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Wierda, R.M.

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In a direct-to-consumer (DTC) medical advertisement an advertiser aims to convince consumers to use a medical product, such as a dietary supplement, a freely obtainable pain killer or a prescription drug. Such advertisements sometimes feature endorsers who claim to have experienced the desirable effects of a product and advise others to try the product as well. This dissertation concerns the strategic manner in which advertisers can use this kind of “experience-based authority argumentation” in American printed DTC medical advertisements.

Using the pragma-dialectical argumentation theory as a theoretical framework, the first part of the dissertation deals with the ways in which advertisers can anticipate the critical questions that a consumer might ask about such an experience-based authority argument. The second part concerns two experiments that were carried out to investigate whether readers of DTC medical advertisements differentiate between reasonable and unreasonable ways of anticipating such criticism.
EXPERIENCE-BASED AUTHORITY ARGUMENTATION IN DIRECT-TO-CONSUMER MEDICAL ADVERTISEMENTS

An analytical and experimental study concerning the strategic anticipation of critical questions
Wierda, R.M.

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EXPERIENCE-BASED AUTHORITY ARGUMENTATION
IN DIRECT-TO-CONSUMER MEDICAL ADVERTISEMENTS

An analytical and experimental study concerning
the strategic anticipation of critical questions

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aan de Universiteit van Amsterdam
op gezag van de Rector Magnificus
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ten overstaan van een door het College voor Promoties ingestelde commissie,
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Renske Marij Wierda
geboren te Amsterdam
Promotor: Prof. dr. F.H. van Eemeren
Copromotor: Dr. A.F. Snoeck Henkemans

Overige leden: Prof. dr. T. van Haaften
Prof. dr. J.A.L. Hoeken
Dr. H.L.M. Meuffels

Faculteit der Geesteswetenschappen
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Chapter 1
Introduction

1.1 Object of Research

The first and foremost purpose of an advertisement is to persuade: to induce consumers to use a particular product. On a daily basis, consumers are exposed to large numbers of such persuasion attempts, aimed at making them buy products ranging from soft drinks to washing machines and from coffee to prescription drugs. While advertisers do their best to persuade consumers, it is up to those consumers to determine whether or not they find an advertisement convincing. For this reason an advertisement can be seen as (part of) an argumentative discussion, the advertiser being the protagonist of the standpoint that the consumer should buy their product, and the consumer being the antagonist, doubting the acceptability of the advertiser's standpoint and judging their argumentation.

This dissertation focuses on the argumentation occurring in one particular type of advertisements: American direct-to-consumer print medical advertisements – persuasive texts intended to sell medical products such as prescription drugs, pain relievers and vitamins to the readers of written media like newspapers and magazines. The term “direct-to-consumer” (DTC) indicates that these ads are aimed at consumers, not at doctors or other medical professionals. In most parts of the world, these advertisements are only allowed for medical products that are freely available, such as over-the-counter drugs. In the US and New Zealand, however, direct-to-consumer advertisements are also allowed for prescription-only drugs, so that a consumer can read an ad for a specific prescription drug and then ask his or her doctor to prescribe that particular drug to him or her. An example of a US DTC medical advertisement for a prescription-only drug is represented in Figure 1.1 below.
Figure 1.1. Direct-to-consumer advertisement for the prescription drug Prolia, featuring an endorsement by the actress Blythe Danner. Continued on the next two pages.
For women with postmenopausal osteoporosis at high risk for fracture: there's Prolia®.

Prolia® 2 shots a year proven to help strengthen bones.

Prolia® (denosumab) is different. It's a shot given 2 times a year in your doctor's office.

Prolia® is proven to:
- Significantly reduce fractures of the spine, hip, and other bones
- Help increase bone density

Is Prolia® right for you? Ask your doctor today.

By Prescription Only.

Before taking Prolia®, tell your doctor if you:
- Are taking a medicine called XGEVA® (denosumab). XGEVA® contains the same medicine as Prolia®
- Have low blood calcium
- Cannot take daily calcium and vitamin D
- Had parathyroid or thyroid surgery (glands located in your neck)
- Have been told you have trouble absorbing minerals in your stomach or intestines (malabsorption syndrome)
- Have kidney problems or are on kidney dialysis
- Plan to have dental surgery or teeth removed
- Are pregnant or plan to become pregnant
- Are breast-feeding or plan to breast-feed

What are the possible side effects of Prolia®?
It is not known if the use of Prolia® over a long period of time may cause slow healing of broken bones or unusual fractures. The most common side effects of Prolia® are back pain, pain in your arms and legs, high cholesterol, muscle pain, and bladder infection.

