on does not have the required expertise or when the professed expertise is totally irrelevant for the issue under discussion, e.g., when somebody deliberately projects himself as a professor and lectures on nuclear energy in that capacity, while he is in fact an expert in speech communication.

In the case of the fallacy of misusing authority, which like the ethical fallacy appeals to expertise and know-how, a standpoint is defended by referring to a so-called authoritative source (a person or a written source) who claims it to be so – whilst in fact the source is not an authority at all. In the case of such an authority fallacy, unlike in case of the ethical fallacy discussed above, argumentation has been put forward but the argument scheme has been incorrectly applied. In fact, this (authority) fallacy is a violation of rule 8, "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 means of appropriate argument schemes that are applied correctly," because this argument scheme rule, and the exact meaning of the accompanying term "argument scheme" will be discussed at length in Chapter 7, we will not pursue the matter here.

5.5.1 Set-up: Material

Of the many possible stylistic variants only the following six will be looked into:

1. I guarantee you that
2. I promise you that
3. I assure you that
4. trust me . . . in the field of
5. take it from me that
6. believe me . . .. in the area of

From the pilot study which took place prior to this study it seems that colorful phrases such as "I can personally assure you, with my hand on my heart that" could not be used due to their stylistic conspicuousness – merely by their succinct appearance the fragments which contain these phrases would be too easily recognized as a similar fragment with the risk that the respondents would find out the purpose of the study. That is why more discreet, less pathetic phrases were chosen like the six examples given above.

The six phrases used in this study, taking Searle's taxonomy of illocutionary acts as a starting point, fall into two groups: The first three ("I guarantee you that"; "I promise you that"; "I assure you that") fall into the category of the "commissives", phrases 4 up to and including 6 ("trust me . . .. in the field of"; "take it from me that"; "believe me . . .. in the field of") fall into the category of the "directives". It is expected that the language users will dismiss both types of speech acts as unreasonable.

It is more difficult to give a prognosis for the difference in unreasonableness between the two types studied: After all it could go either way (on the one hand, phrases 1–3 can come out on top as being the most reasonable, on the other hand, phrases 4–6 could also come out on top. It is conceivable that the phrases which fall into the category of the commissives could be considered less reasonable due to the fact that the propositional content condition is openly violated and therefore the promise is "defective" as a promise, but it is just as likely that the fallacious phrases which fall into the category of the directives will be found less reasonable than the "false" commissives because of the fact that the protagonist with such directive phrases ("believe me now") requests the antagonist in a rather paternalistic way to accept a controversial standpoint purely on a personally title and the authority of the protagonist without him having to present urgent reasons for this. Here follows an example taken from our own material:

> Marjolijn and her friend Karin are sitting in a park while talking to each other about strangers that are walking by. A couple passes. Marjolijn thinks that it is true love, Karin thinks otherwise.
>
> Marjolijn: Why do you think it will go wrong between these two?
> Karin: Oh, just trust me, that boy is afraid to commit himself to a relationship.

Unlike in the preceding studies, the dialogue fragments offered this time were no longer situated in one of the three well-defined discussion contexts (i.e. a domestic

context, a political debate or a scientific discussion). From the context as an independent variable will be abstracted from now on. In previous studies the "politeness" factor appeared to play a marginal, if not negligible role in the judgment of reasonableness – and exactly because of the exclusion of alternative explanations in terms of this "politeness" factor all the dialogue fragments were situated in one of these three specified contexts. The abandonment of the three discussion contexts as an independent variable and the possibility of freely varying the context implies – in principle – huge gains in the areas of external and particularly ecological validity.

In order to homogenize the interpretations obtained from the respondents all the dialogue fragments – also in this new set-up – were offered in a well-defined context, albeit that the context varied per dialogue fragment. That homogenization was necessary to ensure that the respondents when judging the reasonableness of discussion contributions start from more or less the same context and background. In the described context of each dialogue fragment, the situation and the two discussion partners were specified, the standpoint for discussion was elucidated, the nature of the difference of opinion (mixed or non-mixed) was indicated, the role of the discussion partners was specified (who acts as the protagonist and who is the antagonist) and it was made clear in which stage of a critical discussion (the confrontation stage, the opening stage, the argumentation stage – or the concluding stage) the discussion contribution had to be localized, etc.

In order to ascertain if the respondents would deem the fallacious discussion moves where "false" promises were made or "false" persuasiveness was suggested as unacceptable, it is necessary from a methodological point of view, to contrast these fallacious moves with "real" promises and "real" persuasiveness, in short, with non-fallacious equivalents. Here follows an example taken from our own material which contains a "real" promise:

> *Els wants to order three large bouquets for a party. She thinks it best if she picks them up herself. The florist disagrees; he thinks his van would be a better option.*
>
> Els: But why is your van the best way?
> The florist: Because I can guarantee you that your bouquets will stay nicer looking.

The respondents were presented with a total of 32 fragments, 10 of which were sound argumentations and 22 were fallacious. In 5 of the 10 sound argumentations "real" promises were made, the other 5 contained legitimate appeals to trust the speaker. In 5 of the fallacious fragments the burden of proof fallacy was violated using a "false" promise, in the other 5 this violation was committed using a "false" appeal to trust the speaker. The remaining 12 fallacious moves contained a direct personal attack (3 times), a *tu quoque* fallacy (3 times), a fallacy of shifting the burden of proof in a non-mixed difference of opinion (3 times) and a fallacy of evading the burden of proof by introducing the standpoint as something entirely matter-of-course (also 3 times). The function of these 12 fallacious moves – "fillers" actually – is identical to those of the fillers in previous studies: (1) Variation of content and formal variation so that the respondents cannot reach a decision based merely on appearance (2) making stability control possible (the fallacy of shifting the burden

of proof and the direct personal attack will both be found unreasonable, more or less to the same extent, while the *tu quoque* fallacy will lean towards reasonableness).

One hundred and fifty four respondents took part in the study; this test was replicated by 83 students who in 16 of the 32 cases had to give their motives for their judgments of reasonableness.

5.5.2 Results

The fillers behaved as expected: The *tu quoque* leaned towards reasonableness, the direct personal attack and the fallacy of shifting the burden of proof were both found to be unreasonable, more or less to the same extent – in any case much less reasonable than the *tu quoque* fallacy. The fallacy of evading the burden of proof by presenting the standpoint as self-evident behaved as one might have expected from previous studies. See Table 5.5 for the exact results.

As Table 5.6 depicts, both types of sound moves are judged (in an absolute sense) by the respondents to be reasonable but the respondents dismissed their fallacious counterparts. The difference between the sound variant and the unsound variant is significant, both in the main study and in the replication (main study (promise): $F(1,9) = 25.34$; $p < 0.01$; $ES = 0.33$; main study (trust): $F(1,12) = 138.19$; $p < 0.01$; $ES = 0.45$; replication (promise): $F(1,9) = 28.43$; $p < 0.01$; $ES = 0.39$; replication (trust): $F(1,22) = 140.04$; $p < 0.01$; $ES = 0.43$). In this study where the burden of proof fallacy (via personally guaranteeing the rightness of the standpoint) was the main theme, again, those fallacies were found to be less reasonable than their sound counterparts.

So what is now the relation as far as unreasonableness is concerned between the two types of fallacies where the speaker personally vouches for the accuracy of the standpoint? Which type will be found unreasonable, the "false" promise or the "false" persuasiveness based on trust? In the main study there seems to be a substantial difference in favor of the fallacious promise, which is found to be less unreasonable ($F(1,10) = 6.05$; $p < 0.05$; $ES = 0.04$); in the replication the data point in the same direction, but matched against conventional significance criteria the result cannot be confirmed ($F(1,10) = 1.890$; $p < 0.25$;

Table 5.5 Average reasonableness score for the fillers (direct attack, the *tu quoque* variant, shifting the burden of proof, evading the burden of proof by presenting the stadpoint as self-evident), in the main study and in the replication

	Main study (n = 154)	Replication (n = 83)
Direct attack	2.37 (0.86)	2.37 (0.84)
Tu quoque variant	3.50 (1.08)	3.17 (1.23)
Shifting the burden of proof	2.49 (0.90)	2.74 (1.01)
Evading the burden of proof by presenting the standpoint as self-evident	2.06 (0.86)	2.24 (0.94)

Table 5.6 Average reasonableness score for the fallacy of evading the burden of proof by personally guaranteeing the correctness of the standpoint (via a commissive or a directive), compared with non-fallacious commissives and directives, per type of study

	Main study (n = 154)	Replication (n = 83)
Sound argumentation (commissive)	5.18 (0.82)	5.08 (0.85)
Evading the burden of proof (commissive)	3.29 (0.99)	3.07 (0.97)
Sound argumentation (directive)	5.14 (0.92)	4.92 (0.97)
Evading the burden of proof (directive)	2.77 (0.75)	2.68 (0.72)

ES = 0.03). In light of the size of the samples, however, it seems plausible that the difference between the two sorts of evading the burden of proof found in the main study should be considered more important than the result found in the replication.

Do the respondents also see where the fallacy of evading the burden of proof (by personally guaranteeing the rightness of the standpoint) fails from an argumentative point of view? Will they then appeal explicitly to the obligation-to-defend rule (or a verbalized variant thereof), as was the case with the fallacy of shifting the burden of proof? Or will they approach every dialogue fragment as a new, unique fragment without realizing that the violations occurring in this concrete fragment are only a coincidental instantiation of a higher ranked category to which the same abstract discussion rule applies, as was the case with the violations of the freedom rule?

Unlike in the case of the fallacy of shifting the burden of proof, where the vast majority of the respondents were apparently capable of putting together the text given rule in an explicit form "just like that" and could do that invariably at each new dialogue fragment where the fallacy was committed, it appears from the cases studied here that not a single person is capable of putting together the obligation-to-defend rule (or a verbalized variant thereof) in an explicit form. This "dramatic" result leads to the down-to-earth conclusion that when it comes to the fallacy of shifting the burden of proof the respondents have referred to the obligation-to-defend rule to motivate their judgment of reasonableness purely on the basis of the phrases used in the dialogue fragments: "Can you prove that?," "Can you explain that?," "What is that based on?," et cetera. If there is no similar phrase which seems to act as the evocator of the abstract obligation-to-defend rule, then for each fragment the respondents resort to more or less unique principles of factors.

When it comes to the fallacy of personally guaranteeing the rightness of the standpoint even though the respondents are totally incapable of verbalizing the obligation-to-defend rule, most of them are perfectly aware of exactly what goes wrong with this fallacy. The 8 dialogue fragments where the protagonist commits the fallacy of evading of the burden of proof led to 664 comments, 200 of which (= 30%) could not be interpreted (no answer; irrelevant comment such as "I really don't know" or "weak argument"). Of those motives that could be interpreted, 351 comments (= 76%) fell into the group which is indicative of insight into the fallacious nature of this discussion move. Here follow a few examples of the comments given:

> Mr. Blom, the director, thinks that the company should delay expanding due to an unfavorable economy. Mr. de Vries, the manager, thinks that the time is right to be one step ahead of the competition.
>
> Mr. Blom: But aren't we taking too much of a risk?
> Mr. de Vries: I promise you the economy will pick up again within a year and we'll make a fortune.

- because he promises pretty unreasonable things, while he has no influence
- because he cannot manage the economy, he cannot guarantee it
- because the pour soul makes a promise he cannot keep
- because Mr. de Vries certainly cannot predict the future
- because he does not know if he cannot keep his promise

5.6 Evading the Burden of Proof: Immunizing a Standpoint Against Criticism

In an interview in *Mare* (magazine of the University of Leiden) Elise Peters and Vincent van Beest, representatives of the *Leidse Studenten Belangenorganisatie* (Leidse Student Association), reflected on the changes in tertiary education. Elise complains about the indifferent, feeble position of present-day students:

> Students are indifferent (. . .) The student voices his opinion too little, particularly now when there is so much happening in the field of education: Distinctions made in college fees, education rights system, selection at the door. (*Mare*, May 2005)

It is unclear whether Elise Peters means all students when she refers to "students" – no exceptions – or to most students, or perhaps to the average or modal student because there is no quantifying phrase. The same applies to "the student": Who exactly does she mean? A similar "hermetic" formulation of the standpoint could perhaps be a rational, deliberate tactic on her part to evade the burden of proof for her standpoint, but the only way to find out whether or not this is the case is to challenge her to defend her standpoint.

Imagine that someone criticizes Elise's standpoint by casting doubt on it ("Are students really so indifferent?"), or by taking an opposite standpoint and providing counterexamples ("I think students are not at all indifferent. Take Vincent and Lianne as an example"). As a reaction to the criticism there are several courses open to her: She can simply retract her standpoint, she can present arguments for her standpoint, but she can also bring her standpoint forward again by rephrasing it. In the first option, Elise bears the criticism of the antagonist, in the second option she fulfills her obligation to defend. In the last option – and we will confine ourselves to this possibility in which the standpoint is rephrased – two different functions can be ascribed to rephrasing the standpoint: This can serve to bear the criticism to a larger or lesser degree or to dismiss the criticism. If Elise bears the criticism of the antagonist, then she can use the point that was brought forward in her rephrasing of the original standpoint ("Well, I mean that *most* students are indifferent"). However,

she can also resolutely dismiss the criticism and stick to her original standpoint by repeating it (almost) literally: "Students are actually indifferent" or "Students are in essence indifferent" possibly adding such remarks as "The people you mentioned are not actually 'real' students." Via such reformulations as these Elise is actually guilty (not in reality but hypothetically) of committing the fallacy of evading the burden of proof: She (re)phrases the standpoint so that it is in fact immune to criticism.

A difference of opinion can never be resolved in such a way: Essentialistic phrases with quasi-definite (or indefinite) particles withdraw themselves from every empirical testing; such phrases are non-falsifiable, making them unsuitable for attack and defense in a reasonable discussion.[5] In a reasonable discussion, the standpoints that are put forward and called into question have to be defended against critical attacks, but the difference of opinon remains stuck in the opening stage of the discussion and cannot be resolved on the merits if a party phrases a standpoint in such a way that criticism is in principle impossible.

5.6.1 Set-up: Material

Thirty-eight students (4th year high school students) judged the reasonableness or unreasonableness of 49 dialogue fragments consisting of mixed and non-mixed differences of opinion between two discussants. In 12 dialogue fragments, the burden of proof was evaded via immunization of that standpoint:

A: The French are hedonists.
B: Um, you can't say that about Jean and Pierre: They are always complaining.
A: That may be, but in any case, the French are hedonists by nature.

The 12 dialogues where the standpoints are immunized all consist of three turns. In the first turn, speaker A presents a standpoint which contains an unquantifiable phrase that could be characterized as a stereotype ("Students are eager to learn," "Brazilians love to dance," etc.). In the second turn, speaker B reacts by giving concrete counterexamples to negate the stereotype. Speaker A does not allow him-

[5]These types of sayings (about the thriftiness of the Scotts, the dourness of the Friezen, the soberness and tolerant attitude of the Dutch, the "thoroughness" of the Germans, the often mocked effeminity of Frenchmen, etc.) were particular in fashion at the end of the eighteenth, begin nineteenth century in the so-called "Science of national character" (and in the slightly later dialectology, at least in some sub-disciplines of it). These people were particularly inspired by history (the "historia magistra vitae"), e.g., Minister Willem Ockerse (1760–1826) ascribed to Dutchmen such characteristics as "simplicity, moderation, thriftiness, diligence and decorum." In his series of books *Ontwerp tot eene algemeene characterkunde* (1788) where he tried to typify "the" Dutch "national character," based on the study of the earliest Dutch history of the Batavian up to the eighteenth century, he ascribed to the Dutchman an uncompromising devotion to the religious principles, which has undoubtedly something to do with his religious convictions as a protestant minister. The great philosophical problem with these sorts of sayings is their non-refutableness.

self to be swayed by this criticism but sticks to his standpoint and rephrases this by adding an essentialistic expression ("in essence," "by nature," "actually," etc.).[6]

Furthermore in this study four reasonable counterparts were constructed of the fallacies mentioned here. In the non-fallacious fragments speaker A either adjusts his standpoint (for example by adding a quantifying phrase) or retracts his standpoint after B's criticism:

A: The British are rather attached to tradition.
B: On the contrary, most of the Britons I know are revolutionary.
A: I don't mean all the British, but your typical Brit. He is rather attached to tradition.

The remaining fragments partly consist of sound argumentation (13) and partly of "fillers": *Reductio ad absurdum* (6), *argumentum ad hominem* (*abusive* variant) (3), *argumentum ad hominem* (*tu quoque* variant) (3), the fallacy of shifting the burden of proof (3) and the *argumentum ad consequentiam* (5). The fillers (most of them came from earlier studies) should make a stability check or, as the case may be, a validity check possible again; furthermore they have to prevent the participants in this study from becoming aware of the point of this exercise – a danger that is not imaginary considering the conspicuous stereotype nature of the standpoint that A brings forward, the invariable use of essentialistic phrases and the consistent ignoring of the criticism of the antagonist by the protagonist.

5.6.2 Results

The fillers behaved as one might expect based on previous studies: Shifting the burden of proof (2.91(1.28)) was found to be more or less equally unreasonable as the direct attack (2.86(1.04)), whilst the *tu quoque* variant was considered to be a somewhat reasonable move (4.12(0.88)) (Table 5.7

Table 5.7 Average reasonableness score for the fallacy of evading the burden of proof (by immunizing the standpoint) and for the reasonable counterparts

Fallacy of evading the burden of proof (via immunization)	2.93 (0.96)
Reasonable counterparts	4.76 (0.88)

[6]When constructing these 12 dialogue fragments we deliberately chose charged standpoints so as not to mobilise the attitudes of the respondents. We tried keeping the sections of the population with regard to the stereotypes as "neutral" as possible: That is why groups such as the French and Brabanders were chosen and not Turkish, Moroccan or Antillean population groups (in The Netherlands these last groups are often discriminated against). The characteristics ascribed to these groups were, as much as possible, also non-loaded and were in all cases neutral or positive. For example, the Brabanders are ascribed the more or less neutral characteristic of "loving carnival."

In a statistical sense, the fallacy of evading the burden of proof is considered much more unreasonable than its reasonable counterpart, but it very much remains to be seen what value should be attached to this result. It certainly appears that our respondents, despite our efforts to prevent this, found out what the purpose of this study was. This was apparent not only from the post-experimental session, but also from the fact that two respondents, on their initiative, made changes to the nature of the population groups referred to in the immunized standpoints. The stereotype "The French are hedonists" was for example converted to "The Dutch are stingy." From an ecological validity point of view the experiment presented here is the most dubious in the series of all the studies we have carried out.[7] Considering the potential corruptness of the data there is very little point in carrying out a qualitative study into this fallacy – or it would have to substantiate the assumed S-bias.

5.7 Conclusions

The fallacies that fall within the scope of the pragma-dialectical discussion rule for the opening stage and that are not specifically bound to problems related to the division of the burden of proof in mixed differences of opinion are invariably dismissed by ordinary arguers as unreasonable moves. Whether it concerns shifting the burden of proof, evading the burden of proof by introducing the standpoint as something entirely matter-of-course, evading the burden of proof by personally guaranteeing the rightness of the standpoint or evading the burden of proof by phrasing the standpoint so that it is immune to criticism, in all these cases the discussion moves concerned were deemed unreasonable by ordinary arguers in an absolute sense, whilst their sound counterparts were deemed reasonable (though it has all the signs that in the case of evading the burden of proof by immunizing the standpoint the result should be attributed to an experimental artifact, although it is in accordance with the expectations and is consistent with the previous study). These results are, all in all, a positive indication for the conventional validity of the obligation-to-defend rule.

With regard to the fallacy of shifting the burden of proof, it seems that the respondents have in their judgments of the reasonableness or unreasonableness of this fallacy explicitly made use of the obligation-to-defend rule, unlike in the case of the fallacies that fall within the scope of the rule for the confrontation stage. Even though the majority of the respondents are quite capable of verbalizing the fallacy of shifting the burden of proof, this does not mean that they do have the

[7] In retrospect, it was, from a methodological point of view, not such a good idea to bring up the fallacy described here (evading by immunization or its reasonable counterpart) in 1/3 of the dialogue fragments. It was clearly too much of a good thing. Furthermore, the respondents in this experiment were confronted with the fallacious character of evading the burden of proof, with the immunization of standpoints and also with reasonable counterparts where the non-quantified stereotype phrases were rephrased by the protagonist in ways such as: "I don't mean all [X], but the average [X]" (or: "most," or "the modal"). It remains to be seen if our respondents would have seen through the fallacious character of these moves without having this support.

abstract discussion rule at their command and make use of it in a generalizing sense when it comes to judging fallacies of an entirely different type which fall also within the scope of the same pragma-dialectical obligation-to-defend rule. The range of applications of the normative discussion rule on which the respondents say to have oriented themselves, therefore remains strictly confined to and is specifically bound to concrete examples of the fallacy of shifting the burden of proof. That the respondents particularly with regard to this fallacy are capable of verbalizing the obligation-to-defend rule – or equivalents thereof – has to be explained by the use of such phrases as "Can you explain that" and "Can you substantiate that?," which act as succinct evocators for the discussion rule concerned. The results of the studies imply that the obligation-to-defend rule, just as was the case with the freedom rule, does not belong to the conscious normative-critical repertoire of our respondents that can be used in an abstract generalizing sense when judging different concrete phenomenal forms of unsound moves that can be viewed as instantiations of the same abstract category. Nevertheless, irrespective of whether it concerns shifting the burden of proof, evading the burden of proof by presenting the standpoint as self-evident or the fallacy of evading the burden of proof by personally guaranteeing the correctness of the standpoint, the respondents can in all cases clearly recognize and express where the deficient nature of the moves concerned can be traced to in an argumentative sense.

Chapter 6
The Opening Stage: The Obligation-to-Defend (II)

6.1 The Burden of Proof in Mixed Differences of Opinion

In mixed differences of opinion, unlike in the non-mixed differences of opinion discussed in Chapter 5, the parties take an *opposite* standpoint with regard to the same proposition. They are both the protagonists of their own standpoints but are furthermore antagonists of each others standpoints. Both parties are therefore resigned to an *onus probandi* by virtue of the pragma-dialectical obligation-to-defend rule.

In this chapter we will report on the set-up and results of three empirical studies in which somewhat more complicated cases concerning the division of the burden of proof will be studied and the unsound discussion moves associated with it: Evading the burden of proof in *mixed* differences of opinion. As was the case of non-mixed differences of opinion, in the case of mixed differences of opinion – despite the relative simplicity of the classic Roman antiquity rule "Whoever claims, has to defend" meaning "He who alleges something must prove that allegation" – in everyday practice anything and everything can go wrong with determining the burden of proof. An illustration is the comment made by Piet Borst, Professor of Biochemistry, regarding the verdict of the Supreme Court in a long drawn-out conflict between VSM, manufacturers of homeopathic medicines, and the *Vereniging tegen Kwakzalverij* (the Dutch Association against Quackery). This association had, in accordance with their objectives, publicly announced that they gave no credence to the effectiveness of homeopathic medicines as claimed by VSM, particularly with regard to their SRL gel. In the opinion of the Dutch Association against Quackery this gel was "ineffective and/or useless." According to the Supreme Court's verdict, the defendant, the Dutch Association against Quackery, should in the future refrain from issuing these types of negative publications. So an irritated Professor Borst responds:

> Imagine that I am going to sell "Borst" water tomorrow against chronic fatigue. I could use some of that for myself. I admit that Borst water is nothing more than tea, which I have made with my own hand and have watered down a billion times using tap water from my local supplier. I can quite rightly claim without a shred of evidence that Borst water helps against fatigue while the Dutch Association against Quackery may not write that Borst water is ineffective and/or useless, such as all forms of very diluted tea.

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From an analytical point of view both parties – the Dutch Association against Quackery versus VSM – have taken an opposite standpoint about the effectiveness of SRL gel and *both* therefore also have the burden of proof for their own standpoints, as Borst quite rightly points out. In other words: In such cases both parties have an burden of proof and both have to substantiate or, as the case may be, produce evidence to defend that their own standpoint is correct.

In the case of mixed differences of opinion the crucial question is: In which sequence do both parties discharge their burden of proof? Who starts with the defense of his standpoint?

6.2 The Sequential Problem in Mixed Differences of Opinion

In the ideal model of a critical discussion the sequential problem in a mixed difference of opinion will be resolved in the opening stage. For the resolution of the difference of opinion in the ideal model the sequence of who starts is not essential but, practically speaking, it does make a difference to the success of the defense or attack and the discussants have to reach an agreement about this in the opening stage. Various possibilities present themselves. Which possibility can be chosen in everyday argumentative practice by both parties depends, amongst others, upon specific circumstances such as the nature of the standpoint to be discussed, the availability and accessibility of possible evidence et cetera.

In order to resolve the sequential problem in a mixed difference of opinion, the discussants could, for example, make use of the principle that the one who *initiates* the topic also has to be the one to present his argumentation first. At least that way the regular argumentative succession of a more or less standard sequence of moves will be adhered to, namely:

(1) Standpoint-doubt;
(2) Argumentation;
(3) Rejection/acceptance.

Other considerations which might be of help in certain cases are whoever wants to introduce something new also has to be the first to explain why that is such a good idea or whenever someone attacks a generally accepted belief he too has to be the first to justify his attack or the defense should start with the standpoint which is easiest to defend. The sequential problem does not, in principle, have to stand in the way of resolving the difference of opinion.[1]

However, in practice, – and that is the whole point here – the *sequential* problem is often represented in a devious way by one of the parties as a *choice*

[1] Van Eemeren and Houtlosser (2003) show that the sequence in which parties have to defend their standpoints depends on the pragmatic *status quo*.

problem, – and in doing so that party commits an obvious fallacy: Evading the burden of proof. Using this discussion trick one party tries to put the burden of proof *solely* on the other party, for example, when that party attacks an established opinion, a prevailing tradition or an existing state of affairs. The burden of proof rests in this fallacious point of view *exclusively* with the one who wants to change the *status quo*: he has to defend that the alternative, which he propagated, should be preferred – arguments for his own standpoint where the *status quo* is maintained do not have to be adduced. A typical example of evading the burden of proof stems from an essay of Fenigsen in which he makes critical comments about euthanasia:

> Those who wish to change the status quo have to produce evidence that a change is for the better. (Fenigsen, 1987, p. 43)

6.3 The Presumption Principle and the Sequential Problem in Mixed Differences of Opinion

In fact the fallacy discussed here, evading the burden of proof in mixed differences of opinion, appeals to the *presumption principle* from which our criminal law starts: As long as the guilt of a suspect is unproven, he will be thought of as innocent. The suspect himself does not need to defend that he is innocent: It is up to the district attorney to defend his guilt. In short, the burden of proof rests with the prosecutor, exactly the same as in classic Roman procedural law. Using the terminology taken from criminal law it could be said that the *status quo* enjoys the status of presumption.

