Chapter 5
Descriptive Studies of Argumentative Discourse

5.1 Qualitative and Quantitative Research

In argumentation theory we need to combine a normative orientation towards how argumentative discourse should be conducted in order to resolve a difference of opinion on the merits with a descriptive orientation towards how argumentative discourse is actually conducted. This means that, next to developing a model of a critical discussion and a code of conduct for reasonable argumentative discourse, we need to examine methodically how argumentation is actually produced, interpreted and judged in argumentative reality. In carrying out such research in the empirical component of our research program we have combined our normative and our descriptive interests by concentrating in particular on factors in the production, interpretation and judgement of actual argumentative discourse that are relevant from the perspective of resolving a difference of opinion on the merits as it is captured in our theoretical model.

In order to avoid confusion between observations on the descriptive and observations on the normative level, in describing argumentative reality we make a distinction between what is relevant from the practice-based empirical ("emic") perspective of the participants in argumentative discourse and what is relevant from the normatively-motivated theoretical ("etic") perspective of a critical discussion. When adopting the practice-based perspective we focus on the "interpretive" relevance and "judgment" relevance of the argumentative moves we examine to participants in argumentative discourse who are out to understand and assess these argumentative moves. When adopting the normatively-motivated perspective of a critical discussion we concentrate on their "analytic" relevance and "evaluative" relevance to the performance of a pragma-dialectical analysis and evaluation.[1] Interpretive and judgment

This chapter is primarily based on van Eemeren et al. (1989) and van Eemeren et al. (2009, 2012a, b).

[1]For these distinctions, see van Eemeren and Grootendorst (2004: 69–73). Judgement relevance is a new addition.

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relevance as well as analytic and evaluative relevance are pertinent to an adequate appreciation of the argumentative moves that are made in the discourse, but in describing argumentative practices taking the practice-based or the theoretically-motivated perspective may lead to different results.

We have differentiated between the different types of relevance playing a part in the "empirical" and the "theoretical" perspective along three dimensions (van Eemeren and Grootendorst 2004: 80–83). In the first dimension the question is of which discourse component the relevance is considered (e.g. the relevance of the propositional content of a reason that has been advanced). In the second dimension the question is which contextual domain demarcates the scope of the relevance that is considered (e.g. the relevance to the argumentation stage of the propositional content of a reason advanced). In the third dimension the question is in which respect the relevance is considered (e.g. the pertinence of the propositional content of a reason advanced in the argumentation stage to the acceptability of a standpoint). If the interpretive relevance, judgment relevance, analytic relevance and evaluative relevance of the argumentative moves at issue are clearly differentiated along these three dimensions, the problems involved in the descriptive research of argumentative moves can be discussed more precisely.

The descriptive research to be carried out in tackling the reality of argumentative discourse can be of the qualitative type, relying on insight based on observation and introspection, but it can also be of the quantitative type, relying on measurement based on numerical data and statistics. Whatever the type of methodology employed in the research, it will always be directed at describing the way in which differences of opinion are managed argumentatively. If the research consists of a case study or concentrates on the identification of specific properties of a particular type of argumentative discourse, qualitative research is usually most appropriate. If certain general hypotheses concerning the production, interpretation or judgement of argumentative discourse are to be tested in the research, this calls for quantitative and as a rule experimental research. Since each of the two types of research has a specific function in gaining a better understanding of argumentative reality, both have their own place in the pragma-dialectical research program. However, although introspective qualitative research of specimens of argumentative discourse may very well be undertaken for its own sake, in this research program it is often carried out in preparation of more-encompassing experimental quantitative research.

The qualitative research initially conducted in pragma-dialectics focused primarily on the way in which argumentative moves that are analytically relevant from the perspective of a critical discussion manifest themselves in argumentative discourse. What kind of verbal and other indicators provide a clue as to which of the various kinds of argumentative moves represented in the ideal model of a critical discussion have indeed been made in the discourse? The model of a critical discussion offers a theoretical framework for getting a grip on the analytically relevant aspects of argumentative discourse, but some elaborations and other adjustments are necessary to create a suitable starting point for carrying out descriptive research of argumentative reality. To cover all argumentative moves that are analytically relevant in a piece of argumentative discourse that is examined, more detailed "dialectical profiles" of the argumentative situation are required. In addition, the pragmatic commitments that may be ascribed to the arguers at a certain point in the discourse on the basis of their contributions to the discourse should be externalized. If these two preconditions have been fulfilled, qualitative research can provide useful descriptive insights into the conduct of real-life argumentative discourse.