These are not all the possible side effects of Prolia®.
For more information, ask your doctor or pharmacist. Call your doctor for medical advice about side effects.

You are encouraged to report negative side effects of prescription drugs to the FDA. Visit www.fda.gov/medwatch, or call 1-800-FDA-1088.
Please see Brief Summary of Medication Guide on the next page.

Ask your doctor about your bone strength and if Prolia® is right for you.
Chapter 1

**Prolica**

**BRIEF SUMMARY OF MEDICATION GUIDE**

Read the Medication Guide that comes with Prolica before you start taking it and each time you get a refill. There may be new information. The Medication Guide does not take the place of talking with your doctor about your medical condition or treatment. Talk to your doctor if you have any questions about Prolica.

What is the most important information I should know about Prolica? If you receive Prolica, you should not receive XGEVA. Prolica contains the same medicine as Xgeva (denosumab).

Prolica can cause serious side effects including:

1. Low calcium levels in your blood (hypocalcemia).
   - Prolia may lower the calcium levels in your blood. If you have low blood calcium before you start receiving Prolia, it may get worse during treatment. Your low blood calcium must be treated before you receive Prolia. Most people with low calcium levels do not have symptoms, but some people may have symptoms. Call your doctor right away if you have symptoms of low blood calcium such as:
     - Spasms, twitches, or cramps in your muscles
     - Numbness or tingling in your fingers, toes, or around your mouth
     - Your doctor may prescribe calcium and vitamin D to help prevent low calcium levels in your blood while you take Prolia. Take calcium and vitamin D as your doctor tells you to.

2. Serious infections.
   - Serious infections in your skin, lower stomach area (abdomen), bladder, or ear may happen if you take Prolia. Inflammation of the inner lining of the heart (endocarditis) due to an infection also may happen more often in people who take Prolia. You may need to go to the hospital for treatment if you develop an infection.
   - Prolia is a medicine that may affect your immune system. People who have weakened immune systems or medicines that affect the immune system may have an increased risk for developing serious infections.
   - Call your doctor right away if you have any of the following symptoms of infection:
     - Fever or chills
     - Skin that looks red or swollen and is hot or tender to touch
     - Severe abdominal pain
     - Frequent or urgent need to urinate or burning feeling when you urinate

3. Skin problems.
   - Skin problems such as inflammation of your skin (dermatitis), rash, and eczema may happen if you take Prolia. Call your doctor if you have any of the following symptoms of skin problems that do not go away or get worse:
     - Redness
     - Itching
     - Small bumps or patches (rash)

4. Severe jaw bone problems (osteonecrosis).
   - Severe jaw bone problems may happen when you take Prolia. Your doctor should examine your mouth before you start Prolia. Your doctor may tell you to see your dentist before you start Prolia. It is important for you to practice good mouth care during treatment with Prolia.
   - Call your doctor right away if you have any of these side effects.

   **What is Prolia?**
   - Prolia is a prescription medicine used to treat osteoporosis (thinning and weakening of bone) in women after menopause ("change of life") who:
     - have an increased risk for fractures (broken bones).
     - cannot use another osteoporosis medicine or other osteoporosis medicines did not work well.
   - Prolia is not recommended for use in children.
   - **Who should not receive Prolia?**
     - Do not take Prolia if you have been told by your doctor that your blood calcium level is too low.
   - **What should I tell my doctor before receiving Prolia?**
   - Before taking Prolia, tell your doctor if you:
     - Are taking a medicine called Xgeva (denosumab).
     - You may need to go to the hospital for treatment if you develop an infection.
     - Prolia is a medicine that may affect your immune system. People who have weakened immune systems or medicines that affect the immune system may have an increased risk for developing serious infections.
   - **Tell your doctor about all the medicines you take,** including prescription and nonprescription drugs, vitamins, and herbal supplements.
   - Know the medicines you take. Keep a list of medicines with you to show to your doctor or pharmacist when you get a new medicine.
   - **How will I receive Prolia?**
     - Prolia is an injection that will be given to you by a healthcare professional. Prolia is injected under your skin (subcutaneous).
   - You will receive Prolia 1 time every 6 months.
   - You should take calcium and vitamin D as your doctor tells you to while you receive Prolia.
   - If you miss a dose of Prolia, you should receive your injection as soon as you can.
   - Take good care of your teeth and gums while you receive Prolia. Brush and floss your teeth regularly.
   - Tell your dentist that you are receiving Prolia before you have dental work.
   - **What are the possible side effects of Prolia?**
     - **See "What is the most important information I should know about Prolia?"**
     - **Long-term effects on bone:** It is not known if the use of Prolia over a long period of time may cause slow healing of broken bones or unusual fractures.