The following example also shows how this presumption principle is strategically exploited by one of the parties in order to put the burden of proof *solely expressis verbis* on the other party. The example is an excerpt from an article written by the economist A. Kapteyn who got himself involved in a debate about a shorter work week.

> Supporters of a shorter work week ask objectors to show that a shorter work week really has unpleasant consequences such as a drop in demand or ossifying the business. It is a good custom that supporters of drastic measures (and a shorter work week is terribly drastic) show that such a measure has a favorable effect and not that others have to defend that it might have disadvantageous consequences.

Of course, there is no fallacy of evading the burden of proof in mixed differences of opinion if in the opening stage both parties agree to follow the sequence of defense according to the presumption principle: First the antagonist of the standpoint, who has been assigned the status of presumption, has to discharge his burden of proof – subsequently the other party who defends the presumption standpoint. Evading the burden of proof is not an issue in this case as both parties have managed to successfully discharge their own *onus probandi*.

Even though in certain cases the presumption principle can offer a solution to the sequential problem it cannot be generally applied: Not every discussion is about

changing the *status quo*. If one wishes to go to the movies and the other wishes to go to the bar, or whenever one wishes to invest their extra bonus and the other prefers to put it in the savings account, then the presumption principle offers no solution.

The meaning and the implication of the juridical term *presumption* for the defense of the burden of proof in everyday discussions has been discussed for a long time by argumentation theorists. It is beyond the scope of this book to review all the theoretical views; our main emphasis is on all the empirical study. We will confine ourselves to a brief explanation of a few points of view concerning "presumption" as far as they are relevant to the set-up of the empirical study into evading the burden of proof.

In argumentation theory, the term *presumption* has become well-known thanks to the work of the nineteenth century logician Whately. He argued in his *Elements of Rhetoric* (1846) that the *juridical* term *presumption* can be fully applicable to non-juridical, everyday argumentation. Whately defined "presumption" as follows:

> According to the most correct use of the term, a "Presumption" in favor of any supposition, means, not (as has been sometimes erroneously imagined) a preponderance of probability in its favor, but, such a *pre-occupation* of the ground, as implies that it must stand good till some sufficient reason is adduced against it; in short, that the *Burden of proof* lies on the side of him who would difference of opinion it (Whately, 1846, p. 112).

A number of characteristics, important for our empirical study, which incidentally keep returning in later theoretical views of "presumption," are in essence already present, in Whately's description. In a discussion, a presumption serves as a common starting point that applies *pro tempore*, i.e. until sufficient evidence has been produced that makes revision necessary (it must stand good till some sufficient reason is adduced against it). Presumptions act in everyday discussions definitely not as irrefutable, infallible truths (neither in an ontological sense nor in an epistemological sense) but as a *prima facie* accepted starting point that in the course of the discussion can be revised or falsified, if necessary.

A characteristic associated with presumption is that the presumption is not absolute but gradual: The strength of the presumption can vary. Some presumed standpoints seem stronger than others, for example, "Smoking is bad for your health" is slightly stronger than "Sport is good for people." However, the most important and prominent characteristic is that, at least in Whately's eyes, the person who in an everyday discussion puts forward a standpoint that can be given the status of presumption has no burden of proof – exactly the same as in a juridical situation, the institutional context that Whately borrowed for his views on presumption. The *onus probandi* rests solely on the one who questions the presumption – and in Whately's opinion that is always the person who rebels against the *status quo*: "The usual, normal, traditional state of affairs" that "stands" until, on the basis of convincing arguments, changes or revision are required.

By the way, the *status quo* cannot always be objectively determined: New insights that come to light with the passage of time can influence the *status quo*. The *status quo* can differ per community, even per person. An illustration of all of this is

Whately's example of Christianity. When Christianity was not yet widespread the presumption of course worked against it. But now, in this day and age: 1846, the logician and also archbishop Whately triumphantly wrote that

> the case is reversed. Christianity *exists*; and those who deny the divine origin attributed to it, are bound to show some reasons for assigning to it a human origin (1846, p. 116).

Anyway, Whately's opinion about the role of presumption and the allocation of the burden of proof attached to it is not only rather conservative in nature but on top of that it basically breaches the pragma-dialectical obligation-to-defend rule: Whether or not someone has the presumption on his side is irrelevant to the question whether that person has the burden of proof or not – for where the status of presumption can be awarded it does not matter if in the standpoint a generally accepted opinion is expressed to which a status of presumption can be assigned or a completely new plan which involves a radical break with the *status quo*; in either case the discussant has, in accordance with the pragma-dialectical obligation-to-defend rule, the whole burden of proof for his own standpoint.[2]

Apart from the presumption principle, there is yet another criterion that can, in some cases, offer a solution of the sequential problem in mixed differences of opinion: The *principle of fairness*. Specific circumstances could arise where a discussant puts forward a standpoint (or, as the case may be, is forced to put forward standpoint) that is impossible for him to defend because he, for example, does not have the relevant information available. Because it is practically impossible for one of the parties to meet his burden of proof, it is entirely obvious that the parties have agreed in the opening stage that the burden of proof solely rests with the opposing party.

A similar situation arises pre-eminently in the case of certain types of accusations:

A: You've been sleeping around!
B: What?
A: Prove to me you haven't then.
B: No, *you* accuse me – how can I ever prove that I haven't been sleeping around?

The criterion to which the discussion partners in this precarious situation can appeal to is what is known in the civil procedural law as the principle of fairness. This principle implies that in the case of defense one has to start with the standpoint that is the easiest to defend.

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[2]Incidentally, this rule does not apply wholly or unconditionally – exactly as is the case in non-mixed differences of opinion there are situations one could think of where it is perfectly reasonable that the protagonist is released from his *onus probandi* (for example if the protagonist has already defended the same standpoint in the presence of the same antagonist, while yet nothing has changed either in the starting points or in the discussion rules or when the protagonist has a challenger who will not commit himself to anything nor abide by any rules).

6.4 The Role of Presumptions in Shifting and Evading the Burden of Proof

In the empirical study which this chapter reports on, two different types of fallacies will be studied: (1) The fallacy of shifting the burden of proof; (2) the fallacy of evading the burden of proof.

The first one deals exclusively with non-mixed differences of opinion, in the second type we will confine ourselves merely to mixed differences of opinion.

The first type of fallacy has already been investigated (see Chapter 5) but will be involved in this study once again – due to, amongst others, the need of stability control. What is new in this particular investigation is the role of presumptions in both shifting and evading the burden of proof. In both types of difference of opinion the presumptive status of the standpoints will be manipulated, i.e. the dialogues will contain standpoints to which respectively the status of presumption or the status of non-presumption can be assigned (hereafter referred to as presumption standpoint respectively non-presumption standpoint). Crossing the (independent) variables "type of difference of opinion" and "nature of the standpoint" results in the design that is visualized in Table 6.1

Table 6.1 Completely crossed facet design, with as independent variables "type of difference of opinion" and "nature of the standpoint"

	Type of difference of opinion	
	Non-mixed	Mixed
Nature of the standpoint		
With presumptive status	Shifting the burden of proof	Evading the burden of proof
Without presumptive status	Shifting the burden of proof	Evading the burden of proof

Each of the four classes in this design will be represented by four dialogues, as is usually the case in our experiments, where we make use of a multiple message design in combination with a repeated measurement design.

It is expected that (1) ordinary arguers will find both the fallacy of shifting the burden of proof and the fallacy of evading the burden of proof to be unreasonable. Nonetheless, ordinary arguers will not be insensitive to the influence of the presumptive status of a standpoint. We therefore expect that (2) both fallacies will be found less unreasonable whenever these fallacies are committed by someone who can appeal to the presumptive status of his standpoint.

6.4.1 Set-up: Material

In order to be able to construct the right kind of standpoint for the test dialogues for the standpoint in question (what exactly can be presumed?) a separate preliminary study was carried out. Thirty respondents between the ages of 20 and 30 were presented 41 standpoints which were dichotomized in 2 categories beforehand (1) "possible presumption standpoint" (19 in total) and (2) "possible non-presumption

standpoint" (22 in total). "Smoking is bad for your health" is an example of the first category, while "Children should grow up with pets" is an example of the category of supposed non-presumption standpoints. The respondents were asked to indicate on a scale of 1–5 what, according to them, most Dutch people would think of a certain standpoint: Totally agree, agree, neutral, disagree, totally disagree. Although a number of respondents said they found it difficult to disregard their own opinions about the subjects involved, the results of this study are unequivocal: Supposed presumption standpoints such as "Sport keeps people healthy" and "Brush your teeth if you want to keep them," can clearly be classified as presumption standpoints on the basis of the frequency distribution of the answers (for example: 15 respondents are of the opinion that the average Dutchman will "totally agree" with the standpoint "Sport keeps people healthy," the other half think that the average Dutchman will "agree": For "Brush your teeth if you want to keep them" the frequencies in the response categories are respectively 20 (totally agree), 10 (agree), 0 (neutral), 0 (disagree), 0 (totally disagree). The same type of pattern that can be unequivocally interpreted also emerges in the supposed non-presumption standpoints (for example: "The darker the bedroom, the sounder one sleeps" (frequency division 1 (totally agree), 6 (agree), 15 (neutral), 7 (disagree), 1 (totally disagree)) or "Cold winters are followed by warm summers" (frequencies in the response categories are respectively 7, 12, 10, 1 and 0).

The presumption and non-presumption standpoints obtained from this preliminary empirical study are completely in accordance with the intuitive *a priori* hypothetical dichotomy. On the basis of the outcomes of this preliminary study, it appears relatively easy to choose 16 standpoints from the original list totaling 41 standpoints that are an adequate representation of the category "standpoints that can be assigned a presumptive status" and the category "standpoints that cannot be awarded a presumptive status." Should the presumption principle not play a significant role (which we think unlikely), then we can exclude one possible alternative explanation for those unexpected results of this study, namely that the negative results can be put down to inadequate construct validity of the term *presumption*.

Fifty respondents were presented 40 dialogue fragments. In 16 of those fragments shifting or evading the burden of proof takes place (each category in Table 6.1 was represented by 4 instantiations). There was sound argumentation in 10 fragments while the remaining 14 fragments contained violations of the freedom rule (namely the *argumentum ad baculum*, the *argumentum ad misericordiam*, and the *abusive* variant, the *circumstantial* variant and the *tu quoque* variant of the *argumentum ad hominem*). In order to ensure that the respondents departed from the same context and background when judging the reasonableness of the discussion contributions, the fragments – just like in all the previous studies – were offered in a well-defined context.

The 16 fragments where there was a violation of the obligation-to-defend rule were all constructed according to the same fixed pattern. The mixed differences of opinion all comprised of four turns: In the first turn A, the protagonist, brings forward a presumption or non-presumption standpoint. In the second turn B, the antagonist, responds with the opposite standpoint, after which A, in the third turn,

amongst others, challenges B to come up with arguments or to give reasons for his standpoint. The formulation of doubt consistently remains the same in all cases. This is always twofold: Casting doubt, followed by a challenge, for example, "How's that? Explain it to me then." In the last turn, B puts the burden of proof solely on A by remarking that it is not him, but A who has to come up with arguments. This last turn is, qua formulation, also kept under strict control. We deliberately did not use phrases which could be traced directly back to the obligation-to-defend rule, such as "You make the claim, so you have to provide the arguments."

Here are a few examples from the material offered:

(mixed difference of opinion, presumption standpoint; evading the burden of proof)

Journalists during their lunch break.
A: Everybody needs a holiday from time to time.
B: A typical middle-class remark. I totally disagree.
A: Why not, explain it to me then.
B: You must be joking, *you* should be explaining it to me.

(mixed difference of opinion, non-presumption standpoint; evading the burden of proof)

Driving instructors at a meeting.
A: I still think it's best to drive yourself from the very first lesson.
B: I don't think that at all.
A: Why's that? Please explain.
B: Now it's getting interesting. *You* should be the one to explain why to me.

The dialogue fragments with non-mixed differences of opinion always comprise three turns. In the first turn A brings forward his standpoint (to which a presumptive status, respectively a non-presumptive status can be awarded), in the second turn B casts doubt on this standpoint, while in the third turn A shifts the burden of proof fallaciously by remarking that it is not him, but B who should be the one to come up with arguments. Two more examples:

(non-mixed difference of opinion, presumption standpoint; evading the burden of proof)

Teachers during a meeting of teachers.
A: Sport keeps people healthy.
B: Actually, I'm not so sure, why do you think that?
A: Well you explain why it's not healthy.

(non-mixed difference of opinion, non-presumption standpoint; evading the burden of proof)

Husband and wife in the living room.
A: The darker the bedroom, the sounder one sleeps.
B: How come?
A: Well, you tell me why that's not so.

Half of the 10 non-fallacious arguments consist of three turns; the other five consist of two turns. To exclude alternative explanations, a number of these non-fallacious fragments have been deliberately constructed in such as way that they are, qua form, identical or very similar to those of the fallacious fragments. Another example:

(mixed difference of opinion, non-presumption standpoint; non-fallacious argumentation)

Mother and daughter in the kitchen.
A: I can cook alone tonight, I'll manage just fine.
B: I don't think that's a good idea.
A: Why do you think that?

From the 14 fragments with fallacies that fall within the scope of the obligation-to-defend rule, half of them comprise three turns, the other half comprise two turns. The function of these 14 fragments is twofold: In the first place they serve as a "filler" to mask the purpose of this study and to force the respondents time and time again to examine each fragment carefully to find out exactly how the fragment is put together and by which participant, and where, a possible *faux pas* is committed. The most succinct alternative explanation for a positive result from the study concerning violations of the obligation-to-defend rule is – as appeared to be the case on several occasions in the previous chapter – the apparent form of the dialogue fragments: These fragments end virtually all with comments such as "yes, you should prove that," "no, it's up to you to come up with arguments," etc. The very similar apparent form (and in the study discussed here exactly half of the 40 fragments were offered more or less in this way) could tempt the respondents, assuming they have seen through the identical pattern, to simply look at these phrases when giving their reasonableness score ("Oh, yeah, I've just had one like that too – that wasn't right then either") and not based so much on "critical content grounds." The fillers have to make sure there is enough variation (in the apparent form) and that is also the intention of the inclusion of a few non-fallacious fragments.

In the second place, the fillers, which all contain violations of the pragma-dialectical freedom rule, should make it possible to check – once again – the stability of the results. From our previous empirical studies we not only know how reasonable or unreasonable our ordinary arguers think these fallacies are, but also the relative position on the reasonableness scale compared to each other (see Chapter 4). In a nutshell, the *argumentum ad baculum* is found to be the least reasonable and the *tu quoque* variant of the *argumentum ad hominem* the most reasonable.

6.4.2 Results

Do the respondents consider evading the burden of proof in the case of standpoints where presumption plays a role less unreasonable, or does the presumptive status of standpoints play no significant role in their judgments? In Table 6.2 the results are presented that are relevant to answer these questions.

In this study the fallacy of shifting the burden of proof (see the left-hand side of Table 6.2 under the heading non-mixed) also appears, in an absolute sense, to be judged as an unreasonable move, irrespective of whether the standpoint has or has not a presumptive status. Furthermore, this fallacy appears, in a relative sense, to be found much more unreasonable than the non-fallacious argumentation, which – on average – is found to be reasonable (5.63 (0.66)). The (*a priori*) contrast between, on the one hand, the non-mixed fragments with presumption standpoint and, on the other hand, the fragments with non-fallacious argumentation is significant ($F(1,11) = 87.64$; $p < 0.01$; $ES = 0.65$) as is the contrast between the non-mixed fragments without presumption standpoint and the fragments with non-fallacious argumentation ($F(1,9) = 65.67$; $p < 0.01$; $ES = 0.66$). These results are entirely in line with the results obtained from previous studies and they give reassurance to the stability and the general applicability of the findings.

What has been established above about the unreasonableness of the fallacy of shifting the burden of proof applies equally to the fallacy of evading the burden of proof in mixed differences of opinion (see right-hand side of Table 6.2): This fallacy too is (in an absolute sense) judged as an unreasonable discussion move and this fallacy is found (in a relative sense) to be much more unreasonable than non-fallacious discussion contributions (contrast between evading the burden of proof with presumption standpoints versus non-fallacious argumentation: $F(1,7) = 25.36$; $p < 0.01$; $ES = 0.56$; contrast between evading without presumption standpoint versus non-fallacious argumentation: $F(1,10) = 70.33$; $p < 0.01$; $ES = 0.65$). Both the fallacy of shifting the burden of proof and the fallacy of evading the burden of proof (in mixed differences of opinion) are therefore found to be unreasonable discussion moves in an absolute sense; moreover, both fallacies

Table 6.2 Average reasonableness score for the fallacies of shifting the burden of proof and evading the burden of proof, per type of difference of opinion (mixed versus non-mixed) and per type of standpoint (with presumptive status versus non-presumptive status)

	Type of difference of opinion	
	Non-mixed	Mixed
Nature of the standpoint		
With presumptive status	2.78 (0.85) shifting the burden of proof	2.61 (0.80) evading the burden of proof
Without presumptive status	2.66 (0.80) shifting the burden of proof	2.59 (0.96) evading the burden of proof

are found to be substantially more unreasonable (in a relative sense) than discussion contributions where no pragma-dialectical discussion rule has been violated. All the same respondents regard both types of fallacies equally unreasonable, i.e. they do not – from a statistical point of view – make a reliable distinction in unreasonableness between the fallacy of shifting the burden of proof (2.72) and evading the burden of proof (2.60); F((1,20) <1).

A remarkable result of this study is that the presumptive status of standpoints hardly influences the judgment of the respondents: It is true, in accordance with our expectations, that the respondents tend to judge the fallacies with a presumption standpoint somewhat more leniently than those without a presumption standpoint but this marginal difference appears to be insignificant ($F(1,14) = 1.12$; $p > 0.05$).[3]

The results regarding the fillers – the fallacies where the freedom rule is violated – are, in general, in accordance with previous findings (see Table 6.3).

[3]The expected values for the statistical model (with two fixed factors A (in this case type of difference of opinion) and B (in this case presumption or non-presumption standpoint), a random factor respondent (in this case r) which is crossed with A and B and with the random factor replication (in this case w(AB), which in its turn is nested within the interaction of AB) that lies at the bottom of these statistical tests are unknown – that is why sum of squares we developed them ourselves making use of the existing algorithms. The expected values for the quadrate sum of the 9 sources of variance which appear in the statistical model can be formulated as follows (for this purpose we used the following conventions: We use capital letters to indicate fixed factors, identical lower case to show the relevant levels of the factor. Random factors are given in lower case; nested factors are also shown in lower case but with the factor nested behind it in parenthesis. Variance components for random factors are indicated with σ^2, fixed factors with θ^2).

1. A: $bwr\theta^2_A + r\sigma^2_{w(AB)} + bw\sigma^2_{A \times r} + \sigma^2_{w(AB) \times r} + \sigma^2_e$
2. B: $awr\theta^2_B + r\sigma^2_{w(AB)} + aw\sigma^2_{B \times r} + \sigma^2_{w(AB) \times r} + \sigma^2_e$
3. w(AB): $r\sigma^2_{w(AB)} + \sigma^2_{w(AB) \times r} + \sigma^2_e$
4. r: $abwr\sigma^2_r + \sigma^2_{w(AB) \times r} + \sigma^2_e$
5. A × B: $wr\theta^2_{A \times B} + w\sigma^2_{A \times B \times r} + \sigma^2_{w(AB) \times r} + r\sigma^2_{w(AB)} + \sigma^2_e$
6. A × r: $bw\sigma^2_{A \times r} + \sigma^2_{w(AB) \times r} + \sigma^2_e$
7. B × r: $aw\sigma^2_{B \times r} + \sigma^2_{w(AB) \times r} + \sigma^2_e$
8. w(AB) × r: $\sigma^2_{w(AB) \times r} + \sigma^2_e$
9. A × B × r: $w\sigma^2_{A \times B \times r} + \sigma^2_e$

From the expected values given above, it may be concluded that a regular F ratio for example, testing the effect of the fixed factor A (it could equally have been of B or of the interaction AB) is not present. That means for the statistical testing of these effects that quasi Fs have to be constructed. As far as the statistical testing of fixed factor A is concerned, we have, on the basis of the above expected values, compiled a quasi F for both the numerator and the denominator from the composites of MS-terms: (MS(A) + MS (w(AB) × r))/(MS(w(AB) + MS(A × r))). The non-unicity of this quasi F stems from the fact, amongst others, that testing the effect of A could equally have been carried out via (MS(A) – MS(w(AB)))/(MS(A × r) – MS(w(AB) × r)). The obvious disadvantage of this last procedure is, of course, that the resulting (quasi)F in principle can also have a negative number as an outcome.

Table 6.3 Average reasonableness score of the fillers

Argumentum ad baculum	1.91 (1.02)
Direct attack	2.44 (0.62)
Indirect attack	3.67 (0.78)
Tu quoque attack	4.24 (1.10)
Argumentum ad misericordiam	4.78 (0.77)

Where there are differences – and that applies particularly to the *argumentum ad misericordiam* – these can be explained.[4]

6.4.3 The Necessity of Replication

To summarize, it can be concluded that ordinary arguers deem the two types of fallacies studied here, (1) shifting the burden of proof (in non-mixed differences of opinion) and (2) evading the burden of proof (in mixed differences of opinion) unreasonable discussion moves. That presumption in both non-mixed and mixed differences of opinion plays no significant role in the negative judgment on these fallacies corresponds with the pragma-dialectical norm: Whoever asserts, has to defend – irrespective of the status of the standpoint to be defended

However, there are (at least) three reasons we could give to show some restraint here. First, from a cognitive point of view, the fragments where the division of the

[4]The average score for the *argumentum ad misercordiam* is unlike in the previous study on the (too) high side. In previous empirical studies this fallacy had a position between, on the one hand, the abusive variant and, on the other hand, the *tu quoque* variant of the *argumentum ad hominem.* However, this deviation can be explained: Apart from possible sampling errors (unlike in the previous study where the *argumentum ad misericordiam* was represented by at least 4 replications, in this study there are only 2 replications present) the high average can be explained from the fact that in both fragments where this fallacy appears something strange or odd happens. The very first fragment that was presented to the respondents contains an *argumentum ad misercordiam* (average 4.16). The respondents at that stage perhaps have no idea of how reasonable or unreasonable the other fragments are and therefore judge moderately (neither reasonable nor unreasonable). Furthermore, nota bene, it is in that very first fragment that a student puts her teacher under pressure: "(Teacher and students in one classroom). A: This paper is only worth a D. B: You can't do that to me, I spent more than a month working on it." There is also something wrong with the second representative of the *argumentum ad misericordiam*; here is an example: "(Councilmen and councilwomen in a meeting). A: The city council should leave the Bronx in tact. B: No, it's about time the city council started demolishing that ramshackled area. A: But we can't do that to all the old people who have lived there all their lives, can we now?" This tactic of appealing to pity is typical of the so-called *altruistic* variant of the *ad misericordiam* fallacy, which we mentioned earlier. As expected the respondents deemed this variant much less unreasonable than the so-called egocentric variant. In this last variant, the opposing party is blackmailed emotionally by causing compassion with the person of the antagonist; in the altruistic variant, the opposing party is put under emotional pressure by "only" causing compassion for one or more persons other than the antagonist. Furthermore, and that is what this issue is all about, that last altruistic argument of A could simply be explained as a type of pragmatic argumentation and therefore not as fallacious argumentation.

burden of proof is brought up and particularly the fragments dealing with mixed differences of opinion, are possibly so complicated that it is virtually impossible for the respondents to consider the exact contents of the standpoints in their judgments. The respondents have to consider no less than four turns in order to be able to reach a balanced judgment – that is perhaps a little bit too much to ask given the cognitive skills of the judging respondents.

Second, in this study, the term "presumption" is – deliberately by the way – put into practice in a quite restrictive way: The presumption standpoints are without exception sayings which in Rescher's terminology (1977) could be classified as "truth candidates." The discussants did not exploit the *status quo* as a presumption, in a strategical sense, in any of the dialogue fragments nor was the exceptional position of the accusations studied.

Third – and, exactly as in the first point, this only applies to the fallacy of evading the burden of proof – the place and/or position of the presumption standpoint could be criticized in light of the total conversation. In all fragments with presumption standpoints it is B, the antagonist of the presumption standpoint, who commits the fallacy of evading the burden of proof. However, it is more realistic and much more in harmony with the views of argumentation theorists not to let the *attacker* of a presumption standpoint commit the fallacy of evading the burden of proof, but the person who *supports* this presumption standpoint (exactly as it was realized in the fragments where the fallacy of shifting the burden of proof was committed). A "modified" replication is therefore offered in which these possible objections have been overcome.

6.5 Explicit Verbal Indicators as to the Presumption Principle and Evading the Burden of Proof

Considering the nature of the comments on the previous experiment, in this "modified" replication only the fallacy of evading the burden of proof in a mixed-difference of opinion has been studied. The comments were related mainly to possible errors in the design of that part of the experiment where the fallacy of evading the burden of proof featured predominantly.

6.5.1 Set-up: Material

In this replication the complexity of the dialogue fragments presented to the respondents was considerably reduced: The number of turns of which a discussion consists of has been brought back from four to two. This reduction has been made possible by clearly sketching the situation preceding the dialogue fragments. In those sketches it was explained exactly what the difference of opinion entails, who acts as the protagonist and who is the antagonist of a certain standpoint, what is the identity of the discussion partners etc. To put it briefly, information like this should provide

the assessor with enough insight into the nature and the result of the confrontation stage. Here follows an example taken from the material offered in the replication:

John has bought tickets for a concert by a popular rock band. His classmate Peter thinks that the music the band has been playing of late is nowhere as good as it was.
Peter: You're not going to tell me you've bought tickets, are you? Nobody listens to that music any more.
John: Look who's talking! *You're* the one that bought their latest CD, not me!