Initially the quantitative research carried out in pragma-dialectics concentrated also on the argumentative indicators that arguers make use of in identifying argumentative moves. By means of theoretically-motivated experiments it was checked which factors in the verbal presentation of argumentative moves and the context in which these moves are made determine their identification as interpretively relevant moves. This experimental research was followed later by experimental quantitative research focusing on the reasonableness standards that are applied by ordinary arguers. Starting from the standards of reasonableness incorporated in the code of conduct for reasonable argumentative discourse, it was examined which standards of reasonableness ordinary arguers apply in judging argumentative moves. In this way it can be determined to what extent judgment relevance in argumentative discourse deviates from theoretically-motivated evaluative relevance. Current experimental quantitative research concentrates primarily on the properties of argumentative discourse that are responsible for letting fallaciousness go undetected in which the evaluative relevance is violated.

5.2 Argumentative Indicators in Discourse

Starting from the relevant dialectical profiles, we have examined systematically the various ways in which the analytically relevant argumentative moves distinguished in these profiles are realized in argumentative reality. Although these argumentative moves are generally not realized by the performance of speech acts in which their function is explicitly expressed, the discourse in which they are made often contains certain indicators of the argumentative function they are supposed to fulfil (van Eemeren 2010: 17–18). Sometimes these indicators are provided by the way in which the argumentative moves are phrased, but they may also be immanent in the linguistic micro-context, the situational meso-context, the institutional macro-context or the intertextual context of the discourse. In addition, helpful clues are sometimes obtained by making logical and pragmatic inferences or by utilizing relevant general or specific background information.

In our qualitative descriptive research we have concentrated primarily on making an inventory of indicators of argumentative moves that may be present in argumentative discourse (van Eemeren et al. 2007). First, we identified the specific words and expressions used by arguers to indicate the functions of the various moves they make in an argumentative discourse. Second, we classified these words and expressions in accordance with the argumentative functions of the moves concerned in the various stages of the resolution process that are distinguished in the model of a critical discussion. Third, we determined under which conditions these words and expressions fulfil these argumentative functions. The indicators of the functions of argumentative moves thus examined are not only to be found in the way in which the argumentative moves are verbally or otherwise presented in the discourse, but also in the way in which the other party responds to the argumentative move concerned and in the way in which the first party reacts to these responses.

Not every potential contribution to the critical testing process going on in resolving a difference of opinion on the merits is included in the model of a critical discussion. In the research of the indicators of argumentative moves this model can therefore not be the only frame of reference but needs to be complemented by the specification of the various analytically relevant argumentative moves that can be made that is provided in the relevant dialectical profile. In the model of a critical discussion it is, for instance, not specified which argumentative moves the parties are required or allowed to make in the opening stage in order to come to an agreement about their procedural and material starting points. We therefore had to make use of a dialectical profile which specifies the kinds of argumentative moves that can be instrumental in realizing the dialectical goal of this stage. In identifying the indicators of argumentative moves in other stages of the resolution process we utilized dialectical profiles which were specified in a similar vein. More in particular, we started from dialectical profiles portraying the specific tasks of the discussants at a particular point in a particular stage of the discussion and the various dialectical routes consisting of series of analytically relevant argumentative moves that are available to them.

Starting from a dialectical profile portraying the dialectical routes that can be chosen in defending a standpoint against criticism, we have, for instance, identified words and expressions such as "while", "whereas", "not even" and "and yet" that protagonists can use to indicate that the antagonist's doubts concerning a reason they have given are not justified. In defending a particular judgment or qualification arguers need to take into account that their opponent might come up with critical questions such as "But does your argument really justify that judgment?" or "Is what you mention in your argument normally not always the case, so that the reason you mention cannot justify that there is something special (i.e. negative or positive) about the case?". In such cases argumentative indicators such as "while" and "whereas" get easily combined with expressions such as "normally" and "otherwise". In that way it is indicated that "normally" something would not have been the case or that "otherwise" things would have gone differently. Thus arguers can make clear that potential objections against the reason they had given do not hold and that the positive or negative judgment they have given is justified.

In the following argumentation, for instance, the use of "whereas" is combined with "otherwise" by a student in defending the standpoint that his stipend has been a great help because it has allowed him to dedicate a lot of time to student government. In this case a critical opponent is supposed to wonder: "But couldn't you have devoted that time to student government without the stipend?" The arguer makes clear that this criticism does not hold, because then he would have had to take on a campus job to pay the bills and that would have interfered with his involvement in extracurricular activities:

> I wrote a letter to the administrative council, saying I can't tell you how much I appreciate the stipend. It has allowed me to dedicate so much of my time to SG, whereas otherwise I would have worked a campus job to pay the bills. (www.studentleader.com/sal_r.htm)

In determining the argumentation structure of complex argumentation three kinds of clues are instrumental: pragmatic clues in the way the arguer has presented the standpoint that is defended, dialogical clues in references to criticism that are made, and dialectical clues following from the procedural norms of critical discussion that the arguer is assumed to observe (Snoeck Henkemans 1997). Pragmatic clues, such as the use of quantifying expressions in phrasing a standpoint ("Everything is bound to go wrong"), may, for instance, make clear that the argumentation can only be interpreted in a sensible way if the reasons advanced in the argumentation (for instance, individual examples of things that are bound to go wrong) are in combination taken to constitute a justification of the standpoint at issue. Dialogical cues, such as the presence of a counter-argument, may make it clear that it depends on the type of criticism involved in the counter-argument that has been advanced in which way the structure of the protagonist's argumentation is to be analysed. Dialectical cues, such as the use of a particular argument scheme, may also point to a specific interpretation of the structure of complex argumentation because of the critical questions that are associated with the scheme and the assumption that the arguer will make an effort to deal adequately with them.