   The common side effects of Prolia in women who are being treated for osteoporosis after menopause are:
   - back pain
   - pain in your arms and legs
   - high cholesterol
   - muscle pain
   - bladder infection
   - Tell your doctor if you have any side effect that bothers you or that does not go away.
   - These are not all the possible side effects of Prolia. For more information, ask your doctor or pharmacist.
   - Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

   **How should I store Prolia?** If I need to pick it up from a pharmacy:
   - Keep Prolia in a refrigerator at 36°F to 46°F (2°C to 8°C) in the original carton.
   - Do not freeze Prolia.
   - When you remove Prolia from the refrigerator, Prolia must be kept at room temperature [up to 77°F (25°C)] in the original carton and must be used within 14 days.
   - Do not keep Prolia at temperatures above 77°F (25°C). Warm temperatures will affect how Prolia works.
   - Do not shake Prolia.
   - Keep Prolia in the original carton to protect from light.
   - Keep Prolia and all medicines out of reach of children.

   **General information about Prolia**
   - Do not give Prolia to other people even if they have the same symptoms that you have. It may harm them.

   The Medication Guide summarizes the most important information about Prolia. If you would like more information, talk with your doctor. You can ask your doctor or pharmacist for information about Prolia that is written for health professionals. For more information, go to www.Prolia.com or call Amgen at 1-800-772-6436.

   **What are the ingredients in Prolia?**
   - Active ingredient: denosumab
   - Inactive ingredients: sorbitol, acetate, polysorbate 20 (preserved syringe only), Water for Injection (USP), and sodium hydroxide

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When interpreting a DTC medical advertisement as a reasonable persuasion attempt, we presume that an advertiser directs his or her argumentation at a hypothetical consumer who is assumed to critically evaluate the soundness of the advertiser’s arguments and to base the decision on whether or not to buy the advertised product on the outcome of this scrutiny. But advertisers do not only wish to be reasonable: they also, and perhaps even primarily, wish to persuade consumers to buy a product. Rather than just having a reasonable discussion with a consumer, an advertiser wants the discussion to turn out in his or her favor. The tension between pursuing “reasonableness” and “effectiveness” is an important feature of all argumentative discourse. In order to escape from this “argumentative predicament” (van Eemeren, 2010, p. 40), advertisers should attempt to be as effective as possible within the bounds of reasonableness: they have to adhere to the rules of critical discussion, while making the most opportune choices in the argumentation that they present.

A particular kind of argumentation that typically occurs in DTC medical ads is experience-based authority argumentation. In such arguments, an individual who is claimed to have personal experience with the advertised medical product is presented as an authority on the effectiveness of the product, with the (implicit) suggestion that the reader should use the medical product because this person endorses it. If a reader is a critical consumer, (s)he is faced with the following problem: how should (s)he decide whether or not that argument is acceptable in the context of a DTC medical advertisement? The solution to this problem lies in the conditions that determine whether experience-based authority argumentation in DTC medical advertisements is reasonable: the “soundness conditions” for this type of argument in this context. A related problem arises when the focus is not only on the reader’s perspective, but also on the advertiser’s. How can advertisers anticipate a reader’s critical reaction – how can they take into account the criticism that a reader might raise regarding the use of an experience-based authority argument in a DTC medical advertisement, and adapt their argumentation accordingly?

In this chapter, I first introduce the theoretical framework that I will apply to address these problems. Next, I present the aims of my dissertation and the research questions I am going to answer in order to realize these aims. Finally, in discussing the organization of the study, I explain how each chapter of this dissertation contributes to answering my research questions.
1.2 Approach

The theoretical framework that I will use to study experience-based authority argumentation in DTC medical advertisements is the pragma-dialectical theory of argumentation, developed by van Eemeren and others at the University of Amsterdam (van Eemeren, 2010; van Eemeren & Grootendorst, 1984; 2004; van Eemeren & Houtlosser, 2002). The theory revolves around the concept of an ideal model of critical discussion, which regulates the way in which the acceptability of a standpoint can be put to the test.