A clear explanation before the discussion takes place, such as in the above example, also functions to exclude a possible alternative explanation in terms of sequence. The respondents could show the tendency to assume that the person who brings his point of view forward first, has to be the one to defend first. When sketching the situation, as far as possible it should be left in the middle as to who initiated the discussion, for example, by remarking "A and B have a difference of opinion about *p*." Furthermore, the speaker in the fist turn is not always the first-mentioned person in the sketch – once again to exclude an explanation in terms of sequence.

In the replication the presence or absence of a standpoint is manipulated as an presumption independent variable. In the discussion fragments in which the burden of proof has been solely put on the other party by one of the discussion partners, presumption standpoints (where applicable) are offered which can be categorized into three different classes: (1) Truth candidates, (2) changes/revisions, (3) accusations. These classes, theoretically, form a more adequate "cover" of the term *presumption* than was the case in the previous study. Every class (thus also the class "no presumption standpoint") in the replication is represented by four fragments. Here follows an example of each class:

(truth candidates)

Hank thinks, in general, it is easier for Dutch high school students to learn French than it is to learn English. Ellen thinks that is rubbish. She thinks English is easier.
Hank: Why do you think English is easier?
Ellen: I don't need to explain that! *You* should explain why you think French is easier.

(changes/revisions)

Walter thinks that the maximum speed limit in The Netherlands should be increased to 150 kilometers per hour. As far as Billy is concerned that is totally unnecessary and it should stay at 120 kilometers per hour.
Walter: Why do you think it should stay at 120 kilometers per hour?
Billy: No, *you* should explain why you want it increased to 150 kilometers per hour.

(accusations)

Robert and Anita are fighting. Anita accuses Robert of sleeping around. Robert denies that.
Anita: Then prove you've not been sleeping around.
Robert: No, you prove that I *did*.

(no presumption standpoint)

There is a discussion within a political party about the competence of Mr. Smith heading the list of candidates. Mrs. Wilson thinks Mr. Smith is unsuitable; on the other hand, Mr. Martin thinks he is suitable.
Mr. Martin: Could you explain why you think Mr. Smith is incapable of heading the list of candidates?
Mrs. Wilson: It's up to you to explain why he *is* suitable.

In 16 fragments, exactly half of the total number of fragments offered, the burden of proof is put solely on the other party in the last turn. In the case of "accusations" particular attention has been paid to construct the fragments so that it is impossible for the accused to defend his innocence (see the examples given above). Seen from a normative point of view, the fragments in this class are – as already mentioned – non-fallacious fragments.

Furthermore, all 16 experiments are constructed in such a way that the discussion always takes place in the opening stage: The standpoints were not under discussion, but the question which of the participants in the discussion concerned had to defend his standpoint. A preliminary empirical study, such as in the previous example, to ascertain the exact nature and status of the truth candidates has deliberately not taken place because – as found earlier – intuitions regarding this appeared to be completely consistent with the empirical data obtained.

In the 16 experimental fragments where the burden of proof (fallacious or otherwise) was evaded, the last turn invariably contained quite definite "burden of proof" phrases such as: "You should explain why you think that…" and "I don't need to explain anything." When using less definite phrases for evading the burden of proof the sequential problem could have popped up again: The respondents could have interpreted the last phrase in a fragment as "I think that you should defend your standpoint *first*, and then I'll do it." However, keeping the phrases under control has a distinct disadvantage in that the fragments, qua form, all look very much alike. There is the invariable "Can you explain why you think that *p*," to which the antagonist replies: "No, you should explain that *p*." By using such phrases as "Yeah, I've explained that 10 times already" in the fillers and in the non-fallacious argumentations it has been attempted to mask the point of the study and to force the respondents to make a serious consideration, irrespective of the appearance of the fragments.

The remaining 16 non-experimental fragments contain 6 fillers, in this case all "old favorites", fallacies against rule 1 consisting of the *abusive* variant of the

argumentum ad hominem, the *tu quoque* variant and the fallacy of declaring a standpoint taboo. Just as in previous studies, the fillers make a stability control possible: Comparatively speaking the *tu quoque* variant should be found the most reasonable, whilst the *abusive* variant of the *argumentum ad hominem*, qua reasonableness, should be virtually the same as the fallacy of declaring a standpoint taboo. In the other 10 non-experimental fragments there is no violation of discussion rules so that sound argumentation is put forward. The presence or absence of a fallacy acts as a second independent variable in this replication. Below are examples of a filler (in this case the fallacy of declaring a standpoint taboo) and of a sound dialogue fragment.

Filler (the fallacy of declaring a standpoint taboo)

During a town council meeting Councilman Mr. Kramer strongly objects to plans to develop the city. His colleague Mr. Visser agrees with the plans.
Mr. Visser: What's your objection to these plans?
Mr. Kramer: Can't we change the subject? I don't want to discuss these development plans.

Fragment without violating the discussion rule

There is a discussion at a council meeting about felling trees. Councilwoman Mrs. Clinton thinks that the trees have to be cut; her colleague Mr. Munro thinks the trees should stay.
Mrs. Clinton: What do you have against felling the trees?
Mr. Munro: I've already explained that to you; this is about the last bit of green in the area and we don't want to loose that.

The presence or absence of verbal indicators for a (fallacious) appeal to the presumption principle acts as the third independent variable. In every experimental study where the judgments of the respondents is examined, it is rather difficult, on the basis of the quantitative results alone, (without subsequent extensive oral interviews where the respondents can explain and motivate their judgments), to infer their considerations leading to a positive or negative judgment about the reasonableness or unreasonableness of discussion contributions. For example, do they really reject the fallacy of evading the burden of proof in a mixed difference of opinion on the basis of the fact that one of the parties "messed around" with the division of the burden of proof? In order to obtain more insight and certainty – on the basis of quantitative data – half of the respondents, as it were, were reminded of the facts concerning the division of the burden of proof: In the last turn the discussant, by explicitly appealing to the presumption principle, made it quite clear that the burden of proof did not rest with him but with the opposing party – to put it briefly, via similar explicitly verbal indicators the obligation-to-defend rule, by way of speaking, has been "given away." The other half of the group had to do without this type of help and received no help whatsoever. Two examples: The first fragment contains

explicit verbal indicators for the presumption principle, the second one is the same fragment but without any indicators:

(With explicit indicators for the presumption principle)

> Simone thinks that The Netherlands should have a president instead of a king or queen. Bianca thinks that is not necessary, as far as she is concerned, everything is fine the way it is.
> Simone: Why do you think the queen should stay?
> Bianca: I don't have to explain why it should stay as it is. *You* are the one who wants change, so *you* have to explain why.

(Without explicit indicators for the presumption principle)

> Simone thinks that The Netherlands should have a president instead of a king or queen. Bianca thinks that is not necessary; as far as she is concerned everything is fine the way it is.
> Simone: Why do you think the queen should stay?
> Bianca: No, you have to say why she should go.

Imagine that passing judgments by both groups of respondents on the unreasonableness of the fallacy of evading the burden of proof do not differ. If that were to be the case, then that would be a clear indication that naive respondents (i.e. the respondents who have no explicit indicators) reject the fallacy of evading the burden of proof as a discussion move because the obligation-to-defend rule has been violated.

Seventy respondents judged the reasonableness or unreasonableness in the 32 dialogue fragments on the *last* contribution of the *last* speaker in the discussion. In order to avoid class effects, the two versions (in this case the version with explicit indicators and the version without explicit indicators) were randomly assigned to students within the same class.

6.5.2 Results

The respondents in this replication appear to react no differently to the fillers than was the case in previous studies (see Table 6.4): The *tu quoque* variant of the *argumentum ad hominem* again appears to be found the most reasonable, while there is virtually no difference between the *abusive* variant and the fallacy of declaring a standpoint taboo, qua unreasonableness.

Table 6.4 Average reasonableness score for the fillers

Abusive attack	2.49 (1.07)
Tu quoque attack	3.83 (1.21)
Declaring a standpoint taboo	2.46 (1.43)

The results concerning the reasonableness or unreasonableness of sound argumentation are also entirely in accordance with those from our previous study: The discussion contributions where not a single discussion rule is violated, are considered to be reasonable (in an absolute sense) by the respondents (5.68(0.55)).The discussion contributions in which the obligation-to-defend rule is violated and in which the fallacy of evading the burden of proof is committed are judged to be an unreasonable move (in an absolute sense) (see Table 6.5), irrespective of the presence or absence of a presumptive status of the standpoint in the discussion. However, in the case of accusations where it is impossible for the accused to defend his innocence and he therefore puts the burden of proof solely on the other party, "evading the burden of proof" was judged to be a completely reasonable move, exactly as one might expect from a normative point of view.

Do the respondents also judge the manipulated types of fallacies of evading the burden of proof and also each independently as considerably more unreasonable than the non-fallacious discussion contributions? From the *a priori* contrasts it does indeed seem that these three types of fallacies, also in a relative sense, can be differentiated in a statistically reliable manner ($p < 0.01$) from the non-fallacious discussion moves. From the effect sizes given in Table 6.5 it can be deduced that the distinction concerning the reasonableness between, on the one hand, a specific type of fallacy of evading the burden of proof and, on the other hand, the sound argumentation is in general quite substantial. However, if evading the burden of proof takes place in the situation where it is impossible for the accused to defend his innocence, then the respondents deemed this move to be as reasonable as sound argumentation where not a single rule is violated ($F(1,9) = 2.43$; n.s.).

In the analysis, we will restrict ourselves to the types of contributions that have to be considered as unreasonable moves from both a normative and a theoretical point of view (no presumption, truth candidates and changes/revision). Does presumption now play a role in the judgment about unreasonableness, unlike in the previous experiment? And what about the explicit verbal pointers? Do they play a role? (Table 6.6)

From the statistical results it seems that the version presented to the respondents (in this case with explicit indicators versus without explicit indicators) did not have a statistically reliable influence on the judgments of reasonableness ($F(1,10) < 1$). From this result it may be concluded that the respondents who were presented with

Table 6.5 Average reasonableness score for different types of evading the burden of proof in mixed differences of opinion

Type of discussion move	Average	F	ES
No presumption	2.72 (0.81)	113.67 (1,10)	0.63
Truth candidates	3.45 (0.98)	19.62 (1,7)	0.41
Changes	3.48 (1.16)	57.15 (1,12)	0.45
Accusations	5.28 (1.01)	2.43 (1,9)	0.03
Sound argumentation	5.68 (0.55)		

Table 6.6 Average reasonableness score for different types of evading the burden of proof in mixed differences of opinion, per type of version

	Truth candidates	Changes	No presumption
Explicit	3.51 (0.93)	3.65 (1.14)	2.74 (0.79)
Implicit	3.39 (1.04)	3.30 (1.17)	2.71 (0.85)

the version without explicit indicators will in all likelihood reject the fallacious fragments on similar grounds as those that lead to the negative judgments of the respondents about the unreasonableness of the dialogue fragments

The respondents discriminate in a statically reliable way between the unreasonableness of the three types of "evading the burden of proof" ($F(2,11) = 4.07$; $p < 0.05$). The presence or absence of a presumption standpoint does seem to play a role in their negative judgments about evading the burden of proof: The presence of a standpoint to which the status of presumption has been assigned seems to play exactly that role that one could expect on the basis of the theoretical literature. From the contrasts (orthogonal, *a posteriori*) carried out it is evident that the respondents consider the discussion moves concerning truth candidates and changes equally unreasonable ($F(1,11) < 1$); however, both fallacies were found in turn to be less unreasonable than the fallacious dialogue fragments where the burden of proof was evaded in the absence of a presumption standpoint ($F(1,11) = 5.92$; $p < 0.05$). In other words, if in a discussion the burden of proof is evaded, then the respondents will deem this without hesitation to be an unreasonable discussion move – but they feel less strongly about it when this fallacy is committed by someone who has the presumption on his side.

6.6 The Sequential Order Rule Versus the Obligation-to-Defend Rule

The concluding remarks above are of course only valid if plausible alternative explanations of the results that were found have been ruled out. Do the respondents really reject the fallacious discussion moves presented to them because of the evasion of the burden of proof?

A possible alternative explanation is that the respondents based their rejection not so much on the fact that the obligation-to-defend rule has been violated as much as on the fact that in the dialogues concerned a request from one of the parties to give clarification, explanation or argumentation was denied by the other party: To make matters even worse, it was counter-attacked (for example in the following fragment, *Simone*: "Why do you think the queen should stay?" *Bianca*: "No, you have to say why she should go"). In giving their judgments the respondents could have familiarized themselves with a certain type of conversational sequential order rule according to which the discussion partner who was the first to have asked for a justification of his standpoint also has the duty to provide information first.

Although this alternative explanation is theoretically supported, it is in our opinion woefully inadequate. Why do the respondents suddenly deem the fragments reasonable which contain accusations (where the sequential order rule was violated in exactly the same way as in the fallacious fragments)? This result is totally out of step with the alternative explanation and rather points towards sensitivity of violating the obligation-to-defend rule on the part of the respondents, something that also applies to the influence of the presence or absence of a presumption standpoint on the judgment of reasonableness that is given.

6.6.1 Replication: Set-up and Material

In order to eliminate the above-mentioned alternative explanation in terms of the sequential order rule and to be able to better understand the motives, the study amongst 40 respondents (comparable age and backgrounds) reported on in the previous section was repeated. Because the respondents in this replication also had to briefly motivate their judgment of reasonableness ("Why do you think the reaction of the last speaker was reasonable/unreasonable?"), the original total of 32 fragments was curtailed to 24 due to lack of time (about 45 minutes): 4 fragments without presumption, 4 with truth candidates, 4 with changes/revisions, 4 with accusations, 4 with sound argumentation, 1 *tu quoque* variant, 1 *argumentum ad hominem* in the *abusive* variant and 1 taboo declaration of a standpoint. The 8 deleted fragments were all fillers.

6.6.2 Replication: Results

The quantitative results of this replication study show a striking resemblance to the results of the experiment reported on in Section 6.5: The sound dialogue fragments were once again found to be regarded reasonable (5.79 (0.54)), just like the accusations (5.45 (0.93)): In turn, both were found to be considerably more reasonable than the three cases where the fallacy of evading the burden of proof was committed (in this case no presumption, truth candidates and changes/revisions) – also in this replication study these fallacious moves were rejected without any hesitation whatsoever (see Table 6.7).

When compared with the fragments where the burden of proof was evaded by discussants who have the presumption on their side, the fallacious dialogue fragments without presumption are again judged to be considerably less reasonable (2.55 (0.83)), while the truth candidates (3.51 (1.05)) cannot be distinguished, qua unreasonableness, from the changes/revisions (3.57 (1.33)).

In this study too it seems that the versions presented to the respondents have hardly any influence on the judgments of reasonableness. The three types of fallacies which fulfill the function of a filler (*tu quoque* variant: 4.25 (1.41); abusive attack:

Table 6.7 Average reasonableness score for different types of evading the burden of proof in mixed differences of opinion; replication

Type of discussion move	Average	F	ES
No presumption	2.55 (0.83)	113.67 (1,10)	0.63
Truth candidates	3.51 (1.05)	19.62 (1,7)	0.41
Changes	3.57 (1.33)	57.15 (1,12)	0.45
Accusations	5.45 (0.93)	2.43 (1,9)	0.03
Sound argumentation	5.79 (0.54)		

1.85 (0.98); fallacy of declaring a standpoint taboo: 2.03 (1.23)) do not differ qua reasonableness or unreasonableness from the previous study.

In 14 of the, in total, 24 dialogue fragments the respondents had to explain their decisions (in 8 of the 14 fragments the burden of proof was evaded). Did they judge the unreasonableness of evading the burden of proof in mixed differences of opinion on the basis of critical considerations similar to those from argumentation theory or on the basis of considerations of a conversational-analytical/sequential nature? In this case the motivations speak for themselves: From the analysis of the 240 motivations in 6 fragments where the burden of proof was evaded (leaving aside the 2 fragments which deal with accusations) it is evident that the respondents in the majority of cases (84%) where an interpretation was possible (and that was the case in 216 of the in total 240 motivations), based their judgments on the unreasonableness of the fallacious fragments on the fact that in these fragments the obligation-to-defend rule was violated.

By and large, our respondents point towards the obligation-to-defend rule, whether explicitly or implicitly, exactly as was the case in the previous chapter concerning the motivations of their rejections of the fallacies of shifting the burden of proof ("Onno has also to substantiate his own standpoint" – please, note the revealing "also"). Exactly as was the case with shifting the burden of proof, the phrasing used in the fragments ("no, you have to say. . ."), induces the idiomatic rule "who claims, has to defend," and therefore the respondents appeal to this rule.

In general, the respondents are not only aware, in a normative sense, of what is wrong with the fallacy of evading the burden of proof in mixed differences of opinion, they can also exactly indicate in particular specific cases which role presumptions *de facto* play in determining the order of defense, which role presumptions should play and where the deficiencies in the argumentative moves concerned can be found. Take the following comment of a respondent in the case of a fragment where the fallacy of evading the burden of proof was committed by a protagonist who appealed to the standpoint that represents the *status quo*: "If you find something, then you have to substantiate that."

Only 3% of the motivations that were given can be traced back to violating the sequential order rule: "I think this is very unreasonable. If you ask a question, you should get an answer and not a counter-question," or "In a discussion you could just answer the question. Otherwise the conversation will come to a halt." or "No,

you have to say it." "No, you." Our purely theoretical methodological objections to an alternative explanation of the results of the study in Section 6.5 in terms of a sequential order rule are completely supported by the results of this replication.

And what about the accusations of conduct or acts to which the accused cannot possibly defend himself? Why do our respondents think in such cases that solely ascribing the burden of proof to the one who makes the accusation is justifiable? This fact is in stark contrast to the other types of evading the burden of proof which were studied and which our respondents consistently rejected as unreasonable. Here follow two illustrative examples of comments: "I think Pim's reaction is reasonable. He has been accused and if you are being accused, then someone else should indeed first prove that you have done something." And: "You have to prove first that he did something, then Pim can still defend himself." In more than 90% of all cases our respondents referred to the principle of *presumptio innocentiae* from criminal law for their motivations.

6.7 Conclusions

The results of the experimental studies discussed in this chapter featuring the fallacy of shifting the burden of proof in mixed differences of opinion predominately point to the conventional validity of the pragma-dialectical obligation-to-defend rule. After all, when making their judgments about the reasonableness or unreasonableness of discussion moves ordinary assessors make a strong distinction between discussion moves in which the obligation-to-defend rule is violated and discussion moves in which this obligation-to-defend rule is not violated. Moreover, they do this in a relatively consistent manner: Discussion moves in which the fallacy of evading the burden of proof has been committed is found to be unreasonable. *Ceteris paribus*, they are found to be much more unreasonable than discussion moves without fallacies.

Even though these results indicate that our respondents, when forming a judgment about the permissibility of discussion contributions let themselves be led by objective, rational standards that seem to correspond with the pragma-dialectical ideal model, it cannot be deduced that our respondents are purely rational judges who are completely entitled the epithet *animal rationale*. In their otherwise critical considerations concerning the reasonableness or unreasonableness of discussion contributions a psychological element sneaks in that is at odds with the rules of the pragma-dialectical ideal model concerning the obligation-to-defend rule. After all, if the burden of proof is evaded by someone who has presumption on his side – or a truth candidate or the *status quo* has the presumption – then this evasion is found to be less reasonable by our respondents than when the burden of proof is evaded by someone who propagates a standpoint to which no presumptive status can be awarded.[5] The paradigmatic case of presumption (the innocence of a suspect

[5] Our respondents seem to have views more akin to Whately's ideas about the burden of proof.

in the court room the burden of proof solely attached to the district attorney), on the other hand, seems to be as much appreciated by the respondents as might have been expected from a theoretical–normative point of view: An accused who cannot possibly defend his innocence is entitled to put the burden of proof solely where it belongs: On the one who accuses.

Chapter 7
The Argumentation Stage: The Argument Scheme Rule

7.1 Overview of Rules for the Argumentation Stage

In a reaction to an essay on male and female analytical skills a critical reader sent in a letter to the editor containing the following passage:

> Rationality and analytic ability cannot be viewed as predominantly male attributes. If we were to regard them as such, we would unintentionally be giving men an advantage in job applications and promotions.

In this argumentation the author defends his standpoint that something is not the case (rationality and analytic ability cannot be viewed as exclusively male attributes) by mentioning certain undesirable consequences of holding that view (men will have an advantage in job applications and promotions). In this case, a descriptive standpoint is defended by means of a normative premise. Because this combination of standpoint and premise – which comes about in the argument scheme – is inappropriate the argumentation is fallacious. In this case the arguer violates the argument scheme rule: "Standpoints may not be regarded as conclusively defended if the defense does not take place by means of appropriate argument schemes that are applied correctly."

The argument scheme rule, which together with five other normative rules forms the pragma-dialectical regulation of the *argumentation stage* in a critical discussion, has been the subject of investigation in five empirical studies which will be reported on in this chapter.

Unlike the confrontation stage or the opening stage which in both cases are regulated by just one specific pragma-dialectical discussion rule, a whole series of rules is designed for the argumentation stage to guarantee that the discussion in that stage runs adequately. In a nutshell, these rules should guarantee that moves that could frustrate resolving a difference of opinion will be excluded. That precisely for this argumentation stage more rules have been formulated than for the other stages in a critical discussion will not come as a surprise if one realizes that in the case of argumentation it is all about the justification (or refutation) of standpoints – which takes place in the argumentation stage. The pragma-dialectical discussion rules for the argumentation stage include rules 3 up to and including 8; they can be consecutively characterized as follows:

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3. The *standpoint rule*: "Attacks on standpoints may not bear on a standpoint that has not actually been put forward by the other party."
4. The *relevance rule*: "Standpoints may not be defended by non-argumentation or argumentation that is not relevant to the standpoint."
5. The *unexpressed premise rule*: "Discussants may not falsely attribute unexpressed premises to the other party, nor disown responsibility for their own unexpressed premises."
6. The *starting point rule*: "Discussants may not falsely present something as an accepted starting point or falsely deny that something is an accepted starting point."
7. The *validity rule*: "Reasoning that in an argumentation is presented as formally conclusive may not be invalid in a logical sense."
8. The *argument scheme rule*: "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 means of appropriate argument schemes that are applied correctly."

Violating rule 3, the standpoint rule, means that another standpoint will be attacked than the one brought forward by the opposing party in the confrontation stage. There are two different ways to attack standpoints that have not really been brought forward by the opposing party: His standpoint can be misrepresented and he can be foisted with a fictitious standpoint. Whoever does this, commits the *straw man* fallacy. The one-time union chairman (and later prime minister of three coalition governments) Wim Kok gave a good example of this in *NRC Handelsblad* newspaper of 13 March 1978:

> Kok was invited to give a speech to open the academic year in which he mentioned that in our society there are different types of jobs that need to be done for which it is becoming increasingly more difficult to find people to do them. "Would it not be a good idea, if we take the military as an example, to introduce a sort of social community service?" he suggested. "It was just an idea," said Kok, "but the next day the newspaper *De Telegraaf* published a heading of 7 columns: Kok pleads for hard labor! Well, I feel they've got me well and truly this time."

In rule 4, the relevance rule, the defense of a standpoint has to fulfill at least two requirements: The defense may only take place with the assistance of arguments, and these arguments have to be relevant to the standpoint which is being defended. There are two kinds of violations of this rule: Firstly, it is possible that the argumentation being presented bears no relation whatsoever to the standpoint that was brought forward in the confrontation stage. In that case, it is referred to as *irrelevant argumentation.* Secondly, the standpoint can be defended using other means than argumentation, although it seems like argumentation is being presented; this is referred to as *non-argumentation.* Here follows an example of the fallacy of bringing forward argumentation that is only relevant for a standpoint that in actual fact is not under discussion, which is also called *ignoratio elenchi*:

> Pouring alcohol is the downfall of Dutch amateur sport, because research shows that in 85% of all sports canteens alcohol is served.[1]

Violating rule 5, the unexpressed premise rule, is connected to the fact that in everyday communication usually all sorts of elements remain implicit or are only indirectly expressed. Of course, it is unreasonable if a discussant tries to gain an advantage in the discussion by making improper use of certain characteristics of implicit or indirect language use. That is, for example, the case if the antagonist produces a reconstruction of a protagonist's unexpressed premise that goes beyond the pragmatic optimum to which the protagonist can actually be held. This type of exaggeration makes it easier to attack the standpoint and is referred to as the fallacy of *magnifying what has been left unexpressed*. Here follows an example from a column by Simon Carmiggelt (*Het Parool*, 24 September 1979):

> An old worker at the assembly line says: "My children will have it better than I ever did, because I let them learn."
> With such a phrase your heart just goes out to him. The belief that knowledge and happiness could go together, makes you wonder if the man ever met an intellectual.[2]

Violating rule 6, the starting point rule, amounts to falsely presenting something as a common starting point or falsely denying that something is a common starting point. A case in which the protagonist incorrectly assumes that a proposition belongs to the accepted starting points occurs when a protagonist advances an argument in his defense which boils down to the same as the standpoint at issue. Because it is the standpoint itself that is under discussion he should know that an expression which is the same or synonymous with the standpoint can never belong to the common starting points. If he still acts as if this is nevertheless the case, then he is guilty of *circular reasoning* (also known as *petitio principii* or *begging the question*). This fallacy also occurs when the acceptability of the premise depends on the truth of the standpoint at issue. Here is a comical example (taken from Fearnside and Holther (1959)) from a film by the French comedy writer Sacha Guitry:

> Three thieves are arguing about dividing seven pearls which are worth a fortune. One of them hands the man on his right-hand side two pearls, and two to the man on his left-hand side.
> "I," he says, "shall keep three."
> The man on his right says: "Why should you keep three?"