In coordinative argumentation, which consists of interdependent reasons in support of a standpoint, an attempt is made to remove the opponent's doubt or criticism concerning the sufficiency of the argumentation by advancing more than one reason. In a direct defence the coordinative argumentation is "cumulative" in the sense that the argumentation is strengthened by adding more evidence because the sufficiency of the first reason or any individual other reason is doubted or may be doubted by the other party. The use of the expression "and all the more since" in connecting the reasons that are advanced may be an indicator of such cumulative coordinative argumentation. In an indirect defence responding to (potential) criticism the coordinative argumentation is "complementary" when the argumentation is extended by adding an extra reason in order to counter a specific objection against the first reason that is made or expected to be made by the other party. The use of the words "and yet" in order to introduce the added reason may be an indicator of such complementary coordinative argumentation. In multiple argumentation the reasons that are advanced in defence of the standpoint at issue are independent of each other: they are separate attempts to defend the same standpoint. In using multiple argumentation in an argumentative exchange the failure or potential failure to convince someone (or some part of the audience) of the one reason may be the motivation for putting forward the other reason, so that the latter reason replaces as it were the (in fact still standing) former one. The use of the word "anyway" when the new reason is advanced is a clear indicator of multiple argumentation.

In the pragma-dialectical research program qualitative empirical research has also been brought to bear in examining other topics than the use of argumentative indicators. It has, for instance, been put to good use in interpreting the use of argumentative discourse in specific argumentative contexts, in treating specific stylistic phenomena in argumentative discourse and in dealing with specific argumentative speech events. In applying the pragma-dialectical theory to scrutinize argumentative discourse in the specific context of problem-solving discussions, for instance, systematic observation has led to the conclusion that the purposes of this kind of discourse and the purposes of a critical discussion are sufficiently in accordance with each other to warrant such a treatment (van Rees 1992). Following on from this conclusion, the actual treatment of problem-solving discussions in terms of a critical discussion is then pragmatically accounted for in more detail with the help of insights from speech act theory, discourse analysis and conversation analysis. In addition, in our research program qualitative empirical research has been conducted regarding the argumentative function of stylistic and other presentational phenomena that can be found regularly in argumentative discourse, such as repetition, metonymy, rhetorical questions and praeteritio.[2] Starting from the model of a critical discussion, the use of "dissociation" (the argumentative technique of remodelling our conception of reality by changing the conceptual meaning of a term) is also illuminated in qualitative empirical research (van Rees 2009). Last but not least, qualitative empirical research is brought to bear in dealing with particular specimens ("cases") of argumentative discourse. An example of this is the "Shell case", which centres around an advertorial published in international newspapers in which the oil company defends its role in Nigeria after having been blamed for the death of the writer and resistance fighter Ken Saro-Wiwa (van Eemeren 2010: 165–178, 182–183, 185–186, 209–212).

5.3 The Identification of Argumentative Moves by Ordinary Arguers

Next to carrying out qualitative empirical research, since the mid-1980s pragma-dialecticians have also been engaged in quantitative research of an experimental nature. This research concentrates in the first place on tracing general rules, routines and tendencies in the way argumentative moves are identified and judged by ordinary arguers who have not been trained in argumentation analysis. Because the results provide insights in the actual processing of argumentative discourse, they play an important role in establishing the necessary connection between the pragma-dialectical theory and argumentative reality. This connection is necessary for putting the normative ideal of a critical discussion in a realistic perspective and

[2]For repetition, see van Rees (2009); for metonymy, rhetorical questions and praeteritios, see Snoeck Henkemans (2005, 2009a, b, respectively).

developing adequate methods for improving argumentative practices in the practical component of the research program.

Quantitative empirical research that is closely related with the qualitative research regarding verbal indicators of argumentative moves discussed in Sect. 5.2 has been carried out to establish to what extent in argumentative reality the recognition of argumentative moves is facilitated or hampered by factors in the presentation. In the 1980s pragma-dialecticians conducted first several feasibility studies to ensure that the respondents in the experiment understand "argumentation" in the same way as the theoreticians (van Eemeren et al. 1984). In testing the suitability of the measuring instruments that are to be used the research concentrated on non-complex "single" argumentation, in which just one reason is articulated in defence of a standpoint. The desired conceptual validity of the theoretical concept of argumentation that was used was proven by the fact that the items submitted to the respondents were in 95% of the cases correctly identified as argumentation.