When two people do not agree about a standpoint, a difference of opinion comes about. In the discussion that follows, the protagonist defends a standpoint, while the antagonist doubts it. The discussants exchange arguments that support or undermine the standpoint. The goal of such an argumentative exchange is to resolve the difference of opinion on the merits.

A critical discussion progresses through four different “discussion stages”: the confrontation stage, in which the difference of opinion is externalized; the opening stage, in which the procedural and material starting points of the discussion are determined; the argumentation stage, in which arguments and criticisms are exchanged to support or attack the standpoint at issue in the difference of opinion; and finally the concluding stage, in which it is determined whether the protagonist should withdraw his or her standpoint or the antagonist should withdraw his or her doubt.

To support a standpoint, a protagonist can advance argumentation based on a particular argument scheme. Three main types of argument schemes are distinguished in the pragma-dialectical argumentation theory, differing in the way that they connect an argument to a standpoint: causal argumentation, analogy argumentation, and symptomatic argumentation (van Eemeren & Grootendorst, 1992). Authority argumentation, the focus of this dissertation, is a subtype of the symptomatic argument scheme: the fact that a particular person has stated something is a characteristic, or a symptom, of that statement’s acceptability. Each (sub)type of argument scheme comes with its own set of critical questions that should be satisfactorily answerable in order for the argument to be acceptable.

The pragma-dialectical argumentation theory includes fifteen dialectical discussion rules that are instrumental to resolving a difference of opinion on the merits, as well as a “code of conduct” consisting of ten commandments that prohibit discussion moves that hinder the resolution process. Moves that hinder the resolution of a difference of opinion on the merits are called fallacies or fallacious moves.

As was mentioned in the previous section, in their attempt to resolve a difference of opinion discussants are not only trying to be reasonable but also aim to be effective in convincing the other discussion party: they try to be as rhetorically effective as possible while still adhering to the dialectical rules of reasonableness. This continual effort is reflected in the pragma-dialectical concept of strategic maneuvering: an arguer is always maneuvering between his or her dialectical goal of being reasonable and his or her rhetorical goal of being effective by (1) making the most opportune selection from the topical potential of argumentative moves available at a certain point in the discussion; (2) adapting as much as possible to the demand of the intended audience; and (3) using the most opportune presentational devices (van Eemeren, 2010, pp. 93–96). In the process of
strategic maneuvering, an argumentative move is said to “derail” when a discussant loses sight of the dialectical goal of reasonableness and violates one or more discussion rules, thereby committing a fallacy.

Strategic maneuvering always takes places within a particular “communicative activity type”: a conventionalized practice, aimed at fulfilling the institutional needs prevailing in a certain domain of communicative activity (van Eemeren 2010, p. 139). A direct-to-consumer medical advertisement is a specimen of such an activity type. If a communicative activity type is (at least partly) argumentative, it can be considered a useful endeavor to characterize it as an argumentative activity type, in order to identify the constraints that are imposed by a particular institutional context on the possibilities for strategic maneuvering (van Eemeren, 2010, p. 145). In focusing on the argumentative dimension of a communicative activity type, an argumentative characterization can be provided in terms of the real-life counterparts of the four stages of a critical discussion that are the focal points in a resolution process: the initial situation, the material and procedural starting points, the argumentative means and criticisms, and the outcome of an argumentative exchange (van Eemeren, 2010, p. 146).

The argumentative dimension of DTC medical advertisements has only recently become the object of attention in the field of communication studies (see, for instance, Mohammed & Schulz, 2012; Rubinelli, Nakamoto & Schulz, 2007; Walton, 2010). So far, DTC medical advertisements have not yet been approached in terms of the institutional features that pose opportunities as well as constraints for an advertisers’ possibilities for strategic maneuvering. In order to integrate the concept of strategic maneuvering into the study of these advertisements, this dissertation interprets DTC medical advertisements as an argumentative activity type, which makes it possible to explain how an advertiser’s argumentation is shaped by the specific institutional characteristics of these advertisements.