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[1] At first sight it seems that the standpoints and argument perhaps have something to do with each other, but after closer consideration it appears that the argument put forward ("research shows that in 85% of all sports canteens alcohol is served") cannot be used to support the standpoint that Dutch amateur sport suffers by serving alcohol. It could support another standpoint, for example: "It is very likely that someone in a sports canteen can get an alcoholic drink".

[2] The unexpressed premise of the worker amounts to something like: "Whoever has had an education, will have it a lot better than someone (like me) who had no education." Although it is not certain what the worker means when he says "have it better" it is very obvious that he means the financial circumstances of his children. But what does Carmiggelt think of this train of thought? He lays the idealistic belief at his door that knowledge makes one happy, an interpretation that goes much further than that which in all reasonableness can be deduced from the words of the worker.

> "Because I'm the leader."
> "Oh, but how come you're the leader?"
> "Because I've got more pearls."

Violating rule 7, the validity rule, was considered to be the most important type of fallacy for a long time. Nevertheless, invalidity of reasonings is certainly not the main cause of being unable to resolve a difference of opinion – because most argumentation in everyday communication is incomplete and can often easily be completed in a valid way. Here follows an example of an invalid reasoning with an incorrect reversal ("A cow is an ox, therefore an ox is a cow") which comes from an angry rail traveler on the route Den Bosch-Utrecht in The Netherlands who growled the following at the conductor on duty:

> Come back in a little while to check my ticket. If you think it is necessary to leave 20 minutes late then I think it's necessary to show my ticket after 20 minutes. (*NRC Handelsblad* 5 November 1983)

It goes without saying that it is impossible, from a practical point of view, to study the conventional validity of all these rules including the many fallacies that fall within the scope of these rules. Therefore, a well-thought choice had to be made. We chose rule 8, because, amongst others, the prevailing theoretical term *argument scheme* has a specific, distinct meaning within the pragma-dialectical argumentation theory that differs from other approaches. In addition, the term *argument scheme* is the pragmatic alternative for the logical term *argument form* which played a crucial role in introductory logic-education for decades but proved rather problematic when it came to the analysis and assessment of everyday argumentation. Finally, from a technical-experimental perspective more subtle predictions about the judgment behavior of our respondents can be made than would have been the case with other rules for the argumentation stage.

Violating rule 8 can occur in a multitude of ways that all lead to different types of fallacies. From this potential of false moves caused by a violation of the argument scheme rule, we have in our empirical research confined ourselves to the *argumentum ad consequentiam*, the *argumentum ad populum*, the *fallacy of the slippery slope* and *false analogy*.

7.2 Argument Schemes, Critical Questions and Types of Fallacies

A party that advances singular argumentation assumes in principle that the argument used is an acceptable "premise" and that this argument can be linked to the standpoint in an adequate way. The connection between the argument and the standpoint is adequate if the acceptability of the "premise" concerned is "transferred" by means of the *argument scheme* used.

The "premise" can be linked to the standpoint in various, distinct ways and that is why in the pragma-dialectical theory different argument schemes are distinguished.

Every argument scheme represents a specific structuring principle; in the scheme the "internal" structure of a single argumentation is expressed.

The term *argument scheme* – or in this case *argumentation* scheme – was probably used first by Perelman (*schème argumentative*), but other authors indicate similar notions using slightly different terms. Argument schemes are defined and divided in different ways (see for example Whately's (1846) Rhetoric or the New Rhetoric of Perelman and Olbrechts-Tyteca (1958)), depending upon, amongst others, the specific aim why the schemes are discussed. How different the approaches may be and how different qua definition and the number of different schemes in the various approaches may be, Garssen (1997) has shown that they can all be reduced to one of three main categories of argument schemes that can be distinguished in the pragma-dialectical theory.

In the pragma-dialectical argumentation theory three main classes of argument schemes have been distinguished, corresponding with three different types of argumentation that can be expressed in concrete argumentation. In each of these three types of argumentation there is different type of relation between argument and standpoint, a relation which generally manifests itself when the unexpressed premise is made explicit. In the following three examples there is respectively a *symptomatic relation* (the one is introduced as a sign or characteristic of the other), a *relation of analogy* (the one is compared with the other), and a *causal relation* (the one is presented as the cause of a certain effect or the other way around, or as means to a certain goal). In the examples the unexpressed premise, which is mentioned in parentheses, is made explicit in each case.

(1) This apartment will be very small, because it is in Manhattan. (It is *characteristic* of apartments in Manhattan that they are small.)
(2) Our application for a research subsidy by the National Science Foundation will probably be granted since the application for subsidy we submitted last year was also granted. (This year's application is *comparable* to last year's application.)
(3) The unemployment rates will increase because of the decline in purchasing power. (A decline in purchasing power causes higher unemployment rates.)

In the examples above specific use has been made of one type of relation or another: A symptomatic relation, a relation of analogy respectively a causal relation. Every scheme that is applied to a particular case falls under one of these three main categories.

The theoretical *rationale* of the pragma-dialectical classification into three main categories is that different *soundness criteria* apply to different types of argument schemes: The argument schemes differ from each other because every scheme brings other *critical questions* with it. Because the argument in each of these argument schemes is linked differently to the standpoint to be defended, symptomatic argumentation has to be judged differently from analogy argumentation, analogy argumentation has to be judged differently from causal argumentation and causal argumentation again has to be judged differently from symptomatic argumentation.

In order to find out if a certain argumentation meets the criteria belonging to that type of argumentation, a number of critical questions have to be asked. For a symptomatic relation (the general scheme is as follows: Y is true of X, because: Z is true of X, and: Z is symptomatic of Y) the most important questions are (depending on the specific variant of this argument scheme):

(1) Is Z really symptomatic for Y?
(2) Are there also Ys that do not have the Z symptoms?
(3) Are there also non-Ys that equally have Z's characteristic?

If one of these critical questions cannot be answered satisfactorily, then this implies that the argument used is unsound and that the argument is not – at least not completely – acceptable as a justification attempt (or refutation attempt).

The general argument scheme of the comparison argumentation is as follows:

Y is true of X,
because: Y is true of Z,
and: Z is comparable to X.

Two crucial critical questions concerning argumentation that is based on a symptomatic relation are:

(1) Are there significant differences between Z and X?[3]
(2) Are there significant similarities between Z and X?

In argumentation that is based on a causal relation a standpoint is defended by making a causal connection between the argument and the standpoint so that the standpoint – given the argument – has to be accepted on the grounds of this argument:

Lydia will have poor eyesight, because she always reads in murky light. (And from reading in murky light you get poor eyesight.)

When in the argument something is introduced as the cause of an effect mentioned in the standpoint, as a means to a certain goal or as a course of action with a certain effect, in all these cases the argument scheme is used that is based on a causal relation. According to this presentation the one, as it were, automatically leads to the other.

The general argument scheme of the causal relation in Lydia's example demonstrates a specific use:

Y is true of X,
because: Z is true of X
and: Z leads to Y.

[3]Such differences can be shown in two ways, by saying that Z has a certain characteristic that X does not possess or the other way around. Both types of criticism are equally serious, because in the case of a comparison relation it is assumed that all (relevant) characteristics of X and Z are common.

A crucial critical question in argumentation that is based on a causal relation is:

> Does Z always lead to Y?

Just as in the case of argumentation based on a symptomatic relation in the case of argumentation of the causal type a reversal variant exists, whereby the argument refers to the consequence and the standpoint refers to the cause: "Lydia has definitely read a lot in murky light because she has poor eyesight." In the case of this reversal variant a second critical question can be asked, namely if the consequence (having poor eyesight) could also be caused by something else (than reading by murky light).

An important sub-type of argumentation whereby in the argument is referred to the consequence of that which is mentioned in the standpoint is called *pragmatic argumentation*. Pragmatic argumentation occurs when in the standpoint a certain goal or a certain course of action is recommended and the argumentation consists of listing favorable effects or consequences of the goal to be attained or from the course of action to be taken ("Doctors should wear a white coat again, because that creates distance" and it is good to create distance between doctor and patient).

The soundness of argumentation not only depends on the choice of the type of argument scheme, but also on its specific content in that particular case – and naturally on how this specific argument scheme is applied.

Occasionally, one has to wonder, and with good reason, if some subtypes of schemes were ever suitable to defend a standpoint. Take for example the *argumentum ad populum*, a variant of argumentation that is based on the symptomatic relation. This fallacy boils down to a case in which standpoint A is assumed true or is represented as true simply because everybody, or at least the vast majority, thinks that A is true. But the fact that "the multitude", "the crowd" or the "silent majority" agree or disagree with standpoint A is totally irrelevant to the question if this standpoint is true or not. In the newsmagazine *Vrij Nederland* the columnist Tamar protested – during the struggle between those who oppose and those who tolerate nuclear weapons on Dutch soil – against this type of fallacious argument:

> Hundreds of thousands of jubilant readers, viewers and listeners do not prove at all that a view is correct and it is pure demagoguery to use it as an argument (*Vrij Nederland* March 6, 1983).

Mistakes made in the defense of standpoints are, of course, not restricted to this argument scheme that is a specific example of the symptomatic relation, but can, for instance, also occur in the use of the argument schemes that are specific cases of exploiting the causal relationship. One of the most obvious mistakes made in using this type of relation is that facts and norms are confused with each other: To support a standpoint with a factual (*descriptive*) proposition ("Darwin's theory is not true") an argument is then put forward that has a *normative* character because, for example, it mentions undesirable consequences of the standpoint ("It is not true,

because it should not be true")[4]. This fallacious form of argumentation is also known as *argumentum ad consequentiam*. The following example, originating from the Dutch author Maarten 't Hart, is an apt, prototypical illustration of the fallacy meant here:

> I was decidedly against Darwinism: I felt that it made everything meaningless, stupid, common. It could not be true under any circumstance; if it is true then I no longer wish to live; as far as I'm concerned there's no point in me being here in such a world (*De ortolaan* 1984, p. 84).

The two types of fallacies discussed here – the *argumentum ad populum* and the *argumentum ad consequentiam* – are examples of unsound ways of arguing whereby use is made of an *inappropriate* argument scheme (namely an argument scheme that specifically fits to a symptomatic relation respectively a causal relation). There is a good chance that opponents of the standpoint that is defended by means of these argument schemes are in principle against the *use* of these types of schemes. On the strength of rule 8, an argument scheme may only be used if both the protagonist and the antagonist mutually accept it – otherwise the difference of opinion cannot be resolved.[5]

Violating rule 8 is not confined to the *choice* of an incorrect argument scheme: Even if an argument scheme is, in principle, suitable according to the discussants, not every *application* of it is equally sound. Only when certain conditions have been met has the argument scheme been correctly applied. The conditions for a correct application correspond with the critical questions pertaining to the argument schemes concerned.

One of the critical questions that can be asked when a causal argument scheme is used is whether that which is presented as a consequence of a measure to be taken does actually arise ("Does that which was proposed as a cause/plan/policy, indeed lead to the consequences mentioned?"). If a measure is rejected on the grounds of the utmost negative effects that it can have but these effects do not appear in the slightest, then the scheme has been incorrectly applied. A common way of misusing

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[4]Propositions can, by their nature, be classified into descriptive (also known as: factual), evaluative and inciting propositions. In descriptive propositions facts or events are described ("The Dutch economy is stagnant"), in evaluative propositions an opinion is expressed about facts or events ("The Dutch economy looks bleak") and in inciting propositions there is an indication that a certain course of action has to be taken ("The Dutch economy needs to have an extra impulse"). The choice of an argument scheme and the method which has to be applied are, amongst others, linked to the nature of the propositions that are expressed in the standpoint that has to be defended. What is described in the text, for the purpose of the legibility, as a descriptive proposition (in the standpoint) supported by a normative argument is upon further reflection a descriptive proposition (that is expressed in the standpoint), and an evaluative proposition (that is expressed in the argument). The crux of the matter is that it is not warranted to point out the undesirable consequences of this (evaluating proposition) when testing a claim (a descriptive proposition) because facts and norms may not be confused with each other (as happens in an *argumentum ad consequentiam*).

[5]Apart from that, in the opening stage the discussants can explicitly agree as to which schemes they will permit during the discussion and which they deem suitable to defend a particular type of standpoint.

this scheme is that it is wrongly suggested that we, in the case of a measure, will go from bad to worse. This fallacy that is often referred to in the professional literature as the *slippery slope* can be detected in Harry Mulisch's comments on the refusal of the Dutch government to award the author Hugo Brandt Corstius the *P.C. Hooftprijs* because he had, in the government's opinion, made "systematic insults and offences a tool."

> The attitude of the government is enough to drive you round the bend. When people work in this way the next logical next step is to lock up authors in the bobby hatch: Likewise a sovereign remedy to keep them in check. (*NRC Handelsblad*, February 13, 1985)

The slippery slope is very much present here: Whoever starts by refusing to present a prize to a critical author ends inevitable (a logical next step) by locking up writers in a psychiatric institution.

One of the critical questions connected with the use of the argument scheme of comparison argumentation is if the comparison of relevant points really holds true and if there are no essential differences. If the comparison does not hold true in the opinion of the antagonist, and the protagonist is not able to enforce the argumentation by means of additional argumentation then the analogy argumentation is used incorrectly (this is known as *false analogy*).

However, it is also possible that in a discussion, for example, in the opening stage in which both parties, amongst others, have committed themselves to certain starting points, the protagonist and antagonist jointly decide to preclude the use of such a scheme in the argumentation, on the pretext that in classic antiquity this exclusion was generally accepted: "Omnis comparatio claudicat" (every comparison falls short). If the protagonist nevertheless applies the scheme he is guilty of using an inappropriate argument scheme.

On the face of it the *argumentum ad consequentiam,* the *argumentum ad populum*, the fallacy of the slippery slope and false analogy might seem to have precious little in common – apart from the fact that these false discussion moves can be found in most canonical lists of fallacies. From a pragma-dialectical perspective, however, these "false" discussion moves are all violations of the same (abstract) pragma-dialectical discussion rule that regulates the use and correct application of argument schemes in the argumentation stage of a critical discussion where pro- and counter-arguments are advanced by the parties in order to critically test the acceptability of a standpoint.

7.3 The *Argumentum Ad Consequentiam*

According to Walton (1999b), Aristotle was the first in history to systematically devote attention to the *argumentum ad consequentiam*. Aristotle did this in his *Topica*:

> When two things are very similar to one another and we cannot detect any superiority in the one over the other, we must judge from their consequences; for that of which the

> consequences is a greater good is more worthy of choice, and, if the consequences are evil, that is more worthy of choice which is followed by lesser evil (*Topica* 117a7–117a15).

For some rather inexplicable reason, according to Walton, this fallacy "argumentation from consequences" has, however, with the passage of time disappeared from the conventional list of fallacies that is based on the Aristotelian teachings.

> As so often happened with informal fallacies, Aristotle had a good idea, but subsequent generations either watered it down, or distorted it, or simply ignored it altogether (Walton, 1999, p. 311).

Only in 1879 did the *argumentum ad consequentiam* pop up again in a treatise in a textbook by McCosh (1879, pp. 189–190). After McCosh had paid explicit attention to it, it seems that the *argumentum ad consequentiam* slowly trickled into the introductory logic handbooks. Since then, this fallacy has created a permanent place for itself in the standard approach to fallacies discussed in Chapter 1 (Hamblin, 1970).

If we are to believe Walton, Aristotle distinguished both a reasonable and an unreasonable variant of this argument scheme (McCosh too considered this argument to be reasonable in some cases and unreasonable in other cases). However, as we argued before, the *argumentum ad consequentiam* – at least in the interpretation we have in mind – can never be a reasonable discussion move because its *descriptive* standpoint (a standpoint which refers to a factual state of affairs in reality) is supported by an *evaluative* argument in which a value judgment is expressed that points to the undesired consequences of the standpoint. But whether something is true or not in a material sense does not depend on the question if we like it or not. In other words, the argument scheme used in the *argumentum ad consequentiam* as a specific variant of a causal relation is not suitable. However, when a normative standpoint is supported by a value judgment it can indeed be a reasonable discussion move if in such cases the causal argument scheme has been correctly applied.

The combination of a descriptive standpoint and a normative argument always leads to an inapplicable argument scheme: The acceptability of a descriptive standpoint is after all independent of the values that are attached to the consequences or outcomes of the acceptance of that standpoint. A prototypical example of the *argumentum ad consequentiam* is the following argumentation:

> The research into the bell-curve cannot be right because if you agree with the results you pave the way for the discrimination of black people in the United States.

In this example the argument points out the negative consequences of accepting the standpoint. In this regard, this type of *argumentum ad consequentiam* looks like *pragmatic argumentation* in which the positive or negative consequences of a certain plan or proposal are pointed out. The difference between both types of argumentation is that in pragmatic argumentation the standpoint relates to a normative proposition while in *ad consequentian* argumentation the standpoint always relates to a descriptive proposition.

Another prototypical example of the *ad consequentiam* fallacy is the following argumentation:

> The theory of evolution is not right, because that would mean that we descend from apes and that would of course be terrible.

In this example, we are not made aware of the causal consequences of the standpoint, but rather of the "logical" consequences. We have to accept the standpoint because what logically follows from the opposite of the standpoint is negative. In this type of *ad consequentiam* argumentation the speaker does not (falsely) appeal to pragmatic argumentation, but to argumentation based on a *reductio ad absurdum*. In a *reductio ad absurdum* a standpoint is defended by pointing out that a consequence of the contrary of the standpoint is an indisputable falsity.[6] In *ad consequentiam* argumentation one does not point to contradiction or an indisputable falsity, but to something negative or positive consequences of the contrary of the standpoint.

All in all, in a theoretical sense, there are two distinct variants of the *argumentum ad consequentiam*: One variant in which pragmatic argumentation is copied (see Table 7.1) and another variant in which the type of reasoning called *reductio ad absurdum* is copied (see Table 7.2).

In two empirical studies, we looked into the reasonableness of these variants of the *argumentum ad consequentiam* which we distinguished on theoretical grounds. In the first experiment, we confined ourselves to the *ad consequentiam* fallacies that copies pragmatic argumentation, in the second experiment, we dealt with the variant that copies the *reductio ad absurdum*.

7.3.1 Set-up: Material – Variant I

Thirty-nine students had to judge 48 constructed fragments, 12 of which contained an *argumentum ad consequentiam*, 24 fragments contained sound argumentation

Table 7.1 *Ad consequentiam* copying pragmatic argumentation

Pragmatic argumentation	*Ad consequentiam* I
Positive variant	
plan X is good, *because*	X is true, *because*
plan X leads to Y	X leads to Y
and Y is favorable	*and* Y is favorable
Negative variant	
plan X is not good, *because*	X is not true, *because*
plan X leads to Y	X leads to Y
and Y is unfavorable	*and* Y is unfavorable

[6]The *reductio ad absurdum* reasoning (also called the *reductio ad impossible*) is also known as proof by contradiction. This type of reasoning is often used in mathematics and in logic and boils down to being able to prove a certain theory by assuming that the opposite of the theory is true, from which subsequently via deduction a contradiction will be derived (whereby it is proved that the original starting point, the hypothesis, must have been wrong).

Table 7.2 *Ad consequentiam* copying *reductio ad absurdum*

Reductio ad absurdum (modus tollens)	*Ad consequentiam* II
Positive variant	
X must to true, *because*	X must be true, *because*
if X were not true, Y would be true	if X were not true, Y would be true
and Y is not true	*and* Y is unfavorable
Negative variant	
X cannot be true, *because*	X cannot be true, *because*
if X were true, Y would be true, *and*	if X were true, Y would be true, *and*
Y is not true	Y is unfavorable

and the remaining 12 fragments were comprised of "fillers": 4 *tu quoque* fallacies, 4 direct personal attacks (abusive variant) and 4 fallacies where the burden of proof was shifted. The fillers, exactly as was the case in all the previous studies, were added in order to (1) mask the purpose of the study from the respondents and (2) make a stability control of the data possible (and with it a check on the validity). In order to homogenize the interpretations of the dialogue fragments, all the fragments were offered in a "well-defined context."

The following is an example of a dialogue fragment in which the *ad consequentiam* fallacy appears (in variant I):

(Two sun-worshipers on the beach)

A: It seems to me quite likely that the sun will never burn up.
B: How do you mean?
A: In that case life on earth would be impossible, wouldn't it?

In all cases, the structure of the fragments was the same. The identity of speakers A and B was not revealed. A brought forward a standpoint, always accompanied by a standpoint marked with an indicator such as: "I think" or "It seems to me". B's contribution always consisted of a reaction of doubt to A's standpoint ("How do you mean?" or "Is that really so?"). To this expression of doubt A responds with an argument to support his standpoint. In all cases, we are dealing with what is called *simple* argumentation. The standpoints and the arguments, as usual, are in all cases related to non-loaded standpoints. Also as usual in all our studies, the respondents had to pass judgment on the reasonableness or unreasonableness of the last discussion contribution (in this case A's second contribution). By the way, in the *ad consequentiam* dialogues argumentation that permitted a reasonable interpretation was avoided. An example of the latter is given in the following dialogue:

(Two employers in the corridor during the annual wage negotiations)

A: I don't think it's very likely that taxes will increase.
B: Why not?
A: Think of the low spending power that arises as a result of that.

In this argumentation the standpoint is descriptive and the argumentation is (partly) normative – at least it can be conceived to be that. It is also feasible that the speaker here means that the government will never increase tax because spending power would then decrease. In this last interpretation the possible negative consequences of the prediction have not been pointed out, but point to the probable motives of a responsible party – and in this interpretation there is of course no question of a fallacy.

The dialogue fragments with pragmatic argumentation in this experiment were constructed according to the same criteria. Contrary to the *ad consequentiam* fragments, the standpoint here concerns in each case a proposal, a policy plan or an intention, such as in the following example:

(Member of an environmental protection group to a member of the Consumer's Guide during a national conference about water management)

A: We will have to manage water more economically in the coming years.
B: Why do you think that?
A: Well, otherwise the threat of a serious water shortage will arise in future.

It is predicted that (a) the respondents will find the *argumentum ad consequentiam* studied here to be more unreasonable (in a relative sense) than the two sound types of argumentation and (b) this fallacy will be found to be unreasonable, in an absolute sense, while the sound types of argumentation will be judged as reasonable. This is prediction 1 which will be tested on the basis of the data to be collected.

Part of the reasonable dialogue fragments, as argued, deliberately contains pragmatic argumentation. If the respondents really know how to discriminate pragmatic argumentation, qua reasonableness or unreasonableness, from the *argumentum ad consequentiam*, then it may be deduced from that that this is as a result of the incorrect use of the causal argument scheme. Here we will attach a second prediction. Prediction 2: The respondents will not discriminate in reasonableness between the two types of sound, in this case reasonable argumentation, i.e., pragmatic and non-pragmatic argumentation. From both predictions together it can be deduced that the respondents will find the *argumentum ad consequentiam* more unreasonable than non-fallacious pragmatic argumentation.

7.3.2 Results – Variant I

As Table 7.3 reveals, the fillers (see bottom half of the table) behaved themselves in accordance with the prediction based on the results from previous studies: Both the direct personal attack and the fallacy of shifting the burden of proof were found to be unreasonable (in an absolute sense), more or less to the same extent, while the *tu quoque* variant of the *argumentum ad hominem* tends to lean towards reasonableness

Table 7.3 Average reasonableness score for the fallacy *argumentum ad consequentiam* (variant I) and for two types of sound argumentation (pragmatic and non-pragmatic argumentation). Bottom half of the table: Average reasonableness score for three types of fillers (*tu quoque*, the direct personal attack and the fallacy of shifting the burden of proof); k = number of representations

	Average	k
Argumentum ad consequentiam (variant I)	2.64 (0.82)	12
Pragmatic argumentation	5.03 (0.57)	12
Other reasonable argumentation	5.27 (0.60)	12
Tu quoque	3.83 (0.86)	4
Direct personal attack	2.76 (0.93)	4
Shifting the burden of proof	2.47 (0.94)	4

and of the three fillers studied is found to be the least unreasonable (in a relative sense). In short, these results are a positive indication for the validity of the data and justify further analysis of the fallacy concerned in this study, i.e., the *argumentum ad consequentiam* (at least the first, pragmatic variant of it).

The 39 students, so it seems from the results in Table 7.3 (see top half), strongly discriminate in reasonableness between the *argumentum ad consequentiam*, the sound pragmatic argumentation and the sound non-pragmatic argumentation ($F(2,58) = 47.28$; $p<0.01$; $ES = 0.45$). As predicted, they do not discriminate between the pragmatic and non-pragmatic argumentation (which are both deemed reasonable, more or less to the same extent ($F(1,58) < 1$)). As predicted, *argumentum ad consequentiam* is considered an unreasonable move (in an absolute sense), without a shadow of a doubt (in this case 2.64); this move, is considered yet again to be much more unreasonable (in a relative sense) than the two sound types of argumentation ($F(1,58) = 93.78$; $p < 0.01$).

The two predictions appear to be consistent with the data; from that it may be deduced, albeit with some caution, that the respondents are indeed sensitive to the type of argument scheme used in the argumentation. However, prudence is called for here – we have after all deliberately imposed a number of restrictions upon ourselves in this study.

Firstly, use has been made of very clear examples; no effort has been made to camouflage the *ad consequentiam* fallacies by, for example, giving them the look and appearance of pragmatic argumentation. That was perfectly feasible, for example, by giving the (descriptive) standpoint the appearance of a proposal ("we could better not think of that as ..."). It is quite possible that strategic adaptations like this, which will be applied in the next experiment, will lead to fewer rejections.

Secondly, only one of the two distinct variants of the *ad consequentiam* fallacy was studied. The variant that copies the *reductio ad absurdum* could perhaps give other reactions. In the next experiment both variants will be studied and the reasonable counterparts of both types of fallacy variants will also be systematically taken into account.