The results of our experimental research concerning the speech act complex at the heart of argumentative discourse, i.e. argumentation, suggests that the ease of recognition is significantly facilitated by the presence of verbal indicators. In the experimental messages used in the research concerning presentational factors influencing the ease of recognition four of these factors were systematically varied. First, both argumentation on a topic that is highly charged and argumentation on a topic that is not charged was included. Second, both argumentation relating to a standpoint that is marked was included and argumentation relating to a standpoint that is not marked. Third, both argumentation is which an argumentation indicator is present was incorporated and argumentation in which no such indicator is present. The undergraduate students serving as the research subjects were requested to indicate whether or not a number of discourse fragments presented to them with pieces of argumentation that were varied in this way contained, in their view, argumentation. They were to underline the argument if they thought this was indeed the case. The overall identification scores of the respondents proved to be remarkably high.

This research was replicated in two different ways to examine the precise effects of the four factors that were manipulated (van Eemeren et al. 1985). The first replication was undertaken to countermand the "ceiling effects" in the original test, in which the overall identification scores had been so high that differences between the impact of the various factors could not be registered. In the second replication a different instrument for measuring the dependent variable (i.e. recognition) was used and the messages were presented on a computer screen. This time the analysis concentrated on the decision times needed by the participants. The participants were asked to press a "yes" button as quickly as possible if they thought the discussion fragment presented contained argumentation and a "no" button if they thought this was not the case. Of the four variables that were manipulated, the influence of the presence of the indicators of argumentation proved to be the strongest, especially of indicators "in the broader sense" such as "owing to" and "on the basis of" that were preceding the argumentation. The absence of such indicators slowed down or hampered the identification of argumentation—in some cases even considerably. Only if no argumentation indicator was present, did marking the standpoint facilitate the identification of argumentation. If an indicator was present, the indicative function of the marking of the standpoint was as it were pushed to the background by its presence. In a retrogressive presentation (with "because"), when the argumentation is following the standpoint, identification turned out to be easier than in a progressive presentation (with "therefore"), when the standpoint is following the argumentation. A highly charged topic did not prove to be a factor with any significant effect.

In order to find out to what extent the identification of argumentation is an independent cognitive skill, rather than being based on general intellectual skills such as verbal comprehension and general reasoning, it was examined whether fourteen-year-olds in a Dutch secondary school could recognize argumentation without having received any systematic instruction (van Eemeren et al. 1989). After only a brief explanation of the concepts of "argumentation", "reason" and "standpoint", a relatively large proportion of second formers in a lower stream of a comprehensive school were not capable of identifying single argumentation, whereas a large majority of third formers could. Grasping the concept of argumentation turned out to be a "yes or no"-matter and the progress the young people made in identifying argumentation was considerably more substantial than that in verbal comprehension and general reasoning. Although it is related to other intellectual skills, identifying argumentation proved to be a relatively independent skill, which is developed in education.

Following up this research, attention was paid to the clues that the verbal presentation provides for the recognition of indirect argumentation. Contextual indication was expected to play a major part in the interpretation of indirect argumentation (and of implicit argumentation in general) by having a clarifying effect (van Eemeren and Grootendorst 1992: 56–59). The degree of conventionalization of the verbal presentation required for indirect speech acts to be interpreted properly is in principle inversely proportional to the degree of definiteness of the context in which they occur. Therefore in an indefinite context implicit and indirect argumentation should be harder to recognize than explicit and direct argumentation. To test this hypothesis, the participants in the experiment were confronted with fragments of discourse consisting of messages half of which were in a "split-plot design" supplied with a well-defined context and half of which were without such a context (van Eemeren et al. 1989). Both groups of items contained direct arguments and indirect arguments, with and without an argumentation indicator. All well-defined contexts serving as an independent variable were such that a literal interpretation of the fragment would be unsatisfactory. As expected, the communicative function of direct argumentation proved to be easier to recognize than that of indirect argumentation. In the latter case the subjects needed some extra information in order to know that something more was meant than what was literally expressed. As the tests show, a well-defined context provides the required information.