7.3.3 Set-up: Material – Variant II

Forty-three 5th year secondary (high) school students (Dutch VWO level) were offered 39 dialogue fragments. In 12 fragments the argument scheme rule was violated; in 6 of them the causal variant of the *argumentum ad consequentiam* (variant I) appeared and in the 6 remaining the logical variant of this fallacy (variant II) appeared. In addition to these 12 fallacious *ad consequentiam* fragments 12 sound fragments were included, in 6 of which appeared pragmatic argumentation and in 6 fragments *reductio ad absurdum* argumentation appears. These 24 fragments form the actual focus of this experimental study, the 15 remaining fragments are fillers (6 sound fragments, 3 fallacies of shifting the burden of proof, 3 direct attacks and 3 *tu quoque* variants of the *argumentum ad hominem*), once again to mask the aim of the study and in order to make stability control possible. Here follows an example of an experimental dialogue fragment with pragmatic argumentation and an example with the causal variant (variant I) of the *ad consequentiam* fallacy:

(Members of the Society of the Protection of Cruelty to Animals to real estate developers during the presentation of their plans for development)

A: We can better abandon the idea that in future there will be no need to build animal shelters.
B: How's that?
A: Because so many cats and dogs already end up on the street.

(Politicians to employers during a forum about the competitiveness of The Netherlands)

A: We can better abandon the idea that the Dutch economy lags behind the rest of Europe.
B: How's that?
A: Soon, we'll have less to spend than, for example, the Germans.

Note that both fragments, qua presentation, look very similar to each other; the standpoints brought forward by A both begin with: "We can better abandon the idea that". In the case of reasonable pragmatic argumentation there subsequently follows an (indirect) proposal: "Let's build more animal shelters." In the case of the *argumentum ad consequentiam* it also looks as if a plan is suggested, but upon further reflection of the propositional content it turns out that there is no plan whatsoever, nor can there be one: After all, it is impossible to understand the observation that The Netherlands lags behind the rest of Europe as a plan or a proposal. In the experimental fallacious fragment concerned, by using such phrases as "We can better abandon the idea that" it is implied that there is a proposal, but that simply is not possible due to the nature of the expression concerned. Unlike the standpoint, the arguments in both types of dialogue fragments correspond with each other qua nature: Both have a normative character and both now express an undesired consequence.

In the case of the logical variant of the *argumentum ad consequentiam*, in the fallacious and reasonable fragments it is not so much the *standpoint* that is manipulated but the *argument*. The nature of the standpoint is kept under control in both cases: The propositional content continuously relates to a descriptive phrase such as "It can't be anything else but that," a phrase that is typical of *reductio ad absurdum* reasoning. In reasonings of this type the actual character of the standpoint has to be presented as clearly as possible. In the fallacious *ad consequentiam* variant it has been attempted in the formulation of the argument to take over and/or imitate the actual nature of the *ad absurdum*, but the real content is indeed an undesirable consequence. The phrase "because otherwise we" seems to suggest the signaling of a fact, but in fact masks the normative character of the argument concerned. Here follows an experimental dialogue fragment of the *reductio ad absurdum* respectively the logical variant of the *argumentum ad consequentiam*:

(Teacher talking to parents of a student at the senior class party)

A: It can't be anything else but that John studied for his exam this time.
B: What do you mean?
A: He passed and he would not have done so otherwise.

(Journalist of a local newspaper to colleagues at the editorial desk)

A: It can't be anything else but that the CNN news is neutral in its news coverage.
B: Why do you think that?
A: Because otherwise we have no source for objective news coverage.

Can the respondents see through all these camouflages now that at first glance the fallacies cannot be distinguished from their reasonable counterparts? Are they capable of distinguishing the reasonableness of the fallacious variants under these specific circumstances?

7.3.4 Results – Variant II

The fillers behaved themselves in accordance with the prediction based on the results from previous studies (see Table 7.4): Of the three types of fallacies the *tu quoque* variant was once again considered by far the least unreasonable discussion move, while the direct attack and the fallacy of shifting the burden of proof were, as is usually the case, found unreasonable to more or less the same extent – a positive indication for the validity of the data.

The respondents seem more than capable of discriminating between the causal variant of the *argumentum ad consequentiam* and its sound counterpart (in this case pragmatic argumentation (($F(1,12) = 21.16$; $p<0.01$; $ES = 0.37$)): Pragmatic argumentation is deemed reasonable (in an absolute sense) (in this case 5.03), the corresponding causal variant of the *ad consequentiam* fallacy is found to be unreasonable (2.96).

Table 7.4 Average reasonableness score for 3 types of reasonable argumentations: *reductio ad absurdum*, pragmatic argumentation and non-pragmatic argumentation, and for 2 types of fallacies: *argumentum ad consequentiam* (in the pragmatic variant and in the logical variant). Bottom half of the table: average reasonableness score for 3 types of fillers (*tu quoque*, the direct personal attack and the fallacy of shifting the burden of proof); k = number of representations

	Average	k
Reductio ad absurdum	4.39 (0.64)	6
Pragmatic argumentation	5.03 (0.63)	6
Other reasonable argumentation	5.32 (0.60)	6
Argumentum ad consequentiam (prag. variant)	2.96 (0.70)	6
Argumentum ad consequentiam (log. variant)	3.92 (0.74)	6
Tu quoque	3.54 (0.99)	3
Direct personal attack	2.45 (0.76)	3
Shifting the burden of proof	1.98 (0.63)	3

However, the respondents did *not* discriminate in reasonableness or unreasonableness between the logical variant of the *argumentum ad consequentiam* and its reasonable counterpart, *reductio ad absurdum* argumentation ($F(1,13) = 1.49$; n.s.). Of the fallacies examined in this study, the logical variant of the *argumentum ad consequentiam* is found to be the least unreasonable (3.92; in absolute terms: neither reasonable, nor unreasonable), of the reasonable dialogue fragments the *reductio ad absurdum* argumentation is found to be the least reasonable (4.39; in absolute terms: neither reasonable, nor unreasonable).[7] These results denote that our respondents hardly know what to do with these two types of discussion moves: They are not really convinced of the reasonableness of the *reductio ad absurdum* argumentation, and they are even less convinced about the fallacious character of the logical variant of the *ad consequentiam*.[8] The empirical data supports the theoretical distinction

[7] *Reductio ad absurdum* argumentation is found by respondents, although reasonable in an absolute sense, to be more unreasonable in a relative sense than the two remaining reasonable types of argumentation (in this case pragmatic and non-pragmatic) (first Helmert contrast: pragmatic versus non-pragmatic argumentation ($F(1,17)<1$); second Helmert contrast between, on the one hand *reductio ad absurdum* and, on the other hand, the pragmatic and non-pragmatic reasonable argumentation: ($F(1,17) = 4.49$; $p < 0.05$)). It is, by the way, for the first time in this series of experiments that we see substantial differences in reasonableness between different types of reasonable argumentations.

[8] The fact that the *reductio ad absurdum* does not often occur in everyday conversations – so we assume – means that the respondents are not very familiar with this type of reasoning. Considering the specific status of this type of reasoning, it seems that the *reductio ad absurdum* is used particularly in scientific (in this case mathematical and logical) contexts where something is proved by showing that the opposite is not true or in scientific discussions where no evidence can be produced. By using the opposite of a standpoint as a starting point for the evidence to be produced (namely that the starting point is in fact wrong) it will be possible in these types of discussions to decide about the truthfulness or falsity of the content of that standpoint. Conversely, pragmatic argumentation occurs very frequently in everyday conversations, particularly in those contexts where a decision has to be made or a choice has to be made from various alternatives and the pros and cons have to be weighed. It is likely that the respondents are familiar with this type of reasoning and

made earlier between the two variants of the *argumentum ad consequentiam,* something that as yet has to be affirmed by the fact that the first of our two variants of this fallacy (the one that copies pragmatic argumentation) is found to be considerably more unreasonable than its logical variant ($F(1,13) = 7.35$; $p < 0.05$; $ES = 0.09$).

In the perspective of the consistent, uniform results of all our earlier empirical studies where the fallacies are consistently judged to be unreasonable while the non-fallacious counterparts, according to our respondents, may enjoy the predicate "reasonable," the results presented here are surprising, to say the least. For the first time the respondents have judged a reasonable discussion move to be barely reasonable (in this case the *reductio ad absurdum*),[9] and it is also the first time that the respondents reject an unreasonable discussion move as hardly unreasonable (the logical variant of the *argumentum ad consequentiam*).

7.3.5 Respondents' Motivations

Half of the respondents (22 in total) were asked to give a brief account of their reasonableness scores in 9 of the fragments: 3 times for the logical variant, 3 times for the causal variant and (on account of the stability control) 3 times for the fragments where the fallacy of the direct personal attack occurred. [10] In many cases, the comments made were – once again – no more than "I don't really agree," "I think A's last reaction is unreasonable, but I don't exactly know why," "Just because," or no answer was given at all.

As far as the motivations relating to the direct attack are concerned these *grosso modo* are largely in line with the judgments of the respondents in the experiment described in Chapter 3. In this experiment too the majority of the respondents are capable of indicating what they find so unreasonable about B's reaction: "B stops A from having an opinion on this subject," "A is entitled to his opinion" or "It is not

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are therefore better able to judge if this type is used in a sound or unsound way. The low chances of recognizing this type of reasoning therefore explain, in our opinion, why the respondents had such difficulty in judging the reasonable and unreasonable form of this *reductio ad absurdum* reasoning: If the respondents are unfamiliar with the reasonable form in which something is proved by assuming – temporarily – the opposite of it to be true, how can they then ever distinguish the reasonable from the unreasonable use of it?

[9]The fact that *reductio ad absurdum* argumentation can hardly be recognized and judged as sound argumentation can well-nigh not be pure coincidence: In the experiment, discussed in the Chapter 5, where the fallacy of immunizing a standpoint was studied and where 6 *reductio ad absurdum* argumentations acted as "fillers," an average score of 4.38 (0.71) was found, a value which is identical to the average score in this study apart from one fraction, 4.39.

[10]With hindsight it is of course a pity that we did not ask for their motivations for the judgment of reasonableness on the two relevant reasonable counterparts of the *argumentum ad consequentiam*: *Reductio ad absurdum* and pragmatic argumentation. Restrictions due to a lack of time for testing and methodological considerations of various kinds (considerations concerning a stability control, masking the aim of the study, the reliability of the motivations given) made sure that not more than three types of argumentation could be studied via motivation.

about whether or not A knows what he's talking about, B does not have the right to run down A's opinion." Slightly more than half of all the comments consist of these types of descriptions that one can classify in the "rule violations" category. A substantial number of comments pointed towards "lack of relevancy" to B's reaction: "It doesn't matter if A doesn't know anything about cars, B's reaction has nothing to do with A's comments." The odd respondent pointed to the lack of good manners. All in all, it may be concluded that the 22 respondents in this experiment delivered more or less identical comments as those in Chapter 3 – we may assume that our 22 respondents reacted "normally" in their motivations of the judgment of reasonableness in the case of the two variants of the *argumentum ad consequentiam*.

Via a (random) selection of 18 motivations a coding scheme was drawn up for the two variants of the *argumentum ad consequentiam* which consists of 5 categories:

1. An explicit description of the fallacy (herein the respondents indicate that there is an *alleged* causal connection or an *alleged* logical deduction in the fragments concerned between argument and standpoint, because the standpoint which includes the actual phrase is substantiated with a normative argumentative phrase (for example "You cannot prove the truth by expressing your own opinion" or "Speaker A does as though he produces evidence for his expression, but he only gives his opinion because that suits him")).
2. The argument is judged as *irrelevant* in relation to the standpoint; the lack of relation between the standpoint and the argument is recognized (the difference with category 1 is that this category consists of motivations where no (explicit or implicit) pronouncement is made about the actual phrase which is supported by a normative argument, but that is only indicated that the argument given is irrelevant in relation to the standpoint ("A's last reaction has nothing whatsoever to do with the first phrase" or "There is absolutely no connection between A's first and last phrase")).
3. An *alternative* argument is given besides the argument presented in the dialogue fragment: The alleged connection between standpoint and argument is accepted as a *sound,* acceptable connection (the difference with categories 1 and 2 is that the motivations in this category indicate that the relation between standpoint and argument, just like that presented in the fallacious dialogue fragments, forms a sound relation which is acceptable, but that the argument given is completely unconvincing ("It could be that less people should possess a car, but it is also an idea to give people more flexible working hours so that they are not on the road at the same time" or "Yes, that is quite correct, but traffic jams are sometimes caused by accidents")).
4. The presented argument in the dialogue fragment is designated as a *bad* argument (the motivations in this category – which, by the way, are difficult to interpret in an unambiguous way – largely consist of a short reaction where a purely negative judgment is passed on the quality of the argument ("This is a bad argument" or "A's last reaction is not good"). From the nature of things it is perfectly possible that the respondents see where it goes wrong in this category from a normative argumentation-theoretical perspective and that is exactly why this argument is

so inappropriate in view of the specific character of the standpoint, but unfortunately the respondents do not state in their motivations the exact reason why this is the case).
5. Remaining answers (left blank; illegible; positive judgment + positive rating).

The 132 motivations of the respondents (per variant of the *argumentum ad consequentiam:* $22 \times 3 = 66$) can be sub-divided as follows into the 5 categories of the taxonomy:

	Causal (variant I)	Logical (variant II)
Category 1	1	2
Category 2	15	2
Category 3	5	20
Category 4	12	6
Category 5	33	36

These figures speak for themselves and confirm our interpretations and conclusions with reference to Table 7.4: Taken from the frequencies in categories 1 and 2, the logical variant of this fallacy, unlike the causal variant that imitates pragmatic argumentation, is hardly recognized as a fallacy by our respondents.

7.4 The *Argumentum Ad Populum*

The name *argumentum ad populum* (literally, an argument directed at the people) only became generally accepted in the nineteenth century, thanks mainly to the books about logic and rhetoric from the English philosopher and logician Richard Whately. These days this "argument" is well-known as a form of *non-argumentation*: Instead of advancing arguments that guarantee the acceptability of the standpoint, other false (rhetorical) discussion weapons are thrown into the battle. If this last is the case, then the 4th pragma-dialectical discussion rule, the relevance rule, is violated: Instead of advancing argumentation for the standpoint under discussion, the *argumentum ad populum* appeals to the emotions, sentiments or prejudices of "the general public".

Using Aristotle's classic classification of the convincing and persuasion aids by means of the terms *logos*, *ethos* and *pathos* it can be stated that when using this *argumentum ad populum* (at least the variant we are discussing) *pathos* takes the place of *logos*. That is why this fallacy, when appealing to the emotions and feelings of the public, can be characterized as a (form of) *pathetic* fallacy. The eighteenth century English logician Isaac Watts, who was the first to describe the use of pathos in the convincing process as a fallacy, uses the appropriate characterization in this context: *Argumentum ad passiones*.

Below is an example of this pathetic *argumentum ad populum.* It originates from a letter (from Maria Heijmans) sent to the editor, referring to a talk show about the question of anti-terrorism threatening The Netherlands:

> When Mr. Diepenhorst talks about, for example, innocent women and children that have become victims of terrorism that is a false manipulation of the sentiments of the members of the jury. And probably because it is just as awful if men were the victims. Ordinary men or policemen or soldiers. Usually these men have wives and children and they always have a mother, who are heartbroken and sometimes get into difficulties whenever they have to miss these men (*de Volkskrant, January 14, 1978*).

In addition to the *argumentum ad populum* as a pathetic fallacy there is also an entirely different variant of the *argumentum ad populum* which is also known as the *populistic fallacy*. This is the variant we have concentrated on in our empirical study. What does this variant involve?

In the case of the populistic fallacy it is the *quantity* of people who hold a point of view, in short: The *number* of people that believe in something, that is used as an argument to support the standpoint: Something is the case because everybody thinks so. In English-language literature this fallacy is seen as a perfect example of "mob appeal" or, whenever the public is fewer in number and more exclusive, "snob appeal."

An example of this populistic fallacy comes from an advertisement from Black & Decker for a "dustbuster":

> From no other will you get as much pleasure for so long as with the one and only "Dustbuster" from Black & Decker. We do not say that lightly. We know that we have one million Dutch families on our side who will agree with us; so many "Dustbusters" are of daily service in The Netherlands (*de Volkskrant, May 1, 1984*).

In the case of this populistic fallacy, unlike in the case of the pathetic variant, there is argumentation offered, but the applied argument scheme has been wrongly chosen. Here an argument scheme has been used that is a specific variant of a symptomatic relation, appealing to the mass as if it were an authority. In this subtype of the so-called *authority argumentation* the expertise, the authority or the special position of a person or institution are considered to be a *sign* of the acceptability of the propositions which can be ascribed to the source. In other words, a proposition is accepted because an authoritative source says that is it so.

A protagonist can only apply this argument scheme in the defense of his standpoint if the antagonist acknowledges this as sound. However, if the protagonist chooses this argument scheme while he knows or could have known that the antagonist will not acknowledge this scheme on principle, then he is guilty of violating rule 8. The violation is known as the *authority fallacy* or the *argumentum ad verecundiam.*

The quoted authority does not necessarily have to be a person: It could also be a written source (for example, the Bible or *Das Kapital*), or a tradition or a number of people that think the same about something. The *argumentum ad populum* studied here (in the populistic variant) can also be characterized as a sub-variant of the *argumentum ad verecundiam.* Just like the *argumentum ad consequentiam* discussed

in the last section, the *argumentum ad populum* can be considered a fallacy which should not be left out of any self-respecting list of fallacies.

7.4.1 Set-up: Material

Forty-eight students were presented a total of 36 fragments; in 6 of them the populistic fallacy was committed (see Table 7.5 for an exact division of the fragments in the test). As was the case in the previous study into the *argumentum ad consequentiam*, this fallacious argument was deliberately contrasted with pragmatic argumentation (at least as far as variant I is concerned) or with the *reductio ad absurdum* (variant II of the *argumentum ad consequentiam*). In this study the populistic fallacy was compared with what we shall call *populistic argumentation* for the sake of convenience. In this type of sound argumentation a (descriptive) standpoint is defended by referring to study results, interviews or questionnaires where "the people", "the majority", "the average American", in short, "the populum" is put forward as quantitative evidence for the acceptability of a standpoint.

Here follows an example of this populistic fallacy and an example of sound populistic argumentation:

(populistic fallacy)
(Tourists at Amsterdam International Airport)

A: Amsterdam is the most criminal city in the Netherlands.
B: Where do you get that from?
A: Well, everybody thinks that.

(populistic argumentation)
(A married couple visiting a trade fair where the theme is vacations)

A: France is a popular holiday destination
B: And what do you base that on?
A: From the results of a questionnaire it appears that most Dutch people go to France for their holidays.

Table 7.5 Average reasonableness score for the *argumentum ad populum* and for the two types of sound argumentation (populistic and non-populistic). Bottom half of the table: Average reasonableness score for the three types of fillers (*tu quoque*, the direct personal attack and the fallacy of shifting the burden of proof); k = number of representations

	Average	k
Argumentum ad populum	2.77 (0.80)	6
Populistic argumentation	5.02 (0.78)	6
Other (non-populistic) argumentation	5.88 (0.73)	6
Tu quoque	4.05 (0.72)	6
Direct personal attack	2.82 (0.72)	6
Shifting the burden of proof	2.84 (0.83)	6

7.4.2 Results

As appears from the results (see bottom half of Table 7.5) the three types of fillers behave once again as was expected: The *tu quoque* fallacy was found to be reported the most reasonable of the three types of fillers, the two other fallacies were rejected straight away.

The *argumentum ad populum* and the two sound forms of argumentation (in this case populistic argumentation and non-populistic argumentation) are discriminated from each other in a statistically reliable manner ($F(2,20) = 19.92$; $p < 0.01$; ES = 0.40). Between the two forms of sound argumentation that are both judged to be reasonable no further substantial difference in reasonableness was made (($F(1,20)<1$; first Helmert contrast), whereas the populistic fallacy appears to be found much more unreasonable than the two sound forms ($F(1,20) = 64.47$; $p < 0.01$; second Helmert contrast).

7.5 The Fallacy of the Slippery Slope

In addition to the *argumentum ad consequentiam* there is yet another well-known type of fallacy that can be placed in the cause-effect sphere, the fallacy of the slippery slope (Walton 1992c).[11] The scheme applied in this fallacy is often referred to in the professional literature as "argumentation from bad to worse."

The argument scheme pointing to outcomes or consequences – thus the scheme used in the case of pragmatic argumentation – is, as already said, a specific variant of a causal relation. One of the pertinent critical questions is if that which is introduced as an outcome really does emerge. If a measure is rejected on the grounds of the very negative effects it will have and these effects do not even emerge, then this scheme has been incorrectly *applied.*

A very common error that people make when using this scheme is that it is wrongly suggested that, in the case of a measure, we will irrevocably, with dire consequences, go from bad to worse. To this danger is referred in set phrases such as "Then it's hopeless," "It's every man for himself," "Then we get onto a slippery slope," "Then all hell has broken loose." In discussions about principle matters like the legalization of abortion or euthanasia we often see this type of fallacy being used. If we ever allow that (in this case euthanasia), it is argued, we open the floodgates to the gas chambers à la Nazi-Germany.

An example of this type was provided by the cabaret artist Freek de Jonge when he gave the interviewer of *Viva*, a women's magazine, his opinion about euthanasia:

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[11] How, from a historic point of view, the *slippery slope* came to be on the lists of "fallacies" in the introductory logic textbooks is according to Walton (who wrote a monograph on this fallacy) "something of a mystery". "Aristotle did not include the slippery slope argument in his original list of fallacies, and Hamblin (1970) makes no mention of it as a recognized type of fallacy (. . .). (It becomes) fairly common only in recent ones" (Walton, 1992, p. 5).

> I'll tell you where we're going. "We have decided to go on a ski vacation on Friday. If grandfather dies on Tuesday, we can bury him on Thursday and still go on holiday on Friday." Of course, it is not quite that far yet, but as soon as euthanasia becomes legal, that's what will finally happen. Everything we used to think of as noxious, euthanasia and the selection of Jews by the Nazi's, has been achieved for 80% and accepted for 100% (*Viva, 27 December–3 January 1992*).

In a second, similar example from Gijs Schreuders the slippery slope has even been explicitly mentioned:

> By legally recognizing that the end of one's life can be a self-determining act of an individual, we start down the slippery slope that leads irreversibly to the extermination of patients with a chronic illness and invalids (*de Volkskrant, 20 February 1995*).

The words used in the above-mentioned examples, such as "that's what will *finally* happen" and "irreversibly," are indicative of the fallacy of the slippery slope: It is exactly expressions that are as laconical as these that depict the sketched, fatalistic consequences as purely deterministic where there is absolutely no room for probabilistic thinking: Inevitably we are heading for a catastrophe.

Unlike in the case of the two fallacies discussed earlier, the *argumentum ad consequentiam* and the *argumentum ad populum*, in the case of the fallacy of the slippery slope a formal criterion is missing with which unambiguously can be determined if a concrete fragment meets the theoretical specifications of the abstract ideal model: When is a slope so slippery that one knows for certain beforehand we will glide off? When do we know it *really* is hopeless? From a technical-experimental point of view it is much more difficult – compared with the two fallacies discussed earlier, the *argumentum ad consequentiam* and the *argumentum ad populum* – to construct fragments that can be regarded as an adequate, realistic instantiation of the type of fallacy meant.

The inevitable consequence of this tricky problem is a loss of internal validity: Possible negative study results (the respondents think the *slippery slope* is a completely reasonable move) can easily be explained alternatively by pointing to the poor way of putting them into practice. It could also be the other way round: If the respondents think the *slippery slope* is unreasonable, that can easily be ascribed not so much to the deficient argumentative character of this move, but to the absurd non-realistic character of the constructed fragments, in which a very long causal chain of unlikely, consecutive consequences is presented that lead to a disastrous situation. Considering this problem (which incidentally also plays a role in the case of the fallacy which will be discussed in the next section, the false analogy) it is of the utmost importance to ensure that the fragments are constructed as realistically as possible.[12]

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[12] Wherever possible we tried to take dialogue fragments in which the *slippery slope* was committed from existing sources (newspapers, columns, letters that were sent to newspapers, interviews, etc) in an effort to guarantee the validity. Once constructed and adapted to the requirements of our experimental study, the fragments were judged by three pragma-dialecticians (working independently from each other) to see if they were up to standard. The same procedure was also applied to the construction of fragments with a fallacy of false analogy.

7.5.1 Set-up: Material

Once again six different types of fragments were constructed (see Table 7.6) based on similar considerations as those that played a role in the studies described in Sections 7.4 and 7.5. The constructed fragments that contain (sound) pragmatic argumentation form, of course, the crucial contrast with the fallacy of the slippery slope (after all, the underlying schemes for both types of argumentations are identical). In order to make reasonable pragmatic argumentation look a lot like the fallacy of the slippery slope, the consequences in the case of pragmatic argumentation were elaborated and drawn out as long as possible so that a long series (although not a chain) of desirable or undesirable "consequences" appeared. See the following examples:

(fallacy of the slippery slope)
(Two friends on the street)

A: I don't think you should throw your chewing gum on the street.
B: Why not?
A: Before you know it everybody will be doing it. And it won't be long before people dump their empty cans everywhere and in no time at all everybody will dump their trash on the street. Eventually the street will be so dirty that it will no longer be safe to walk.

(pragmatic argumentation)
(Father to his son)

A: I don't want you to get a tattoo on your upper arm.
B: Why ever not?
A: Before you know it, you'll change your mind. If you have the tattoo removed your skin will never be as smooth as it was before. And there are enough people who now regret their wrinkly skin, who wish they never had a tattoo.

Table 7.6 Average reasonableness score for the fallacy of the slippery slope and the two types of sound argumentation (pragmatic and non-pragmatic). Bottom half of the table: Average reasonableness score for three types of fillers (*tu quoque*, the direct personal attack and the fallacy of shifting the burden of proof); k = number of representations

	Average	k
Slippery slope	3.31 (0.78)	6
Pragmatic argumentation	4.97 (0.64)	6
Non-pragmatic argumentation	5.31 (0.66)	6
Tu quoque	3.55 (0.71)	7
Direct personal attack	2.62 (0.71)	5
Shifting the burden of proof	2.09 (0.79)	6

7.5.2 Results

Thirty-nine respondents took part in this study. It is evident from the results (see bottom half of Table 7.6) that the three types of fillers also behaved in this study as was expected: The *tu quoque* fallacy is found yet again to be the most reasonable, in a relative sense, the two other fallacies were strongly rejected.

The fallacy of the slippery slope, the (sound) pragmatic and non-pragmatic argumentations are, qua reasonableness, distinct from each other in a statistically significant sense ($F(2,18) = 9.62$; $p < 0.01$; $ES = 0.25$). As expected, the respondents made no distinction in reasonableness between the two sound types of argumentation, in this case the pragmatic and the non-pragmatic argumentation ($F(1,18)<1$; first Helmert contrast). On the other hand, the fallacy of the slippery slope was found to be much more unreasonable than the two other sound types of argumentation ($F(1,18) = 18.68$; $p < 0.01$; second Helmert contrast). Also in absolute terms, when it comes to the fallacy of the slippery slope the respondents judged it to be unreasonable.

7.6 The Fallacy of False Analogy

Mistakes made in connection with the argument scheme of the relation of analogy are known collectively as the *fallacy of false analogy*. Thanks to the work of the English logician Abraham Fraunce this fallacy made its debut in the professional literature in the seventeenth century. Just like the *fallacy of the slippery slope,* this fallacy has to do without a chic Latin name; it is usually referred to by the English term *false analogy*.

In a few specific contexts, for example, in the juridical (criminal) domain, the *use* of the scheme of analogy is under discussion. Some lawyers are of the opinion that the judge in the case of a loophole in the law may never make use of analogy argumentation (the so-called "analogy prohibition" in criminal law); others judge it less harshly. However, in everyday discussion contexts it is not so much the use of the scheme that is under discussion, but the way in which it is applied.

But when – under which conditions – is an analogy false? Sometimes it is evident that it is just plainly absurd to present cases as similar. Take the following example from a taxi driver in Amsterdam who responded as follows when he was interviewed on the Dutch news *NOS-journal* (1991) about the protests in the world of taxi drivers against the introduction of the so-called train-taxi:

> Interviewer: But it only concerns 15 train-taxis?
> Taxi driver: 15. Just a minute. If you put two rabbits together in a hutch, how many do you think they'll be in two months time?

Even if – according to the well-known saying – every comparison falls short, it would be going too far to conclude that every argumentation that is based on a

comparison relation is automatically wrong. Whether argumentation in which this scheme is used has to be called a fallacy depends on the answer to the critical question: Do the cases compared differ from each other on essential aspects? But what are these *essential* points, how great does the difference have to be before it can be concluded that there really is a *substantial* and "real" difference? As was the case in the fallacy of the *slippery slope,* the lack of unambiguous criteria which lead to a uniform answer to these questions causes complications in an experimental-technical sense. Once again the fragments to be constructed in which a false analogy appears must be sufficiently realistic if the internal validity is not to be violated.

7.6.1 Set-up: Material

The set-up of this experiment is identical to that of the three previous studies. The 47 respondents in this study were presented for judgment a total of 42 fragments (for the type of fragment and the number of instantiations in the test, see Table 7.7).

The fragments are again constructed in such a way that from a methodological point of view a *crucial contrast* can be realized: The fragments in which the false analogy was committed are compared to and contrasted with those where sound analogy argumentation was used. Here is an example of the fallacy of false analogy presented to our respondents (this example is literally based on a remark from Marco van Basten in an interview in *Football International* (March 2002)), followed by an example of sound analogy argumentation:

(fallacy of false analogy)
(Two members of the board of a football club talking to each other)

A: The rules of play for football should be adapted in order to make football more attractive to the public.
B: Why on earth should you think that?
A: In business they are continually trying to change their products to make it more attractive to consumers.

Table 7.7 Average reasonableness score for the fallacy of false analogy and for the two types of sound argumentation (analogy and non-analogy). Bottom half of the table: Average reasonableness score for the three types of fillers (*tu quoque*, the direct personal attack and the fallacy of shifting the burden of proof); k = number of representations

	Average	k
Fallacy of false analogy	3.14 (0.70)	13
Analogy argumentation	5.02 (0.67)	5
Non-analogy argumentation	4.74 (0.83)	6
Tu quoque	3.83 (0.74)	6
Direct personal attack	2.23 (0.65)	6
Shifting the burden of proof	2.62 (0.98)	6

(sound analogy argumentation)
(Daughter to her parents)

A: I think I should get 3 dollars pocket money a week.
B: Why?
A: When my sister was my age, she also got 3 dollars pocket money a week.

7.6.2 Results

Forty-six high school students judged the three types of fillers as expected. The fallacy of false analogy is found to be substantially more unreasonable than the fragments in which no rule is violated ($F(1,24) = 23.49$; $p < 0.01$; $ES = 0.29$). According to the respondents analogy argumentation is, qua reasonableness, no different than non-analogy argumentation ($F(1, 9)<1$).

7.7 Conclusions

The results of the empirical studies into violations of the pragma-dialectical argument scheme rule presented in this chapter provide a relative homogeneous consistent picture: Argumentation in which no pragma-dialectical rule is violated is consistently judged by the respondents to be reasonable, argumentation in which a rule is violated is in the majority of cases found to be unreasonable – whether it is the freedom rule (in the empirical studies presented here violated via a direct personal attack or via the *tu quoque* variant of the personal attack), the obligation-to-defend rule (in the empirical studies presented here violated via the fallacy of shifting the burden of proof) or the argument scheme rule (in the studies presented here violated via a variant of the *argumentum ad consequentiam*, an *argumentum ad populum*, the fallacy of the slippery slope and the fallacy of false analogy).

In view of the outcomes of the previous studies, it was clear that a certain degree of conventional validity could be ascribed to the freedom rule and the obligation-to-defend rule; from the studies presented in this Chapter it is evident that this conclusion also holds for the argument scheme rule. As to the fallacies studied in this Chapter, a remarkable and exceptional empirical outcome could be observed: Of the two distinct variants of the *argumentum ad consequentiam* only the causal variant (parasitic on pragmatic argumentation) was recognized as a fallacy and rejected as such, while the other variant, the logical variant (parasitic on the *reductio ad absurdum*), was hardly recognized as a fallacy; moreover, the reasonable counterpart of this variant (*reductio ad absurdum* reasoning) was not judged to be a reasonable type of argumentation either. The reason for these surprising results is in all likelihood the esoteric character of both the reasonable and unreasonable counterparts of the logical variant of the *argumentum ad consequentiam.*

In the case of this last fallacy, the *argumentum ad consequentiam,* we checked if the respondents could recognize and justify the fallacious character of the two

variants. Not a single respondent was capable of putting rule 8 into words; in only 6% of the motivations the respondents were able to give a more or less adequate explanation of the fallacious character of the logical variant of the *argumentum ad consequentiam*, whereas in 24% of the cases the causal variant could be justified in more or less clear terms.

The *argumentum ad populum*, the slippery slope and the false analogy are, just as is the case in the causal variant of the *argumentum ad consequentiam*, consistently rejected as unreasonable moves. As far as the logical variant of the *argumentum ad consequentiam* is concerned our respondents are not in the least convinced of its unreasonableness, nor are they convinced of the reasonableness of the reasonable counterpart of this discussion move (in this case the *reductio ad absurdum).*

Chapter 8
The Concluding Stage: The Concluding Rule

8.1 The Concluding Rule

In the following tirade from the Dutch feminist author and politician Anja Meulenbelt a fallacious train of thought is exposed. In her reaction to comments from Hein Roethof, who was in the 1980s a member of Dutch parliament for the PvdA (Dutch labor party) of the Second Chamber and – as spokesman for judicial matters – had branded the actions of the feminists against pornography as "self-appointed moral censorship," Anja Meulenbelt accused him of committing the *argumentum ad ignorantiam* fallacy, without actually using this term in so many words:

> The damaging nature of porno is not yet proven, says Roethof. Apparently he is unaware of the studies which have taken place. Almost all supporters of the liberalization of porno hark back to a couple of old studies which cannot prove that porno causes rape and turn the case around: It has been proven that there is no connection (*de Volkskrant* 12 September 1981)

The *argumentum ad ignorantiam* fallacy amounts to the following way of concluding: If it cannot be proven that x is the case, it is therefore proven that x is not the case (or, alternatively, if it cannot be proven that x is not the case, it is therefore proven that x is the case).

The *argumentum ad ignorantiam* is a fallacy that in the pragma-dialectical argumentation theory is situated in the last stage of a critical discussion: The so-called concluding stage. Up till then having a discussion can be in complete agreement with the other discussion rules but if an error is made in this last stage it can still hinder a difference of opinion from being resolved.

In the concluding stage – a stage that, quite wrongly for that matter, in the argumentation theoretical literature receives, by and large, little or no attention – it has to be established if the difference of opinion has been resolved and in whose favor. A joint solution to a difference of opinion requires that the protagonist and the antagonist agree among themselves who won the discussion – and who lost.

The discussion behavior of the discussants in this last stage of a critical discussion is governed by the pragma-dialectical concluding rule (rule 9): "Inconclusive defenses of standpoints may not lead to maintaining these standpoints and conclusive defenses of standpoints may not lead to maintaining expressions of doubt concerning these standpoints."

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8.2 Violations of the Concluding Rule

Violations of the concluding rule generally amount to no consequences or too many consequences being attached to the success of the protagonist or the success of the antagonist. If a protagonist has not succeeded in sufficiently defending his standpoint, then he has to be willing to abandon that standpoint; if the protagonist does succeed in defending his standpoint successfully, then the antagonist has to be prepared to waive his doubt on the standpoint.

Who, as a protagonist, has defended his standpoint successfully, may expect the other party – the antagonist – to retract his original doubt on the standpoint, but not any more than that. If the protagonist of a successful defense, for example, reaches the conclusion that he has now also proven his standpoint to be true, he has clearly gone too far: The successful defense of a standpoint depends after all, amongst others, on the material and procedural starting points chosen by the discussants in the opening stage of the discussion, and if these starting points are in fact rather weak, this will influence the quality of the resulting conclusion. The error the protagonist makes here is known in pragma-dialectics as the fallacy of concluding that a standpoint is true because it has been defended successfully. This fallacy amounts to a misunderstanding in the role of concessions. A dispute can only be resolved because the antagonist is prepared to make concessions which the protagonist can use during his defense. For that reason, it is often conceived as a specific variant of the *argumentum ad hominem* fallacy. By denying that the defense of a standpoint can only be successful thanks to the concessions of the antagonist, the protagonist also denies the relative character of every successful defense: A resolution to a difference of opinion is always *ex concessis.* Denying this leads to the misconception that a successful defense of a standpoint automatically implies that the truth has been established.

Turned around, should the protagonist's attempt to defend a standpoint be unsuccessful the antagonist may not conclude that it is now proven that the standpoint propagated by the protagonist is not true. Whoever does so confuses a non-mixed dispute with a mixed one, and in addition is guilty of thinking in terms of black and white. Only in a mixed dispute are there two standpoints for which the two different parties also have the burden of proof – the burden of proof of the one party does not lapse if the other party cannot successfully defend the opposing standpoint. Moreover, in the case of this fallacy the antagonist erroneously assumes that a discussion must always result either in a victory for a positive standpoint or in a victory for the opposing negative standpoint, thereby ignoring the possibility of entertaining a "zero standpoint": Pure skepticism, without even taking an opposing standpoint. If the antagonist's error means that from the loss of the opposing party it is automatically concluded in a mixed difference of opinion that his own standpoint is acceptable then the antagonist commits the fallacy of making an absolute of a failed defense, also known as the *argumentum ad ignorantiam.* For easy reference the violations of rule 9 by the protagonist and antagonist in the concluding stage are summarized in Table 8.1

Table 8.1 Violations of rule 9 by the protagonist and antagonist in the concluding stage

1. *By the protagonist*
– fallacy of refusing to retract a standpoint that has not been successfully defended
– fallacy of concluding that a standpoint is true because it has been defended successfully (*fallacy of making an absolute of the success of the defense*)
2. *By the antagonist*
– fallacy of refusing to retract criticism of a standpoint that has been successfully defended
– fallacy of concluding that a standpoint is true because the opposite has not been successfully defended (*argumentum ad ignorantiam*)

8.3 The Fallacious Nature of the *Argumentum Ad Ignorantiam*

From a pragma-dialectical point of view the *argumentum ad ignorantiam* – in whichever variant – is an obvious fallacy. In the literature about fallacies it is often remarked that although the *argumentum ad ignorantiam* in general may be considered to be a fallacy, there are nonetheless important, often situational or contextually determined exceptions. Copi, for example, is of the opinion that in criminal law the *argumentum ad ignorantiam* should be characterized as a guiding principle and should certainly not be considered a fallacy:

> Although this mode of argument is fallacious in most contexts, it should be pointed out that there is one special context in which it is not fallacious – namely, in a court of law; for in a court of law the guiding principle is that a person is presumed innocent until proved guilty (Copi, 1982, pp. 101–102).

With the expression "presumed innocent" Copi refers to our criminal law principle of the *presumptio innocentiae* which was mentioned in Chapter 6: The principle means that a suspect is innocent unless his guilt is proven; the consequence of this is that a suspect will be acquitted if his guilt cannot be legally and conclusively proven – a principle with which our respondents could reconcile themselves, as is evident from their judgments in the case of accusations whereby the accused could not defend himself.

Although initially there seem to be some similarities with the *argumentum ad ignorantiam*, upon closer examination the use of the *presumptio innocentiae* in criminal law does not amount to committing this fallacy. A suspect will indeed be acquitted due to "lack of evidence," but not because his innocence is thought to be proven: In other words, the acquittal means that the judge does not have to personally believe (or is in any other way required to believe) that the suspect is *de facto* innocent.

Also in the case of scientific (quantitative-empirical) studies a situation often presents itself which at first sight might show some similarities with the *argumentum ad ignorantiam*. The failure of an attempt to falsify a hypothesis will be viewed as support for the accuracy of this hypothesis. Often, the systematic execution of critical falsification attempts will, in the footprints of the critical-rationalistic philosopher of science Karl Popper, even be considered as the only way to accumulate

scientific knowledge and to bring about scientific development and progress. Falsification is Poppers alternative for the logical positivistic way of verification.[1]

Here too the apparent similarities with the *argumentum ad ignorantiam* do not mean that in the case of falsification there is indeed a fallacy. A failed attempt to disproof does not mean that the hypothesis can be concluded to be true, merely that it is in this critical attempt not shown to be untrue.[2]

The more the attempt to disprove fails, the stronger the hypothesis becomes. Nevertheless, a large number of failed attempts to disprove never lead to the conclusion that the truth of the hypotheses is proven, but only that it is corroborated – i.e. that for the time being it may be taken for granted that the hypothesis concerned can be accepted as true.

8.3.1 Set-up: Material

In total 51 respondents (secondary (high) school students (Dutch VWO level)) had to judge 36 fragments, 24 fragments contained a fallacy and 12 did not. Half of these 36 fragments constitute the experimental fragments. The remaining 18 fragments are fillers which fulfilled the task of "distracter." On the basis of their appearance, which deviated from the experimental fragments, they had – amongst others – to prevent that our participants would find out what the purpose of the study was. In order to make it possible that the interpretations of the dialogue fragments could be homogenized, all the fragments – both the experimental and the non-experimental ones – were offered in a "well-defined context." Before the respondents were asked to read and judge the dialogue fragments a short description of the context was given.

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[1] In the 1930s this verification criterion (in fact a criterion for the meaningfulness of statements) had been replaced by the logical empiricists with a somewhat weaker confirmation criterion i.e. the degree in which a theory can be confirmed by the observations made. In the eyes of Popper, this criterion also finds no mercy due to its inductivistic nature: A large number of observations could perhaps make a universal statement probable, but not logically enforceable.

[2] According to Popper, theories or hypotheses derived from them are not tested and/or falsified based on observations or "observational sentences" (as it is called in logical empiricism) but based on "basic sentences," singular statements which could serve as a premise in testing a theory or universal statement. Unlike the observational sentences of the logical empiricists, in the case of Popper basic sentences are not more directly connected to the observation or with the facts themselves than any theoretical statement: They are equally theoretically charged as all other statements. They differ only in their logical form of theoretical or universal statements because they are singular. According to Popper, the acceptance of a basic sentence by the scientific community – necessary in order to be able to test a theory – is a question of convention. Basic sentences conform to this conventionalistic position of Popper. Thus they are not statements that connect a theory to the observation or even a statement of pure observation, but statements that offer the logical possibility of testing a theory; the scientific community can agree to temporarily accept such basic sentences as true. Note the strong similarities between Popper's conventionalistic position in the case of testing theories and the pragma-dialectical views on the critical testing of the acceptability of a standpoint, where a successful defense or attack always takes place *ex concessis*.

In the 18 experimental fragments that are in fact important to this empirical study three types of argumentations were represented: Two of those were reasonable discussion moves, the other one was fallacious. The fallacious discussion moves all contained the *argumentum ad ignorantiam* (represented by 6 instantiations). Here follows an example:

> Thijs and Lieke's dog is sleeping the whole time in his basket. Thijs and Lieke are wondering what is wrong. Thijs claims that their dog is ill. Lieke is not so sure. The discussion ends as follows:
>
> Lieke: After all your explanations and arguments I'm still not convinced.
> Thijs: Well, what else can I say?
> Lieke: That proves that I'm right. The dog's not ill.

All experimental fragments, irrespective of the question if a fallacy has been committed or not, have the same build-up: Firstly the context is specified, so that it is clear what the standpoint to be discussed implies and who will act as the protagonist and who will be the antagonist. In all cases the dialogue is about a descriptive standpoint. Furthermore, in the background that is sketched it is made clear that there are only two discussants (their names are mentioned), that the difference of opinion is non-mixed (the antagonist only casts doubt), that the arguments have all been brought forward and that the discussion has now landed in its final stage. After this background information the "actual" dialogue follows which consistently comprises three turns:

(1) In the first turn the antagonist makes it clear in so many words that the protagonist has not succeeded in convincing him of the acceptability of the standpoint ("I still have my doubts," "After all your arguments, I'm still not quite sure," "You can say whatever you like, but I'm not convinced") and that he is therefore left with his original doubt.
(2) the second turn always comprises an explicit concession from the protagonist in which he admits having failed to defend his standpoint successfully ("No, apparently I haven't been able to prove it," "Well, apparently I haven't been able to convince you," "No, I see you still have doubts").
(3) In the third turn the antagonist commits the *ad ignorantiam* fallacy by concluding from the protagonist's failure to defend his standpoint successfully that the opposite standpoint should be accepted ("Now it has been established that," "Then it is clear that").

The two types of reasonable dialogues contain on the one hand what we shall call reasonable concluding moves (also represented by 6 instantiations) and, on the other hand, reasonable pragmatic argumentation (also represented by 6 instantiations). The experimental fragments where the antagonist closes the dialogue in a reasonable manner are constructed in such a way that they are qua form and content more or less identical to those in which the antagonist committed the *argumentum ad*

ignorantiam. However, they do differ on one cardinal point: In the fragments with a reasonable move the antagonist, of course, does not commit the *argumentum ad ignorantiam* in the third turn, but after the protagonist's concession in the second turn that his defense has resulted in a failure rightly concludes that the protagonist must retract his standpoint ("So you can't keep maintaining that," "But then you shouldn't keep claiming that," "Then I'm quite right not to agree with you"). It is expected that our respondents will reject the *argumentum ad ignorantiam* as an unreasonable discussion move, while they will approve the reasonable concluding moves. Here follows an example of this type of reasonable concluding move:

> Jelmer and Isabelle are having a discussion about whether vitamin pills really work. Jelmer knows for certain that these pills work but Isabelle has her doubts. The discussion ends as follows:
>
> Isabelle: You haven't provided a shred of evidence to prove that vitamin pills really do work.
> Jelmer: No, I wasn't able to.
> Isabelle: Then I'm quite right to remain doubtful about these pills.

The other type of sound argumentation concerns pragmatic argumentation, taking place in the argumentation stage. There is no theoretical reason for assuming that the two types of sound argumentation in these two discussion stages in a critical discussion vary qua reasonableness. We will also test this assumption: It is expected that our respondents will not differentiate in reasonableness or unreasonableness between sound pragmatic argumentation which occurs in the argumentation stage and sound concluding moves which are made in the concluding stage. Here follows an example of such sound pragmatic argumentation:

> Two friends, Ans and Marjo, are having a discussion in their break about whether or not one should laugh at mean jokes. Marjo thinks you should not, Ans wonders why not. Marjo comes up with arguments:
>
> Marjo: I don't think you should laugh at crude jokes.
> Ans: Why ever not?
> Marjo: Because there's always the danger that you might offend someone. It could have unpleasant consequences, more than you might initially realize.

The 18 experimental fragments (6 with an *argumentum ad ignorantiam*, 6 with reasonable (pragmatic) argumentation and 6 with a reasonable concluding move) constitute as "type of discussion move" the independent variable in this experiment.

The 18 non-experimental "fillers" contain 6 *tu quoque* fallacies, 6 direct personal attacks and 6 fallacies where the burden of proof was shifted. The function of these fillers is, as always, two fold: (1) Masking the aims of the study and (2) making a stability control possible.

8.3.2 Results

Table 8.2 provides the results for the three types of fallacies described in the previous Section that have to serve as "gatekeeper" of the validity of the data.

The three types of fallacies behave exactly as one might expect based on the previous empirical studies: Both the direct personal attack and the fallacy of shifting the burden of proof were found to be (in an absolute sense) unreasonable to more or less the same extent, while the *tu quoque* variant of the *argumentum ad hominem* leans towards reasonableness and (in a relative sense) was judged to be the least unreasonable of the three fallacies. In short, these results are a reliable replication of our earlier empirical findings and increase the confidence in the validity of the data and the findings regarding the *argumentum ad ignorantiam*, the fallacy we are concerned with here.

Table 8.3 shows that the students apparently made a marked difference in reasonableness between, on the one hand, the *argumentum ad ignorantiam* and, on the other hand, the reasonable concluding moves and reasonable pragmatic argumentation ($F(2,21) = 50.53$; $p < 0.01$; $ES = 0.50$).

As expected, the respondents do not discriminate between (sound) pragmatic argumentation on the one hand and sound concluding argumentation on the other hand: Both types of argumentative contributions are found to be reasonable to more or less the same extent (first orthogonal Helmert contrast: $F(1,21) = 2.88$; n.s.).

Conversely, the *argumentum ad ignorantiam* is without doubt in an absolute sense considered to be an unreasonable move (namely: 2.56). It is deemed to be much more unreasonable than the two reasonable argumentative moves (second orthogonal Helmert contrast: $F(1,21) = 134.17$; $p < 0.01$). All in all, these results provide a powerful confirmation of the expectations we have formulated.

Table 8.2 Average reasonableness score for the three types of fallacies: *tu quoque* variant, the direct personal attack and the fallacy of shifting the burden of proof; k = number of representations

	Average	k
Tu quoque variant	4.01 (0.94)	6
Direct personal attack	2.64 (0.60)	6
Shifting the burden of proof	2.91 (0.97)	6

Table 8.3 Average reasonableness score for the three types of argumentation: *argumentum ad ignorantiam*, sound concluding moves and sound pragmatic argumentation; k = number of representations

	Average	k
Argumentum ad ignorantiam	2.56 (0.71)	6
Reasonable concluding argumentation	5.01 (0.73)	6
Pragmatic argumentation	5.56 (0.56)	6

8.3.3 Respondents' Motivations

Why do the respondents reject the *argumentum ad ignorantiam* as an unreasonable discussion move? On what grounds? Do they perhaps have some basic (rudimentary) pre-theoretical insight in the nature of this violation of the concluding stage rule or have they relied on totally different factors?

In order to investigate this, the respondents were in half of the 36 dialogue fragments asked to briefly explain and motivate their reasonableness scores ("Briefly explain why you think the last discussion contribution of (name) was reasonable or unreasonable"). In 2 of the in total 6 instantiations of the *argumentum ad ignorantiam* further clarification and motivation of the reasonableness scores were asked.

To be able to analyze and interpret the verbal reactions of the respondents, a classification was made based on a random selection of 10 respondents from the total database. This classification consisted of 4 classes and was tapered to the *argumentum ad ignorantiam*. With the aid of this classification the motivations of all the respondents were sub-divided. The four classes are:

(1) Reactions that clearly show insight into the fallacious nature of the *argumentum ad ignorantiam* (such as "not being able to convince does not mean that it is not so," or "although he was unable to convince her, he could well be right");
(2) Dubious cases, i.e., reactions that perhaps indicate that there is some rudimentary insight but certainly do not show any mature explicit insight ("it's not right," "he just draws a conclusion," "that makes no sense at all, he has no reason to");
(3) Reactions that cannot be interpreted (such as "that depends on the situation," "odd discussion") or contain no motivation whatsoever;
(4) Reactions that merely refer to the content of a dialogue fragment but show no insight whatsoever.

From the verbal reactions to the two *ad ignorantiam* fallacies where a further clarification was asked (total number of reactions concerning these fallacies: $51 \times 2 = 102$) it seems that the respondents, at least a substantial number of them, had quite good insight into what goes wrong in the *argumentum ad ignorantiam:* 52 of the 102 reactions (which amounts to 51%) could be brought under class 1 of the taxonomy that is used.

To illustrate this result here follow several literal examples of motivations given by the respondents:

– Not being able to convince does not mean that it is not so;
– Because you cannot convince anyone that does not necessarily mean that you are right;
– Although one is not proven, this does not automatically make the other true;
– If someone is not convinced, that does not mean that the opposite is true.

8.4 Conclusion

The results of this experimental study into one, exemplary violation of the pragma-dialectical concluding rule lead to a clear image: Argumentative moves in which the pragma-dialectical concluding rule is not violated by the antagonist are judged as reasonable by the respondents, argumentative moves in which this rule is violated by way of an *argumentum ad ignorantiam* are judged to be unreasonable. Furthermore, considering their motivations of the reasonableness judgements, a large proportion of the respondents is quite capable of indicating exactly and accurately why the *argumentum ad ignorantiam* fails. It seems that our respondents' pre-theoretical conceptions regarding the *argumentum ad ignorantiam* are in line with the pragma-dialectical concluding rule.

Chapter 9
Conventional Validity of the Pragma-Dialectical Discussion Rules

9.1 Theoretical Starting Point of the Research Project Conceptions of Reasonableness

The theoretical starting point of our empirical research into the conceptions of ordinary arguers about the reasonableness or unreasonableness of fallacies reported on in this volume is the pragma-dialectical argumentation theory. Characteristic of this theory is that the fallacies are not, as is generally the case in approaches to fallacies based on logic, conceived as *reasonings* that are invalid from a formal perspective, but as *moves* in a discussion that are unreasonable from a dialectical perspective because they hinder, frustrate or even block the resolution of a difference of opinion on the merits: Fallacies are then violations of rules for critical discussion.