The results of experimental research into the performance of students in identifying unexpressed premises and argument schemes clearly indicate that, in the absence of disambiguating contextual information, unexpressed (“major” and non-syllogistic) bridging premises are more often correctly identified than unexpressed “minor” premises (van Eemeren et al. 1995). Other experiments have shown that causal argument schemes are more often correctly identified than symptomatic argumentation, but not more frequently than comparison argumentation (Garssen 1997). The sizable individual differences found in the identification of unexpressed premises and argument schemes are to a substantial degree correlated with school types of different levels, which indicates that they are related to differences in general cognitive capabilities. The primary aim of the argument scheme study that was carried out was to investigate to what extent ordinary arguers’ perceptions of the different types of relations between premises and standpoints correspond with the argument schemes distinguished in pragma-dialectics. The results of the tests made clear that the respondents had a very good understanding of comparison argumentation and a reasonably well-developed notion of causal argumentation while their pre-theoretical notion of symptomatic argumentation was less developed.

5.4 Ordinary Arguers’ Standards of Reasonableness

The theoretical question at the heart of the experimental quantitative research carried out in pragma-dialectics concerning ordinary arguers’ standards of reasonableness was to what extent the standards that ordinary arguers apply in judging the reasonableness of argumentative moves correspond with the standards incorporated in the rules for conducting a critical discussion (van Eemeren et al. 2009). In other words, the rationale of this comprehensive research project was finding out what the potential of gaining conventional validity is of the pragma-dialectical code of conduct for reasonable argumentative discourse. The research concentrated on fallacies that violate four specific rules that are indicative of the four distinct discussion stages distinguished in the theory: the Freedom Rule (Rule 1), the Burden of Proof Rule (Rule 2), the Argument Scheme Rule (Rule 8) and the Concluding Rule (Rule 9).

According to the theoretical starting point of this research, fallacies are unreasonable argumentative moves that are violations of the rules for critical discussion; if no rule for critical discussion has been violated, the argumentative move concerned is in principle reasonable. This starting point instigated the specific question that was invariably asked to the respondents about every fallacy: how reasonable or unreasonable do you think this contribution to the discussion is? The theoretical point of departure also becomes manifest in the experiments in the dialectified way in which the fallacies were presented in test items that consist of short critical dialogues. If the traditional, monological view of the fallacies from the logical textbooks had been adopted, the textual material presented for judgment to the respondents would have looked very different.

	Fallacious	Sound
1. *Argumentum ad hominem* (abusive variant)	2.91 (0.64)	5.29 (0.64)
2. *Argumentum ad hominem* (circumstantial variant)	3.89 (0.57)	5.29 (0.64)
3. *Argumentum ad hominem* (*tu quoque* variant)	4.45 (0.59)	5.29 (0.64)
4. *Argumentum ad baculum* (physical variant)	2.04 (0.80)	5.64 (0.39)
5. *Argumentum ad baculum* (non-physical variant)	2.91 (0.64)	5.64 (0.39)
6. *Argumentum ad baculum* (direct variant)	1.86 (0.66)	5.41 (0.62)
7. *Argumentum ad baculum* (indirect variant)	3.72 (0.83)	5.41 (0.62)
8. *Argumentum ad misericordiam*	3.86 (0.53)	5.06 (0.42)
9. Fallacy of declaring a standpoint taboo	2.79 (0.66)	5.14 (0.47)
10. Fallacy of declaring a standpoint sacrosanct	2.68 (0.68)	5.67 (0.40)
11. Fallacy of shifting the burden of proof (non-mixed difference)	2.37 (0.89)	4.51 (0.67)
12. Fallacy of evading the burden of proof (non-mixed difference)		
- by introducing the standpoint as something matter-of-course	3.04 (0.72)	4.68 (0.87)
13. Fallacy of evading the burden of proof (non-mixed difference)		
- by personally guaranteeing the rightness of the standpoint		
- via a promise	3.29 (0.99)	5.18 (0.18)
- via a directive	2.77 (0.75)	5.14 (0.92)
14. Fallacy of evading the burden of proof (non-mixed difference)		
- by immunizing the standpoint against criticism		
via hermetical-essentialistic formulations	2.93 (0.96)	4.76 (0.88)
15. Fallacy of evading the burden of proof (mixed difference)		
- regarding standpoints without presumptive status	2.72 (0.81)	5.68 (0.55)
- regarding standpoints with presumptive status (truth candidate)	3.45 (0.98)	5.68 (0.55)
- regarding standpoints with presumptive status (revisions)	3.48 (1.16)	5.68 (0.55)
16. *Argumentum ad consequentiam*		
- logical variant	3.92 (0.74)	4.39 (0.64)
- pragmatic variant	2.96 (0.70)	5.03 (0.63)
17. *Argumentum ad populum*	2.77 (0.80)	5.88 (0.73)
18. Fallacy of the slippery slope	3.31 (0.78)	5.31 (0.66)
19. Fallacy of false analogy	3.14 (0.70)	4.74 (0.83)
20. *Argumentum ad ignorantiam*	2.56 (0.71)	5.56 (0.56)

1 = very unreasonable
4 = neither unreasonable nor reasonable
7 = very reasonable
(...) = standard deviation

Fig. 5.1 Intersubjective acceptability of the rules for critical discussion

The most important findings of the research project can be found in Fig. 5.1, which contains an overview of the intersubjective acceptability scores of twenty fallacies resulting from violations of the four rules for critical discussion that were included in the research. In order to maintain orderliness in the overview, for each fallacy only the average score on a 7-point scale (and the standard deviation) in the study revolving around that specific fallacy is given.