This specific pragma-dialectical theoretical starting point of our research project has had far-reaching consequences for the specific employment and design of the experiments which are reported on in this volume. This is expressed not only in the systematic order in which the various fallacies are studied but also in the *choice* of fallacies that are subjected to empirical study. The study has concentrated on fallacies that violate the pragma-dialectical freedom rule, the obligation-to-defend rule, the argument scheme rule and the concluding rule; these are, in a nutshell, the four rules that are indicative of the four distinct *discussion stages* distinguished in the pragma-dialectical argumentation theory.

It is true that we studied various fallacies stemming from the list of fallacies, but because they are approached from a totally different perspective they have as a consequence also another content and are interpreted differently; in addition, also completely "new" fallacies were studied in our project that are "generated" by the pragma-dialectical rules for critical discussion. The latter category includes fallacies such as the fallacy of declaring a standpoint taboo, the fallacy of declaring a standpoint sacrosanct, the fallacy of evading the burden of proof by presenting the standpoint as self-evident, the fallacy of evading the burden of proof by personally vouching for the correctness of a standpoint, and the fallacy of evading the burden of proof by immunizing the standpoint against criticism by using hermetical-essentialistic phrases in order to make it immune to criticism. Furthermore, some

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of the fallacies studied are "disassociated" by us on theoretical grounds into "new" types of fallacies. The *argumentum ad consequentiam*, for instance, has a variant that copies *reductio ad absurdum* and another variant that copies pragmatic argumentation. In the nomenclature of the traditional list it may seem to be the same type of fallacy, but the pragma-dialectical approach to this fallacy makes clear that we are in fact dealing with different fallacies.

In addition, in the project various fallacies that in traditional approaches are clustered together in one and the same nominal category are in our approach clearly distinguished from each other. Considered from the perspective of a critical discussion in which the resolution of a difference of opinion is at the forefront the fallacies of shifting the burden of proof and the *argumentum ad ignorantiam*, for example, which are traditionally seen as more or less coincidental "variants" of one and the same higher ranked category, do not belong to the same sort because they occur in different stages of a critical discussion. Such a categorical demarcation of these fallacies has of course far-reaching consequences for the nature of the design in which the fallacies concerned can and should be studied, for the choice of material, for the nature of the alternative explanations that have to be excluded, etc.

The theoretical starting point which we have chosen also comes to light in the specific way in which the fallacies were presented in the experiments. Without a single exception, they are all *dialectified*: The dialectified textual material presented to the respondents for judgment would have looked very different if we had, for example, used the traditional, monological description of the fallacies as in the introductory logic textbooks.

In the construction of the argumentative dialogues the characteristics of the *specific discussion stage* in which a certain violation of a rule is committed have been consistently taken into account. To keep possible intervening variables under control, the *analytical* aspects that play a role in the pragma-dialectical reconstruction have been taken into account each time: The type of difference of opinion (non-mixed versus mixed), the types of standpoints (descriptive, evaluating and inciting), the type of argument scheme (argumentation based on a symptomatic relation, a relation of analogy and a causal relation), the discussion stages (confrontation, opening, argumentation, concluding), the argumentation structure (simple argumentation, multiple argumentation, coordinative argumentation, subordinative argumentation), etc.

Last but not least, the chosen theoretical starting point has become manifest in the *specific* question which invariably turns up each time in every individual study and at every fallacy studied to the respondents: How *reasonable* or *unreasonable* do you think the contribution of this discussant is to the discussion? Other possible questions that could have been asked about the different aspects of fallacies – for example about the persuasiveness of an argument, the relevance of the argumentative moves concerned, their soundness or acceptability – are not immediately relevant for answering the main research question in the project. In light of the theoretical starting point fallacies are conceived as *unreasonable* discussion moves that are violations of rules for critical discussion and non-fallacious discussion contributions are considered in principle to be *reasonable* moves.

In this research project, we were definitely not primarily focused on the reasonableness or unreasonableness of individual (more or less coincidental) fallacies – our interest in the reasonableness and unreasonableness of fallacies was – and is – inspired by *theoretical* reasons that go beyond mere nosiness concerning a question like "What will ordinary arguers think of this or that fallacy?" The theoretical question at the heart of our research project, which was the *rationale* of the entire empirical study, is whether or not, and if so to what extent, the norms of ordinary arguers for judging the reasonableness of discussion moves correspond with the norms incorporated in the pragma-dialectical rules for conducting a critical discussion. In other words, at the heart of all our empirical studies was the potential *conventional validity* of the pragma-dialectical discussion rules.

Before we specifically go into the key question of what all the research carried out in this project has contributed with regard to our main concern, we will first give a "theoretically neutral" overview of a few of the most important findings. One could read the empirical studies that have been carried out purely as a series of more or less separate studies in which for the most part in each case another fallacy is at the centre of our attention. In this theoretically neutral overview our "theoretical parti-pris" is completely cast aside: Left out, amongst others, is the specific theoretical sequence dictated by the pragma-dialectical division of argumentative stages in the model for critical discussion and the accompanying rules. One theoretically charged aspect, however, can not be left out: This is the dialectical conceptualization of the fallacies and their dialectical presentation in the test items. All the fallacies studied in the present research project are, after all, resolutely and deliberately situated in the context of a debate and have been studied in that dialogical context.

9.2 Reasonableness Judgments on Individual Fallacies

In the introduction to this volume we posed the question what do ordinary arguers think of fallacies? Table 9.1 gives a coherent overview of the results of the empirical studies carried out into individual fallacies as they have successively been presented in the previous chapters, formulated in theoretically neutral terms. For easy reference, the results are combined into one table, without them being ordered in any particular fashion; only the average scores are presented for the individual fallacies and for their non-fallacious counterparts. Further, it has to be emphasized that the results in Table 9.1 do not offer a complete overview of the results obtained, but only a selection – the *argumentum ad hominem* and the *tu quoque* variant of the *argumentum ad hominem* for example were both judged on reasonableness more than 25 times, but (in order to maintain the orderliness of the overview) in Table 9.1 only the average in the very first study centered around that specific fallacy is presented.

If we ignore the suspect average reasonableness score of the fallacy of evading the burden of proof via immunizing the standpoint against criticism (the ecological validity of the study concerned is likely to be dubious), then, on the basis of

Table 9.1 Overview of average reasonableness scores for the fallacies studied and the non-fallacious counterparts

	Fallacious argumentation	Sound argumentation
1. *Argumentum ad hominem* (abusive variant)	2.91	5.29
2. *Argumentum ad hominem* (circumstantial variant)	3.89	5.29
3. *Argumentum ad hominem* (*tu quoque* variant)	4.45	5.29
4. *Argumentum ad baculum* (physical variant)	2.04	5.64
5. *Argumentum ad baculu*m (non-physical variant)	2.91	5.64
6. *Argumentum ad baculum* (direct variant)	1.86	5.41
7. *Argumentum ad baculum* (indirect variant)	3.72	5.41
8. *Argumentum ad misericordiam*	3.86	5.06
9. Fallacy of declaring a standpoint taboo	2.79	5.14
10. Fallacy of declaring a standpoint sacrosanct	2.68	5.67
11. Fallacy of shifting the burden of proof (non-mixed difference of opinion)	2.37	4.51
12. Fallacy of evading the burden of proof (non-mixed difference of opinion) by introducing the standpoint as evident entirely matter-of-course	3.04	4.68
13. Fallacy of evading the burden of proof (non-mixed difference of opinion) by personally guaranteeing the correctness of the standpoint		
– via a promise	3.29	5.18
– via a directive	2.77	5.14
14. Fallacy of evading the burden of proof (non-mixed difference of opinion) by immunizing the standpoint against criticism via hermetical-essentialistic formulations	2.68	4.76
15. Fallacy of evading the burden of proof (mixed difference of opinion)		
regarding standpoints without presumptive status	2.72	5.68
regarding standpoints with presumptive status (truth candidates)	3.45	5.68
regarding standpoints with presumptive status (changes/revisions)	3.48	5.68
16. *Argumentum ad consequentiam*		
logical variant	3.92	4.39
pragmatic variant	2.96	5.03
17. *Argumentum ad populum*	2.77	5.88
18. Fallacy of the slippery slope	3.31	5.31
19. Fallacy of false analogy	3.14	4.74
20. *Argumentum ad ignorantiam*	2.56	5.56

Table 9.1, it can – in general – be concluded that ordinary arguers judge the fallacies studied as unreasonable discussion moves, while the non-fallacious argumentation with which the fallacies studied were contrasted were found, time and time again, to be reasonable to very reasonable. To this rather general conclusion at least one exception has to be made: Ordinary arguers hardly regard the *reductio ad absurdum* as a type of sound argumentation, just as they hardly see that the fallacy that copies this sound argumentation, the logical variant of the *argumentum ad consequentiam*,

is an obvious fallacy. Our respondents did not know what to do with both types of argumentation (in a sense something similar also applies to the *tu quoque* variant of the *argumentum ad hominem*; we will return to this later). Considering the striking consistency of the results obtained, apart from the exceptional case mentioned, it seems completely justifiable to conclude that ordinary arguers regard the fallacies studied as unreasonable discussion contributions.

On the basis of the results in Table 9.1, taking the absolute size of the empirical averages into account, it can also be concluded that there is a *considerable variation* as to the extent in which the fallacies studied are found to be unreasonable: Some fallacies are thought to be completely reprehensible, others were judged more leniently. For example, an *argumentum ad baculum* in which one is threatened with physical violence in a direct way is, without any hesitation, seen as unreasonable (the same applies to, for example, the fallacy of shifting the burden of proof), whereas, for example, that is to a much lesser degree the case in the fallacy of the slippery slope – a result that is intuitively plausible.

A *practical* implication of a didactic nature can be linked to the enormous variation in unreasonableness judgments concerning the fallacies studied in this project: In introductory courses in argumentation theory aimed at making students or pupils familiar with the problems of fallacies that are based on the didactical principle that in an introductory course first the least complicated, obvious cases should be dealt with and then the more complicated cases, first the fallacy of the *argumentum ad baculum* of the *abusive* variant of the *argumentum ad hominem* should be dealt with and only at a later stage the more difficult cases such as the *tu quoque* variant of the *argumentum ad hominem,* the logical variant of the *argumentum ad consequentiam* and its non-fallacious counterpart the *reductio ad absurdum*. Regardless of whether or not the didactical principle mentioned here is put into practice, in any case the results presented in Table 9.1 give a solid base to devote more attention and to discuss in more detail fallacies that tend to lean towards reasonableness in the argumentation courses than the more obvious cases.

Our last remarks seem on the face of it at loggerheads with the earlier general observation that our respondents considered the fallacies to be unreasonable discussion moves – what then is the sense of developing specific argumentation courses in which students are pointed out the malicious nature of fallacies? The students for whom such a course is meant are, by and large, in any case already convinced of their unreasonableness. However, one may not forget that in all the reported empirical studies time after time paradigmatic *clear cases* of the intended fallacies are constructed. In everyday practice it is often rather difficult to clearly identify fallacies and often appeals have to be made to context, background knowledge, knowledge of specific fallacies and special interpretation skills before a balanced decision can be made about the presence or absence of a specific fallacy. Moreover one may not forget that it is evident from our empirical studies that some fallacies, such as the logical variant of the *argumentum ad consequentiam*, are not at all recognized as a false move and that a number of fallacies, including the *tu quoque* variant of the *argumentum ad hominem*, are the one time considered to be a reasonable move

and the next time as an unreasonable move, depending upon the context. Add to this that although the average reasonableness scores of various fallacies are under the turning point of 4 on the reasonableness scale (neither reasonable nor unreasonable) they nevertheless come dangerously close to the "reasonable" score. This last remark sticks all the more if one realizes that, generally speaking, the standard deviation (the dispersion) of the reported average reasonableness scores for the individual fallacies is quite large – that means that even though a specific fallacy by and large (on average) may be considered an unreasonable move there are still a lot of respondents who think entirely different about this. Finally, from the more qualitative-orientated study in which the respondents were asked to motivate their reasonableness judgment it is obvious time and time again that many respondents had great difficulty answering the question why a discussion contribution was reasonable or not. It is easy to make a snappy judgment regarding the reasonableness of a discussion contribution, but substantiating why a specific contribution to a discussion is reasonable or not is quite a different matter: On numerous occasions no answer was given and when one was given it was more often than not based on superficial, intrinsic characteristics of the material presented for judgment.

Another consideration of a didactic nature is that in the pragma-dialectical interpretation of an adequate didactical practice fallacies should not be taught separately as independent discussion mistakes, but students or pupils have to understand them within the dialectical framework. Pragma-dialectics aims at developing a reflective attitude in relation to argumentation. As far as fallacies are concerned this means that students in particular have to understand the rules for reasonable discussion and their normative function; merely concentrating on a certain form of defective argumentation does not result in a fruitful didactic.

9.3 Considerations Concerning Our Conclusions

There is possibly still some room for doubt despite all the consistency. Are all the studied fallacies – apart from the fallacy of evading the burden of proof via the immunization of a standpoint against criticism – really regarded as unreasonable as suggested in Table 9.1? After all the averages presented in Table 9.1 are "merely" estimates – and estimates can of course fluctuate depending on the specific nature of the sample drawn (respondents) and depending on the specific nature of the concrete language material that is construed as an instantiation of an abstract ideal-typical category of "fallacy." Are the reported estimates really that accurate and/or stable? In short, are the estimates really so reliable that a generalizing conclusion is legitimate such as "ordinary arguers judge the fallacies studied to be unreasonable discussion moves and their respective non-fallacious counterparts in general as reasonable discussion moves?"

In a number of cases a replication study was carried out – sometimes to support interpretations, sometimes to exclude alternative explanations and in doing

so guaranteeing the internal validity, sometimes to optimize the external validity and then again to make it possible to carry out a qualitative study into the motivations and the reasons on which the respondents (say to) base their reasonableness scores on. Such replications are of course relevant for gaining insight into the reliability of the results obtained. For the sake of simplicity we will confine ourselves here to those replications that took place in The Netherlands.

As can be seen in Table 9.2, despite the fact that in these Dutch replication studies, amongst others, other respondents participated and other instantiations of a particular fallacy were construed, the results of the original and replication studies were – certainly as far as the *ordinal* relations are concerned – by and large strikingly similar to each other (replication 1 of the *ad hominem* study refers to the motivation study reported on in 3.5.1, replication 2 refers to the standpoint study in 3.5.4, replication 3 refers to the research reported in 3.5.2, and replication 4 refers to the study in 3.5.5).

Table 9.2 Average reasonableness scores for the fallacies in the main study and in the replication associated with it

ad hominem	Direct	Indirect	*tu quoque*	
Main study	2.91	3.89	4.45	
Replication 1	2.99	3.47	3.82	
Replication 2	3.08	3.82	4.15	
Replication 3	2.99	3.84	4.56	
Replication 4	2.32	3.16	3.76	
ad misericordiam	Direct	Indirect	*tu quoque*	
Main study	3.15	3.86	4.56	
Replication	2.93	3.32	4.29	
Taboo declaration	Taboo	Direct	*tu quoque*	
Main study	2.79	2.83	4.37	
Replication	3.18	3.06	4.52	
Evading (non-mixed) by introducing the standpoint as self-evident	Evading	Direct	*tu quoque*	
Main study	3.04	3.18	4.23	
Replication	2.81	2.57	3.93	
Evading (non-mixed) by personally vouching for it	Evading promise	Evading directive	Sound promise	Sound directive
Main study	3.29	2.77	5.18	5.14
Replication	3.07	2.68	5.08	4.92
Evading (mixed differences of opinion)	No presumptive status	Truth candidate	Changes	Accusations
Main study	2.72	3.45	3.48	5.28
Replication	2.55	3.51	3.57	5.45

Even though the estimates of the unreasonableness of fallacious and non-fallacious discussion moves in Table 9.1 are to a certain extent unreliable, they are nevertheless relatively stable. All in all, we may assume that the fallacies studied – apart from the logical variant of the *argumentum ad consequentiam* and the *tu quoque* variant of the *argumentum ad hominem* – are indeed usually considered to be unreasonable moves by ordinary arguers and, even though this is for the sake of clarity not reported on in Table 9.2, moves which do not violate the discussion rule are found to be reasonable.

Tables 9.1 and 9.2 together refute and negate at the same time a possible objection against the use of the 7-point Likert scale for measuring the reasonableness of discussion moves: How can we be so sure that, even when in the instructions to the respondents they deliberately have not been told and know nothing about the content, the meaning and the span of the crucial normative-theoretical term *reasonableness*, that the respondents start from more or less the same interpretation and meaning of the term *reasonableness*? Do the interpretations of the term *reasonableness*, which perhaps differ per individual, play a contaminating role in all the studies? Can this cardinal term *reasonableness* not be measured in a more adequate way is an objection one often hears from propagandists of the so-called "multiple scaling method," by means of a number of scales, each tapping a different aspect of the term (such as "adequate," "fair," "adapted," "acceptable," "founded," "to the point," "relevant" etc.)? Such scales taken together would perhaps provide a better and more valid coverage of the integral concept "reasonableness."

Different interpretations of the term *reasonableness*, if there are any, do not play a contaminating role of any significance for at least two reasons. Firstly, in virtually every study reported on in this book predictions were formulated about, for example, the ordinal relations in reasonableness between the fallacies studied in that particular study. For example, in the very first study, the *ad hominem* reported on in Chapter 3, it was predicted that the direct personal attack would be found less reasonable than the indirect personal attack and that this indirect personal attack in turn would again be found less reasonable than the *tu quoque* variant. Predictions such as these were time and time again confirmed by the data – the example given here was confirmed in four independent replication studies in The Netherlands and again confirmed in Spain, England, Germany and Indonesia. Such types of confirmations are simply unthinkable if every individual when judging the reasonableness or unreasonableness of discussion contributions were to have gone out from his own, unique and strictly particularistic conception of the meaning of the term *reasonableness*, a conception that hardly overlaps or shows similarities with those of other individuals. Reasonableness – certainly in The Netherlands – is a term that is frequently used in everyday speech and where definitely no diametrally different interpretations exist – something that was also obvious in the more qualitative-orientated study into motivations for the judgments of reasonableness that were given.

The results presented in Tables 9.1 and 9.2 are also equally unthinkable if every individual when judging the reasonableness of the fallacious and non-fallacious discussion fragments would have started from, i.e., would have gone out from his own, idiosyncratic interpretation and meaning of the term *reasonableness*. On the

contrary, there is a proper structure, system and consistency in the data that is totally incompatible with the objection brought forward; it is conceivable that the interpretations vary to a certain extent, but even then to a confined and controllable degree.

The objection against the use of only one scale for measuring the crucial term *reasonableness* does not hold good either as far as the present project is concerned: In the pragma-dialectical argumentation theory fallacies and non-fallacies are in a theoretical sense after all linked to the pragma-dialectical normative term *reasonableness* – about other aspects such as fairness, adequacy, ethnical acceptability, relevance, persuasiveness are in pragma-dialectics – a functionalistic procedural theory *pur sang* – as a matter of principle no judgments made – not because all these aspects, considered from a different theoretical perspective are *per se* unimportant or irrelevant; in the light of the theoretical starting point we have chosen they are simply not relevant. In addition to that – assuming for the sake of argument that *reasonableness* is indeed a vague term which various individuals could have very different interpretations about – one would indeed shift the problem if one tried to measure this covering term via a number of scales supposed to cover each a separate aspect of that term: Assuming that it is not entirely clear what precisely is meant by the term reasonableness, would that be clear then by using scales as "fairness," "adequacy" and such? From the results obtained it is clear that one single scale appears to be sufficient for measuring the term *reasonableness*, considering the consistency, the convergence and the confirmations of theoretical predictions in our empirical material.

Quite another type of criticism could be raised regarding the external validity of the empirical studies: The specific nature of the samples (of respondents) would severely restrict the generalizability of the empirical outcomes because in virtually all studies the participants were high school students aged 15–16. Admittedly, there is mainly experimented with high school students – but, in our opinion, that does not mean that the results are valid only for this particular group. The *ad hominem* study is, for example, replicated with a view to check the external validity using a sample of subjects quite different from high school students (in this case staff members of a bank), with similar ordinal results. As far as the absolute results are concerned, the more mature respondents are even more critical towards the fallacies compared with the younger subjects.

The only remaining question in this "theoretically neutral" overview of some of the most important findings in our experimentel research is: What about the reasonableness or unreasonableness of the *tu quoque* variant of the *argumentum ad hominem*? Is this fallacy judged to be a reasonable move or not?

All the individual studies into the reasonableness of individual fallacies were in this research project not only connected to each other in a *theoretical* sense – we will put aside this theoretical interdependence for a moment – but also in a *methodological* sense: Because of stability and validity considerations old "favorites" were always included in studies in which a "new" fallacy was investigated: Fallacies where the ordinal reasonableness relations were more or less established, in an empirical sense. In virtually every empirical study three fallacies, namely the direct

personal attack, the *tu quoque* variant of the *argumentum ad hominem*, and the fallacy of shifting the burden of proof were included: The direct personal attack should, on the basis of the strength of the consistent empirical findings in previous research, be consistently judged as more unreasonable than the *tu quoque*; the direct personal attack should, qua unreasonableness, hardly be distinguishable from the fallacy of shifting the burden of proof, while the *tu quoque* variant should tend towards reasonableness – incidentally a prediction that was confirmed time and time again in the studies carried out. But what about the reasonableness or unreasonableness of the *tu quoque* variant? In Table 9.3 an overview is presented.

For the benefit of an accurate interpretation of the results in this table, please note that in the top half of the table (up to and including the fallacy of shifting the burden of proof) the average reasonableness scores for the direct personal attack and the *tu quoque* variant are connected with a *specific* discussion context, namely

Table 9.3 Reasonableness scores for the direct personal attack and the *tu quoque* variant in several studies

	Direct personal attack	*tu quoque*
Ad hominem	2.57	3.66
Ad baculum-phys	2.86	3.78
Ad baculum-dir	2.70	3.22
Ad misericordiam-I	2.56	3.62
Ad misericordiam-II	2.82	3.71
Declaring a standpoint taboo	2.61	3.77
Declaring a standpoint sacrosanct	3.23	3.83
Ad hominem (Netherlands-replication)	2.99	3.82
Ad hominem (England)	2.85	3.64
Ad hominem (Germany)	2.99	3.93
Ad hominem (Spain)	3.39	4.01
Ad hominem (Spain replication)	2.43	3.45
Ad hominem (Indonesia)	3.21	4. 21
Shifting the burden of proof	2.80	2.83
Evading (non-mixed) by introducing the standpoint as self-evident entirely matter-of-course	3.09	3.88
Evading (non-mixed) by introducing the standpoint as self-evident entirely matter-of-course (replication)	2.04	2.71
Evading (non-mixed) by personally vouching	2.37	3.50
Evading (non-mixed) by personally vouching (replication)	2.37	3.17
Evading (non-mixed) by immunizing a standpoint	2.86	4.12
Evading (mixed)	2.44	4.24
Evading (mixed) replication I	2.49	3.83
Evading (mixed) replication II	1.85	4.25
Ad consequentiam	2.76	3.83
Ad populum	2.82	4.05
Slippery slope	2.62	3.55
False analogy	2.23	3.83
Ad ignorantiam	2.64	4.01

that of a scientific dialogue. In order to exclude alternative explanations such as politeness, the dialogue fragments with fallacies violating the freedom rule were offered in three discussion contexts. However, in the course of the research it gradually became apparent that the variable "politeness" played a marginal role in the case of the fallacies violating the freedom rule and an almost negligible role in the case of fallacies violating the obligation-to-defend rule; the variable "discussion context" was thus eliminated from all subsequent studies. Leaving out the discussion context as an independent variable does not imply that the presented dialogues would henceforth be offered to the responents without any context. Quite the opposite in fact. All dialogues are *without exception* constructed in a well-defined context, albeit that the context in some cases comprised of nothing more than a brief indication of the discussion partners and/or the location. The results in the top and bottom half of Table 9.3 are therefore not strictly comparable. However, in all the experimental studies the same pattern of results could be observed: The direct personal attack is found consistently less reasonable than the *tu quoque* variant, the direct personal attack is invariably considered as an extremely unreasonable move, the *tu quoque* variant is judged, without hesitation, as an unreasonable move provided that this move is made in a scientific discussion context; the *tu quoque* fallacy is sometimes judged as somewhat unreasonable, in an absolute sense, but tends to generally be judged as a reasonable move in a variety of not further specified discussion contexts. The *tu quoque* variant seems to be a typical borderline case. The conclusion that fallacies are generally considered unreasonable moves by ordinary arguers can therefore be upheld – albeit that for the *tu quoque* fallacy further subtle distinctions and more precision in terms of context are required. The latter applies, generally speaking, also to the circumstantial variant of the *argumentum ad hominem*.

Do the findings summarized above – fallacies are rejected by ordinary arguers as unreasonable and sound discussion contributions are considered to be reasonable – imply that we may ascribe the predicate "animal rationale" to ordinary arguers? Not automatically. Although it appears possible to model the behavior of ordinary arguers in terms of a normative theory, in this case the pragma-dialectical argumentation theory, when judging the reasonableness or unreasonableness of fallacies ordinary arguers are not only influenced by critical considerations of a purely rational nature, but sometimes also by psychological factors to which, by and large, a slightly less rational status must be ascribed; such factors, which are in the professional literature indicated by such words as "bias," "set," "prejudice," and "preconceived notions" have a contaminating influence on the judgements and generally lead to a biased, one-sided and subjective view of what one tends to call "reality."

Here are two examples of this contaminating influence taken from our own empirical study. In the study where the fallacy of declaring a standpoint taboo was examined we introduced – for the sake of ecological validity – loaded topics in the standpoints. As a consequence the respondents who agreed with the standpoint put forward by the protagonist and had committed themselves to that standpoint considered an attack on that standpoint (fallacious or not) much less reasonable

than the respondents who did not agree with the standpoint concerned – and the other way around, the less respondents agreed with a certain standpoint, the more reasonable they judged an attack on that standpoint to be. A clear example of prejudice and one-sidedness.