On the basis of the results reported in Fig. 5.1 it can be concluded that in general ordinary arguers judge the fallacies examined as unreasonable argumentative moves, while the sound argumentative moves with which the fallacies were contrasted were time and time again found to be reasonable to very reasonable.[3] Considering the striking consistency of the results that were obtained, it seems justified to conclude that ordinary arguers consider the fallacies as unreasonable contributions to the discussion. On the basis of the differences in the absolute size of the empirical averages in the results, it can also be concluded that there is a considerable variation in the extent to which the fallacies that were examined are found to be unreasonable.

In drawing conclusions from the overview it may not be forgotten that in all reported empirical studies paradigmatic clear cases were constructed of the fallacies examined. In everyday practice identifying fallacies may be more difficult and in doing so often appeals will have to be made to the context or to general or specific background information and knowledge of specific fallacies and having special interpretation skills may sometimes also come in handy. In addition, despite all the consistency, there is possibly still some room for doubt about the accuracy and stability of the reported estimates. It is therefore needed to consider seriously whether the estimates that have been found are really so reliable that they would legitimize a generalizing conclusion such as "ordinary arguers judge the fallacies that have been examined to be unreasonable argumentative moves and they judge their non-fallacious counterparts in general as reasonable argumentative moves".

Because of the remaining uncertainty, in a number of cases replication studies were carried out—sometimes to check whether certain interpretations are supported, sometimes to exclude alternative explanations and to confirm in this way the internal validity of the research, sometimes to optimize the external validity of the research by carrying out a quantitative study into the motivations and reasons respondents claim to have to base their reasonableness scores on. The results of the original studies and the replication studies were by and large strikingly similar—certainly as far as the *ordinal* ratio was concerned. All in all, it may therefore be assumed that the fallacies that have been examined are usually indeed considered to be unreasonable argumentative moves by ordinary arguers and that argumentative moves which do not violate a discussion rule are found reasonable.[4]

Our theoretically neutral conclusion that the fallacies are generally found to be unreasonable while the sound counterparts are by and large found to be reasonable can be reformulated as follows in pragma-dialectical terms: discussion contributions in which a rule for critical discussion is violated are consistently found to be unreasonable while the contributions in which that is not the case are found to be reasonable. When the conclusion is formulated in these theoretical terms, two questions arise: (1) what type of standards are underlying the judgments of ordinary arguers, i.e. why do they consider a contribution to the discussion unreasonable when a rule for critical discussion has been violated and reasonable when this is not

[3]There is one exception to this general conclusion: ordinary arguers hardly ever see the *reductio ad absurdum* as a type of sound argumentation, just as they hardly ever see its fallacious counterpart, the logical variant of the *argumentum ad consequentiam*, as a fallacy.

[4]In drawing this conclusion the logical variant of the *argumentum ad consequentiam* and the *tu quoque* variant of the *argumentum ad hominem* are not taken into consideration.

the case? (2) to what extent are the rules for critical discussion conventionally valid, i.e. to what extent are the standards that ordinary arguers claim to apply similar to the rules of critical discussion constituting the code of conduct for reasonable argumentative discourse?

A simple and theoretically attractive answer to the first question is: because the fallacious contributions to the discussion are violations of discussion rules that are in a procedural sense instrumental in resolving a difference of opinion on the merits. The conventional validity of the discussion rules however is, unlike their problem-validity, an empirical and not a purely theoretical matter and from an empirical point of view the answer just given is unsatisfactory. We therefore asked our respondents to motivate their judgments of reasonableness in a number of cases, so that we could check whether these ordinary arguers are more or less aware of what goes wrong when a specific fallacy is committed and perhaps even associate themselves with a set of more or less abstract discussion rules similar to the pragma-dialectical rules for critical discussion. However, requesting the research subjects to "briefly indicate why you think the last discussion contribution is reasonable or unreasonable" generally led to a massive non-response. Evidently this lack of response was not due to the respondents' unwillingness to provide an answer but to their incapacity to do so. Even if a respondent occasionally gave a relevant answer on a more or less abstract level from which it could be concluded that some basic insight into the rule concerned might be present, more often than not this answer could not be generalized and applied to similar new cases.