A second example which clearly shows the "perverting" influence of psychological factors on the reasonableness judgments (an example by the way in which we manipulated and predicted the influence just mentioned) concerns the study into the fallacy of evading the burden of proof in mixed differences of opinion. Entirely in line with the predictions, the respondents appeared to judge the fallacies of evading the burden of proof in a mixed difference of opinion as an unreasonable discussion move. However, if the burden of proof was evaded by a party who had the presumption on his side, this fallacious move was judged more leniently – at least in comparison with the situation in which it concerned an evasion of the burden of proof for a non-presumptive standpoint. In short, the behavior of ordinary arguers making their judgments on argumentative discourse may by and large be based on critical considerations of a purely rational nature, but occasionally this behavior shows human traits, which are sometimes a little too human.

9.4 Considering a Replication with "Realistic" Examples

The results presented in Tables 9.2 and 9.3 for the three variants of the *ad hominem* fallacy offer the possibility to set-up a study where a possible objection concerning the ecological validity of our study can be negated on empirical grounds. This objection, which is frequently raised against experimental studies in general, concerns the "artificialness" – and following on from that the "unnaturalness" – of the dialogues presented to the respondents: How can such constructed "unnatural" dialogues be relevant to and generalizable for the "rich" contextualized "real life" dialogues in everyday practice?

In Chapter 2 this objection is discussed in detail in a theoretical sense, explaining that we purposefully constructed all the dialogues we presented to the respondents on the grounds of methodological considerations. In Chapter 2 the objection against the artificiality – and following on from that the irrelevancy – of the dialogues was refuted on theoretical grounds. The objection is after all based on the incorrect idea that an experimental situation has to be a material representation of a non-experimental real-life situation if the findings obtained have to be generalized to a non-experimental situation. Since we now have a vast body of empirical data at our disposal we are able to negate this objection on empirical grounds by showing that the order of the reasonableness judgments regarding the three variants of the *ad hominem* fallacy – the *abusive* variant as the most unreasonable, followed by the *circumstantial* variant and finally the *tu quoque* variant – in the experiments can also be observed in "realistic" examples drawn from real life situations.

By the way, this replication with "real-life" messages focussed on the three variants of the *ad hominem* fallacy depended not only on the circumstance that the reasonableness or unreasonableness of these variants was so often looked into in our experimental study, but also on the fact that the variants concerned appear so often in everyday conversation: Concrete examples are relatively easy to find, something which cannot be said, for instance, about the *argumentum ad ignorantiam* in the concluding stage.

9.4.1 Selection of the Material

From a multitude of Dutch (daily) newspapers and magazines *(NRC Handelsblad, De Telegraaf, Het Parool, Algemeen Dagblad, Eindhovens Dagblad, Metro* and *Sportweek*) we first started collecting the letters to the editor sent to these newspapers from a period of 2001–2006, published in such sections as *Discussie* (discussion) and *Meningen* (opinions) in which the *argumentum ad hominem* appeared as well as those which contained sound argumentation. Second, from the original collection of 83 letters we chose those reactions in which the writer explicitly responded to a letter sent earlier to the same newspaper or magazine or responded to a publicly known standpoint. In short, only those letters were selected that could be characterized as "dialogical" could be declared applicable. The writers of these letters fulfill – analytically speaking – the role of an antagonist who tries to refute the standpoint of the protagonist by means of argumentation. Third, all the letters about topical, often politically tinted controversial issues such as policies concerning asylum, crime, euthanasia and so forth were set aside. To put it briefly, all those reactions that could mobilize the respondents' attitudes were excluded – only those reactions were added to the collection of possible texts to be offered to the respondents that contained non-loaded topics. Fourth, another selection criterion was the length of the letters; with a view to offering a number of "realistic" instantiations of the same ideal typical fallacy, we tried to select short letters. Fifth, letters that contained more than one *ad-hominem* fallacy were removed. Both the circumstantial variant and the *tu quoque* variant hardly ever appeared in a "pure" form; almost without exception all letters containing these two fallacies also had *abusive*-like elements. A typical example of this "mixture" of *ad hominem* elements was published in *Metro* (24 August 2006) in a response to a controversial public decision taken by the municipal executive of the Dutch town Hardinxveld-Giessendam about a penalty imposed on ProRail, who manage the railroad, in case they would make a sound on a Sunday while replacing rails: ProRail may work on a Sunday (the Lord's Day) as long as the Sunday's rest in Hardinxveld-Giessendam is not disturbed by noise:

Look who's talking about not working on a Sunday
Amongst all the wild messages about Bin Laden is one more message about mini Bin Ladens: The Christians of Hardinxveld-Giessendam that want to forbid *ProRail* from working on the railroad on Sundays.

> As their great example once said: Who is without sin . . .The minister who preached to them on Sunday telling them they may not work would never have done this without being paid. Therefore look who's talking.
>
> (A.J. van Gool, Eindhoven)

From a pilot it was obvious that respondents deemed this response unreasonable, not so much due to the *tu quoque* argument ("Look who's talking") but due to the abusive characterization of the Christians of Hardinkxveld-Giessendam as "mini Bin Ladens," making it useless as an experimental fragment. Finally, from the now considerably reduced pile of letters that were sent only those reactions were chosen which came closest to the abstract ideal-typical fallacy in question.

Applying the 6 criteria just mentioned resulted in a sample of 18 sent in letters with instantiations of the *abusive* variant, the *circumstantial* variant, the *tu quoque* variant and reasonable argumentation. Every fragment presented for judgment was to emphasize and explain the dialogical character preceded by a framed context in which the standpoint was explained to which the letter was a reaction. Here follows an example of the *abusive* category:

> In her column in the newspaper Metro the Dutch actress Victoria Koblenko wishes everyone who smokes in the presence of others to get cancer. Koblenko: "And for those who are spineless or have a preference for bad habits there is only one message: You can all get cancer, but not around me, thank you."
>
> **Koblenko an upstart soap actress with no respect**
>
> I was dumbstruck when I read the column of Victoria Koblenko in *Metro* of 9 August. It surprises me that a newspaper like *Metro* would even place an article from the little upstart.
>
> Everybody may express his or her opinion about smoking but to finish with "you can all get cancer" goes too far to my liking. Who in heaven's name does she think she is? She probably doesn't realize how hurtful this can be to certain people. But yeah, considering she doesn't have a brain, you can hardly blame her (Ellen Rath, Dordrecht, in *Metro*, 10 August 2006).

From a theoretical point of view, the final collection of sent in letters presented to the respondents was, despite all our efforts, not quite optimal: It was particularly difficult to find clear examples of the *tu quoque* variant which did not contain abusive elements. Naturally, this has adverse consequences for the construct validity of the manipulated independent variable in this experiment. Also, from the pilot study it seems that it was impossible for the respondents to judge all the 18 letters on reasonableness within a reasonable time span (45 minutes). Therefore it was decided to reduce the number of letters to 12. The group of respondents was randomly split in two; one group was presented with 3 instantiations of the abusive variant, 3 of the circumstantial variant and 6 of reasonable argumentation, the other group had to judge the same instantiations of the abusive variant and of the reasonable argumentation, but instead of 3 instantiations of the circumstantial variant they had to evaluate 3 instantiations of the *tu quoque* variant. Using this design it is still possible to compare and contrast the empirically obtained order

of reasonableness in the case of the three "realistic" *ad hominem* variants with the order which was seen time and time again in the case of the hypothetical, constructed examples.

9.4.2 Measuring the Dependent Variable "Reasonableness"

Apart from the theoretical and practical problems concerning the choice of "realistic" messages to be presented to the respondents, instructing the respondents was another rather tricky problem, at least from a methodological point of view. In all the studies carried out with hypothetical messages the respondents were presented very short dialogues consisting of two or three turns where they were invariably asked "how reasonable or unreasonable do you think the last contribution was to the discussion?" Via this unequivocal question the respondents are forced to focus specifically on the discussion contribution that does or does not contain a fallacy, which makes their reasonableness answers relatively easy to interpret. This benefits the construct validity of the dependent variable. Of course, such a question cannot be asked in the same way when it comes to the realistic letters sent to the editor. With a view to the comparability of the results obtained with hypothetical and realistic *ad hominem* fragments the respondents were asked to judge the reasonableness or unreasonableness of the argumentation in the letters in favor of a standpoint (by the way, without explaining the word "argumentation" or "standpoint" explicitly in the instruction).

In the instruction it was explained that many newspapers and magazines have a column for readers' letters where readers can respond to the news or to an opinion expressed in the newspaper by sending in letters, that such reactions cover a multitude of subjects and that the authors of these letters often argue in favor of their standpoints in their own particular way. The respondents were asked how they judged the way in which these writers substantiate their opinions. How reasonable or unreasonable do they think this manner is? We used capital letters and bold letter type to emphasize that the respondents should not let themselves be influenced by their agreement or disagreement with the writer's opinion: In the reasonableness judgments only the way in which the writer substantiated his opinion should be taken into account.

In order to ascertain if the respondents let themselves be led in their judgments by the argumentative reasonableness of the discussion moves (or the lack of it) and leave non-relevant aspects out of consideration it was decided in one variant of the experiment to mark those passages in the sent in letters that were indicative of the fallacy the letter contained (for example, in the letter "Koblenko an upstart soap actress with no respect" the very last sentence was marked: "But, yeah, considering she doesn't have a brain, you can hardly blame her"). In this variant the respondents were asked to base their judgments of reasonableness on the passage(s) marked on the way in which the writer of the sent in letter substantiated his opinion. In the other variant the sent in letters were presented for judgment without any markings whatsoever – thus in their original state. If the

results in the marked and unmarked versions are more or less the same then one can perhaps draw the conclusion that the respondents in the unmarked versions who had to judge the entire letter on its argumentative merits base their opinion on more or less similar argumentative considerations as the respondents in the marked versions.

In total 100 respondents (18–19 year old college students) took part in the experiment; 50 of them were randomly assigned to the marked version (i.e. condition), 50 to the unmarked condition. Within each version 25 respondents had to judge 3 instantiations of the abusive variant, 3 of the circumstantial variant and 6 of reasonable argumentation; the other half had to judge the same instantiations of the abusive variant and the same instantiations of reasonable argumentation, as well as 3 instantiations of the *tu quoque* variant.

9.4.3 Results

Table 9.4 shows the average reasonableness score for the group of respondents (total: $n = 50$) that had to judge the abusive letters, the circumstantial letters and the letters with reasonable argumentation.

The results for the marked version are not substantially different from those for the unmarked version ($F < 1$); moreover, the interaction between type of version and type of fallacy is significant either: ($F < 1$). Only the difference between the reasonableness of fallacies and sound argumentation appears to be significant ($F(2,14) = 16.23$; $p < 0.01$; effect size: 0.86). As was the case in all our previous research with hypothetical examples, in this study with realistic examples the abusive fallacy is again considered a much more unreasonable move than the circumstantial variant and reasonable argumentation ($F(1,14) = 26.69$; $p < 0.01$), while this circumstantial variant is judged to be more unreasonable than reasonable argumentation ($F(1,14) = 6.03$; $p < 0.05$). All these finding are consistent with our previous experimental results obtained in tests where use was made of hypothetical, constructed discussion fragments.

Similar conclusions can be drawn with reference to Table 9.5 where comparable results are shown, but this time concerning the *tu quoque* fallacy.

Table 9.4 Average reasonableness score for the abusive variant, the circumstantial variant and reasonable argumentation (realistic examples)

	Abusive	Circumstantial	Reasonable	Overall
Unmarked (n = 25)	3.15 (1.32)	4.51 (1.03)	5.49 (0.61)	4.38 (0.66)
Marked (n = 25)	3.37 (1.31)	4.32 (1.17)	5.07 (0.73)	4.26 (0.66)
	3.26 (1.31)	4.41 (1.10)	5.28 (0.70)	

Table 9.5 Average reasonableness score for the abusive variant, the *tu quoque* variant and reasonable argumentation (realistic examples)

	Abusive	*Tu quoque*	Reasonable	Overall
Unmarked	4.13	5.01	5.11	4.75
(n = 25)	(0.91)	(0.79)	(0.60)	(0.57)
Marked	3.19	4.53	5.08	4.25
(n = 25)	(1.08)	(0.81)	(0.60)	(0.56)
	3.63	4.77	5.10	
	(1.11)	(0.82)	(0.60)	

Once again the (reasonableness) difference between the marked and unmarked versions is insignificant ($F < 1$). The abusive variant is regarded, as usual, as considerably more unreasonable than the *tu quoque* variant and reasonable argumentation (*post hoc* test: $F(1,7) = 8.95$; $p < 0.05$), while the *tu quoque* variant, qua reasonableness, cannot be distinguished from reasonable argumentation ($F(1,14) = 0.42$). This pattern too is in agreement with all the results found in previous research.

The two groups of respondents that were offered partly the same and partly different material did not differ in their judgments on the unreasonableness of the abusive variant (3.63 (1.11) versus 3.26 (1.31)) nor in the judgment on the reasonableness of reasonable argumentation (5.10 (0.60) versus 5.28 (1.17)).

To summarize, it may be concluded that the experiment carried out with "realistic" texts more or less leads to the same findings as our experiments using constructed, hypothetical messages, at least as far as the three variants of the *ad hominem* are concerned. Who in this summarizing conclusion sees an argument to work with realistic examples that can be haphazardly plucked from "every day practice" should not forget that the realistic examples we used do not consist of a random sample from a population, but are *selected* on the grounds of a number of strict theoretical and practical criteria. Moreover, it should not be forgotten that the construct validity of both the independent variable and the dependent variable – in this experiment using "real life" messages is slightly problematic due to the use of realistic examples. Finally, what should not be forgotten is that all the interventions, measures and interpretations in this experiment could only be realized due to and against the background of what we had learned from our studies with constructed, artificial examples.

9.5 The Unreasonableness of Fallacies in a Pragma-Dialectical Perspective

The main findings in the research project given in the overview above were formulated in theoretically neutral terms (the fallacy is generally found to be unreasonable, while the non-fallacious counterpart is, by and large, found to be reasonable). In pragma-dialectical terms this conclusion can be reformulated as follows:

Discussion contributions where there is a violation of a pragma-dialectical discussion rule are consistently found to be unreasonable, while the contributions where there is no violation of the pragma-dialectical rule concerned are found to be reasonable.

Two questions, popped up by phrasing the conclusion in theoretical terms, are unanswered as yet: Unanswered so far that arise at the conclusion formulated in theoretical terms are: (1) Where there is a violation of the pragma-dialectical rule why do ordinary arguers consider the discussion contribution unreasonable and in the contributions where this is not the case why do they consider them reasonable? What type of norms lie behind their judgments – assuming for a moment that ordinary arguers associate themselves with norms when judging the reasonableness or unreasonableness of discussion contributions; (2) to what extent are these norms – assuming again that ordinary arguers associate themselves with them – in agreement with the rules in the pragma-dialectical ideal model? In other words, to what extent are the pragma-dialectical discussion rules conventionally valid?

A theoretically attractive but, from an empirical point of view, quite unsatisfactory answer to the first question is simply: Because the fallacious discussion contributions are violations of the discussion rules that are in a procedural sense *instrumental* for the resolution of a difference of opinion. In fact, in this answer the conventional validity of the pragma-dialectical discussion rules – assuming for a moment that they are indeed conventionally valid – is explained, at least for a large part, by the capacity of these rules to resolve problems, consequently to their problem validity. However, unlike the problem validity, the conventional validity of the pragma-dialectical discussion rules is not a purely theoretical matter but an empirical issue.

In quite a lot of experiments conducted our respondents had to motivate their judgments of reasonableness so that it could be checked if ordinary arguers are more or less aware and have also noticed where a specific fallacy goes wrong and – following on from that – if these ordinary arguers associated themselves with a set of more or less abstract discussion rules. Ordinary arguers may reject fallacies or accept sound discussion contributions but can they really substantiate their rejection or acceptance in more or less explicit terms and are they also able to indicate why they consider the fallacious moves unreasonable? In addition to this, do they appeal to more or less generally accepted norms? And if so, do these norms more or less accord with those incorporated in the pragma-dialectical rules for critical discussion?

Time and time again it seems, both in oral and written interviews it was obvious that our respondents in the age group 15–17 found it an extremely difficult abstract question to answer why a discussion contribution is reasonable or not – the issue about which our respondents apparently not have thought about in an explicit sense. People discuss matters daily, express doubt about standpoints brought forward, reject them, put forward counter-argumentation, withdraw original doubts about a standpoint which was brought forward, criticize arguments that have been put forward, etc. – but what general rules or principles lie behind all these daily verbal, social and rational activities of argumentation, that is an entirely different

matter as far as our respondents are concerned. The pertinent question ("Briefly indicate why you think the [last] discussion contribution is reasonable or unreasonable") generally led to a massive non-response – evidently not because the respondents were unwilling to answer, but due to their incapacity to do so ("I clearly feel there is something wrong, but I can't tell you why").

If on a more or less abstract level a relevant answer was given by a respondent from which initial insight into the rule concerned can be concluded, it seems this answer could not often be generalized and applied to similar new cases. More often than not in the case of such new instantiations our respondents reverted to idiosyncratic, unique intrinsic aspects of concrete language material. Difficult or not, all the same *most* of the respondents in the vast majority of the fallacies studied do see through – and can put this into words in quite explicit terms – on which grounds a certain fallacy may be called deficient, albeit not so much in abstract general terms referring to universal discussion rules but rather in concrete terms that are induced by the dialogue fragments to be judged in which the fallacy concerned was committed.

Motivating a given judgment of reasonableness appeared, at least for our respondents, to be the most difficult when it comes to the *argumentum ad consequentiam* and the easiest when it comes to the fallacy of shifting the burden of proof. Even in the case of the *argumentum ad consequentiam* (at least its pragmatic variant) the majority of our respondents are able to reject this move as an unreasonable move, although they are incapable or hardly capable of substantiating this rejection in explicit terms. This appears to indicate that the abstract reflective capacity to substantiate a judgment on the reasonableness or unreasonableness of a discussion contribution in more or less explicit terms is not in itself not a necessary condition for the acceptance or rejection of the move concerned. However, it seems this capacity is also an insufficient condition for the rejection or acceptance: In the case of shifting the burden of proof, for example, it was clear that virtually every respondent is capable of wording the relevant discussion rule that corresponds with the pragma-dialectical obligation-to-defend rule, but this does not lead to a consistent, systematic rejection of all discussion contributions in which the obligation-to-defend rule is violated. Undoubtetly, in the case of the formulation of the pragma-dialectical rule for the opening stage the respondents are triggered by the phrases used in the experiment such as "then you show that" or "you tell me why," "then you prove that," etc. – in short, phrases that made the respondents face the facts of the discussion rule concerned. What is for certain is that the same rule was referred to much less by our respondents when it came to other similar cases (instantiations) that cover the same obligation-to-defend rule when it concerned a fallacy of evading the burden of proof by personally vouching for the accuracy of a standpoint. Our original conclusion therefore remains intact: When motivating the rejection or acceptance, it is true our respondents, in incidental cases, do appeal to discussion rules, but these seem rather to be induced by superficial characteristics of the material to be judged – there is in any case no mention of far-reaching internalization and integration in the present existing knowledge at a profound level.

Now that our respondents in their motivations of the rejection or acceptance of discussion contributions hardly ever explicitly appeal to the discussion rules and it seems that even in an empirical sense the awareness of such rules – at least the ability to explicitly put these rules into words – is neither a necessary nor a sufficient condition for a positive or negative judgment of reasonableness on discussion contributions where a pragma-dialectical discussion rule has been violated, it appears, at least from an empirical point of view, that the qualitative oriented study into the motivations of the judgment of reasonableness provides no clear-cut conclusions for the (degree of) conventional validity of the pragma-dialectical discussion rules. The question that remains is in what sense can our comprehensive empirical study with its enormous amount of empirical data give indications for the degree of conventional validity of the four discussion rules studied for respectively the confrontation stage, the opening stage, the argumentation stage and the concluding stage.

In order to answer this question use is made of the quantitative term *effect size* (effect size = ES). Generally speaking this effect size (expressed as a number between 0 and 1) indicates how strong our respondents discriminate qua reasonableness or unreasonableness between a certain fallacy and the non-fallacious counterpart. The larger the effect size, the stronger the discrimination, and the other way around, the smaller the effect size, the less the respondents discriminate between the fallacious and the non-fallacious discussion moves. In a relative sense, the larger the effect sizes associated with the fallacies covered by a pragma-dialectical rule, the more the claim to conventional validity is substantiated. Table 9.6 shows these effect sizes.

The effect sizes for the pragma-dialectical rule for the confrontation stage vary from 0.13 to 0.57, with a median value of 0.38 (average: 0.35), those for the rule of the opening stage vary from 0.24 to 0.63 (median value of 0.41; average value: 0.41), those for the argument scheme rule vary from 0.00 to 0.40 (median value 0.29; average value: 0.26), while for the exemplary rule studied for the concluding stage the effect size is 0.50.

As a general conclusion it may be deduced from the median and average values that (1) the differences in degree of conventional validity between the four pragma-dialectical rules studied are far from spectacular and (2) the rules, generally speaking, are to a large extent conventionally valid to quite a strong extent. If one, despite the marginal differences, still wants to draw up an order of ranking in the degree of conventional validity, for the sake of convenience we better not take the rule of the concluding stage into consideration. After all this rule has only been exemplary studied – the obligation-to-defend rule for the opening stage would hold the top position, followed by the freedom rule for the confrontation stage and the argument scheme rule for the argumentation stage.

We have to add some comments to this general conclusion. First of all, the effect sizes reported in Table 9.6 only relate to part of the studies carried out – replications, for example, have not been taken into account. Firstly, if one were to take all the calculated effect sizes into consideration the conclusions would not be fundamentally different. Secondly, the accuracy of the estimates of degrees of conventional

Table 9.6 Overview of effect sizes (ES) for the discrimination between the average reasonableness score for the fallacy studied and its non-fallacious counterpart

	Violation	No violation	ES
Violation of the freedom rule: Confrontation stage			
1. *Argumentum ad hominem* (abusive variant)	2.91	5.29	0.47
2. *Argumentum ad hominem* (circumstantial variant)	3.89	5.29	0.21
3. *Argumentum ad hominem* (tu quoque variant)	4.45	5.29	0.14
4. *Argumentum ad baculum* (physical variant)	2.04	5.64	0.57
5. *Argumentum ad baculum* (non-physical variant)	2.91	5.64	
6. *Argumentum ad baculum* (direct variant)	1.86	5.41	0.29
7. *Argumentum ad baculum* (indirect variant)	3.72	5.41	
8. *Argumentum ad misericordiam*	3.86	5.06	0.13
9. Fallacy of declaring a standpoint taboo	2.79	5.14	0.46
10. Fallacy of declaring a standpoint sacrosanct	2.68	5.67	0.52
Violation of the obligation-to-defend rule: Opening stage			
11. Fallacy of shifting the burden of proof (non-mixed difference of opinion)	2.37	4.51	0.36
12. Fallacy of evading the burden of proof (non-mixed difference of opinion) by presenting the standpoint as self-evident	3.04	4.68	0.24
13. Fallacy of evading the burden of proof (non-mixed difference of opinion) by personally vouching for the correctness of the standpoint			
– via a promise	3.29	5.18	0.33
– via a directive	2.77	5.14	0.45
14. Fallacy of evading the burden of proof (non-mixed difference of opinion) by immunizing the standpoint against criticism via hermetical/essentialistic formulations	2.68	4.76	–
15. Fallacy of evading the burden of proof (mixed difference of opinion)			
for a standpoint without presumptive status	2.72	5.68	0.63
for a standpoint with presumptive status (truth candidate)	3.45	5.68	0.41
for a standpoint with presumptive status (changes/revisions)	3.48	5.68	0.45
Violation of the argument scheme rule: Argumentation stage			
16. *Argumentum ad consequentiam*			
logical variant	3.92	4.39	0.00
pragmatic variant	2.96	5.03	0.37
17. *Argumentum ad populum*	2.77	5.88	0.40
18. Fallacy of the slippery slope	3.31	5.31	0.25
19. Fallacy of the false analogy	3.14	4.74	0.29
Violation of the closure rule: Concluding stage			
20. *Argumentum ad ignorantiam*	2.56	5.56	0.50

validity vary somewhat per rule. For example, only one violation of the concluding stage was studied, so it makes little sense to make generalizing claims about the conventional validity of this rule. In contrast, the confrontation stage and the opening stage have been studied exhaustively as far as the nature of the appropriate fallacies are concerned.

Last but not least, the data in Table 9.6 only provide indirect "evidence" for the conventional validity. To put it negatively, the overview in Table 9.6 of the unreasonableness of fallacies and the reasonableness of non-fallacies leads to the conclusion that the results obtained do not go against the conventional validity of the pragma-dialectical discussion rules. After all, the moves that violate the rules are rejected for the most part, while the moves that do not violate the rules are generally accepted as reasonable discussion moves.

A comparison with the argumentation of a linguist with a radical empirical focus, who has made up a grammatical rule as a hypothesis for certain linguistic regularities and wants to test this hypothesis empirically, might have an elucidating effect. Imagine that this linguist in an experiment presents to the respondents his own constructed sentences, all of which constitute confirmation of the grammatical rule concerned, and also sentences that contain a violation of the same rule. He then lets these sentences be judged on acceptability by naive language users, assuming that none of the ordinary language users are capable of explicitly wording the grammatical rule concerned. Should the respondents consider the sentences that agree with the rule acceptable and reject those sentences that violate the rule, who would not want to conceive such results as a positive indication for the rule concerned? Of course, descriptive grammatical rules are of a different nature than the normative pragma-dialectical rules of a procedure for conducting a critical discussion, but the comparison makes clear which confirming or falsifying status in principle can be ascribed to empirical data when the conventional validity of rules is at stake.

The final conclusion of this comprehensive research project is that the body of data collected indicates that the norms that ordinary arguers use when judging the reasonableness of discussion contributions correspond to a rather large degree with the pragma-dialectical norms for critical discussion.

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