However difficult it may be to generalize the responses they gave, in the majority of the cases examined where a fallacy was committed most of the respondents saw that something was wrong and could put into words on which grounds they called a certain argumentative move deficient. However, they did so in concrete terms immediately connected with the content of the dialogue fragments in which the fallacy concerned was committed and not in abstract and general terms referring to general and perhaps universal discussion rules. In the rare cases when a respondent did appeal to a discussion rule in motivating rejection or acceptance of an argumentative move, the observations concerned seemed to be induced by incidental characteristics of the material that was to be judged and remained rather superficial. So it appears that the qualitative study into the motivations of ordinary arguers' judgment of reasonableness just reported about does not warrant any clear-cut and definitive conclusions regarding the potential conventional validity of the rules for critical discussion.

The question remains in what sense the enormous amount of empirical data acquired in the comprehensive quantitative research carried out in pragma-dialectics provides any indications for the degree of conventional validity of the discussion rules applying to the confrontation stage, the opening stage, the argumentation stage and the concluding stage that have been examined. In order to answer this question, the concept of "effect size" was used. Generally speaking, the effect size indicates how strong the respondents discriminate when it comes to reasonableness or unreasonableness between a fallacy and its non-fallacious counterpart. The larger the effect size, one might say, the stronger the discrimination—and the other way around: the smaller the effect size, the less strongly the respondents discriminate qua reasonableness or unreasonableness between the fallacious and the non-fallacious argumentative moves. It can therefore be maintained that the bigger the effect size is the more the claim to conventional validity is in a relative sense substantiated.

From the median and average values recorded it may be deduced as a general conclusion that the differences in degree of conventional validity between the four discussion rules examined are certainly not spectacular and that, generally speaking, the intersubjective acceptability of the rules that can be observed strongly supports the claim to conventional validity of these rules. The difference between the various rules is only marginal. If one would nevertheless want to draw up an order of ranking in their degree of conventional validity, the result would be that the Burden of Proof Rule (Rule 2) for the opening stage holds the top position, followed by the Freedom Rule (Rule 1) for the confrontation stage and the Argument Scheme Rule (Rule 8) for the argumentation stage.

All in all, the results of the pragma-dialectical research concerning ordinary arguers' standards of reasonableness provide indirect evidence for the conventional validity of some representative parts of the code of conduct for reasonable argumentative discourse. At any rate, to put it negatively, the overview of the perceived unreasonableness of fallacies and the perceived reasonableness of non-fallacies based on this research warrants the conclusion that the results that have been obtained do in no way prevent the rules for critical discussion from gaining conventional validity. After all, the argumentative moves that violate the rules for critical discussion are for the most part rejected, while the argumentative moves that do not violate these rules are generally accepted as reasonable argumentative moves. Since all the data obtained in this comprehensive empirical research project indicate that the standards that ordinary arguers use in judging the reasonableness of argumentative moves correspond to a rather large degree with the pragma-dialectical standards for critical discussion, the final conclusion seems justified that, if properly introduced and explained, the code of conduct for reasonable argumentative discourse has a realistic potential for acquiring conventional validity among ordinary arguers.

5.5 Hidden Fallaciousness in Argumentative Discourse

After examining the perceived reasonableness of argumentative discourse experimentally, its acceptability for ordinary arguers has become our new venue for empirical research. This "effectiveness through reasonableness" research is now topical due to the introduction of the notion of strategic manoeuvring, which will be discussed in Chap. 7 of this volume. In light of the just reported finding that argumentative moves which are fallacious from a theoretical perspective are also judged unreasonable by ordinary arguers, it might seem remarkable that when such deficient argumentative moves occur in real-life argumentative discourse many times fallacies appear not to be noticed by the discussants. When the reasonableness of clear cases of the fallacies is rated in an experimental situation, ordinary arguers consistently judge these fallacies to be unreasonable argumentative moves. In actual argumentative discourse however, fallacies remain in a great many cases undetected. Such striking discrepancies need to be explained and the "hidden fallaciousness" project is aimed at doing so. The point of departure consists of three starting points based on a combination of the pragma-dialectical view on the relationship between argumentation and effectiveness as convincingness (van Eemeren and Grootendorst 1984: 47–51) and the pertinent data from the empirical research concerning the reasonableness judgements of ordinary arguers (van Eemeren et al. 2009).

If ordinary arguers were not aware of any standards of reasonableness, there would be no rationale for their aiming for effectiveness in argumentative discourse by means of reasonable argumentative moves. As the results of the empirical research discussed in the previous section of this chapter indicate, ordinary arguers' standards of reasonableness generally strongly agree with the standards of reasonableness incorporated in the rules for critical discussion. This means that, in principle, they may be supposed to know which contributions to the process of resolving a difference of opinion are to be considered reasonable and which contributions are to be considered unreasonable. The first starting point of the research concerning hidden fallaciousness therefore is that ordinary arguers will be aware that their argumentative moves need to comply with commitments equal to the dialectical commitments expressed in the code of conduct for reasonable argumentative discourse.

It is only possible for ordinary arguers to connect their dialectical commitments with their aiming for effectiveness vis-à-vis the other party if they assume that the other party shares their standards of reasonableness. If they did not start from this assumption, it would be pointless for them to make an appeal to the other party's standards of reasonableness by putting forward argumentation that they consider suitable to justifying the standpoint at issue. The second starting point of the experimental research concerning hidden fallaciousness therefore is that ordinary arguers taking part in argumentative discourse will assume that, in principle, the other party in the discussion has the same kind of (dialectical) commitments as they have.

If ordinary arguers did not expect the prevailing standards of reasonableness to be of consequence for the outcome of the discourse when they are making argumentative moves in argumentative discourse, their argumentative efforts would be pointless. Giving this prescriptive meaning to reasonableness in argumentative discourse and expecting the other participants to do the same, allows the arguers to interpret the connection between reasonableness and effectiveness in such a way that reasonableness may in principle lead to effectiveness (even if other factors may also play a part and can interfere). Conversely, if reasonableness is lacking, they are likely to expect effectiveness to suffer. The third starting point of the hidden fallaciousness research therefore is that ordinary arguers will prefer those contributions to the discussion that comply with supposedly shared standards of reasonableness to be regarded as reasonable and to be accepted and those contributions that do not comply with these standards to be regarded as unreasonable and not to be accepted.

Against the background of these three starting points, which are all confirmed by the results of empirical research, it makes sense to examine the relationship between reasonableness and effectiveness empirically, covering all stages of the process of resolving a difference of opinion on the merits in the examination. In carrying out this empirical research, "effectiveness" is in pragma-dialectics defined as achieving acceptance of an argumentative move, which is the inherent interactional effect conventionally aimed for in performing the communicative act concerned (van Eemeren and Grootendorst 1984: 24–29). In order to serve its purposes optimally, the pragma-dialectical effectiveness research concentrates on the pursuit of intended and externalizable effects of the argumentative moves that are made on the state of the addressee's dialectical commitment store, i.e. on the addressee's positions in the discussion that are immediately relevant to the resolution process.[5] This effectiveness research focuses on effects which are achieved by reasonable means, which are based on an adequate understanding of the functional rationale of the argumentative moves that are made and which depend on rational considerations on the part of the addressee.[6] In this research, reasonableness is viewed as a necessary condition for "convincingness", i.e. the rational version of persuasiveness (van Eemeren and Grootendorst 1984: 48).

The experimental research project concerning hidden fallaciousness is devoted to the question of how it can be explained that fallacies that ordinary arguer consistently consider fallacious in a laboratory situation created in experimental research remain so often undetected in actual argumentative discourse. One of the fallacies concentrated on in this project so far is the violation of the Freedom Rule (Rule 1) known as the *abusive argumentum ad hominem* (van Eemeren et al. 2012b). The fallacy of an abusive *argumentum ad hominem* boils down to an attempt to eliminate the other party as a serious discussion partner by carrying out a personal attack that involves a shift of focus from an argumentative move to certain characteristics of the speaker or writer. As a rule such a shift is unreasonable. It can be reasonable however if the personal attack is made to criticize the other party's incorrect use of authority argumentation, i.e. to counter the use of the fallacy known as an *argumentum ad verecundiam*. In case a protagonist wrongfully presents himself or herself as an expert in a certain field or claims to be trustworthy when in fact he or she is not, it is reasonable to attack this protagonist for it.

The hypothesis investigated is that an *abusive argumentum ad hominem* may easily go undetected when the argumentative move concerned takes on a reasonable appearance because it mimics a legitimate critical reaction to authority argumentation. In the special circumstances when this might be the case it may not always be immediately clear whether the personal attack that is made must be seen as a

[5]This critically-inspired effectiveness research is the pragma-dialectical alternative to non-dialectical persuasion research.

[6]See van Eemeren and Grootendorst (1984: 63–74) and van Eemeren (2010: 36–39).

reasonable critique or as a fallacious *ad hominem* move. In two experiments the hypothesis has been systematically tested that abusive *ad hominem* attacks will be seen as substantially less unreasonable when they are presented as if they are critical reactions to authority argumentation in which the person attacked is (wrongfully) parading as an authority. In both experiments the hypothesis was confirmed. In the original test as well as in the replication carried out to be able to generalize the results, straightforward abusive *ad hominem* attacks were consistently rejected as unreasonable argumentative moves while legitimate personal attacks were invariably considered reasonable. The "disguised" abusive attacks presented as responses to an abuse of authority however were judged as substantially less unreasonable than the overtly fallacious attacks. To follow up, experimental empirical research has been carried out (and will be carried out in the future) regarding disguised uses of other fallacies, such as the *argumentum ad baculum* presented as a reasonable warning (van Eemeren et al. 2015).

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