In approaching DTC medical advertisements as an argumentative activity type, it is important to note that in this case one side of the critical discussion remains implicit. While in other formats, such as a debate, both discussants are present, in advertisements we only see the arguments of one discussant: the advertiser. The antagonist’s role is only represented by the critical reactions that the advertiser anticipates consumers to have: the advertiser tries to imagine how a consumer may respond to an advertisement, and tries to take this consumer’s response into account. So even though only one party is arguing, we can still reconstruct an advertisement as a critical discussion, if we consider the antagonist to be the consumer that the advertiser is implicitly addressing.

1.3 Aims and Research Questions

In the last decade, pragma-dialectical research has concentrated on the argumentation occurring in various conventionalized argumentative activity types in four different domains of communication: the political, the legal, the academic and the medical domain. In the medical domain of communication, Labrie as well as Pilgram have focused on argumentation in general practice consultation (Labrie, 2014; Labrie & Schulz, 2015; Pilgram, 2014; 2015), van Poppel has focused on pragmatic argumentation in health brochures (van Poppel, 2013; 2014), and Snoeck Henkemans has focused on the different
kinds of institutional constraints in medical communication (Snoeck Henkemans & Mohammed, 2014; Snoeck Henkemans & Wagemans, 2015). My current investigation into experience-based authority argumentation in DTC medical advertisements aims to contribute to this ongoing research into conventionalized argumentative practices in the medical domain by providing an argumentative characterization of the communicative activity type of DTC medical advertisements.

Furthermore, by specifying the critical questions for experience-based authority argumentation in these advertisements and discussing how advertisers can strategically maneuver with the anticipation of these critical questions, I intend to contribute to the new research development in pragma-dialectics that deals with prototypical argumentative patterns occurring in particular communicative activity types (van Eemeren & Garssen, 2014a; 2014b; 2015; van Eemeren, Garssen, Krabbe, Snoeck Henkemans, Verheij & Wagemans, 2014). Such patterns consist of the “specific kinds of critical reactions (that) may be expected to be raised (…) and are therefore likely to be anticipated in the argumentative moves that are made” (van Eemeren & Garssen, 2014b, p. 7).

In addition, my dissertation aims to contribute to the ongoing empirical research into the acceptability of the pragma-dialectical rules for critical discussion to ordinary arguers, conducted by van Eemeren, Garssen and Meuffels (2009). These authors set out to determine “to what extent the norms for reasonableness incorporated in the pragma-dialectical rules for critical discussion are intersubjectively acceptable to ordinary arguers who have not had any special training in analyzing and evaluating argumentative discourse” (2009, p. v). Through investigating whether ordinary language users evaluate direct-to-consumer medical advertisements with criteria that are more or less in line with soundness conditions that can be specified on the basis of theoretical considerations, I aim to follow on from the extensive empirical research carried out by van Eemeren, Garssen and Meuffels.

Integrating the aforementioned goals, in my investigation into the anticipation of critical questions concerning experience-based authority argumentation in DTC medical advertisements I strive to achieve both an analytical and an empirical aim:

1) To provide an account of an advertiser’s strategic maneuvering in direct-to-consumer medical advertisements in anticipating critical questions concerning experience-based authority argumentation

and

2) to determine to what extent the readers of these advertisements differentiate between sound and derailed instances of such strategic maneuvers.

To fulfill the first, analytical aim, three issues need to be investigated. The first issue concerns DTC medical advertisements: in order to study the effect of the constraints that this communicative activity type poses on an advertiser’s strategic maneuvering, we first have to know what these constraints actually are. This can be realized by providing an argumentative characterization of the communicative activity type of DTC medical
advertisements, in line with the studies into conventionalized argumentative practices that were discussed at the beginning of the current section.

The second issue pertains to the critical questions concerning experience-based authority argumentation: before we can determine how these critical questions might be anticipated, we have to determine what the relevant critical questions are for this type of argument in this context. Building on earlier research regarding symptomatic argumentation in general and authority argumentation in particular (van Eemeren, 2010; van Eemeren & Grootendorst, 1992; Garssen, 1997; Walton, 2007) and specifying those insights according to the characteristics of direct-to-consumer medical advertisements, a list of critical questions can be developed and a prototypical argumentative pattern can be sketched for experience-based authority argumentation in this communicative activity type.

The third issue concerns the idea of anticipating critical questions: the concept of anticipating criticism needs to be further implemented in pragma-dialectical terms before I will be able to explain how advertisers can strategically maneuver with the anticipation of particular critical questions. This can be done by specifically interpreting the anticipation of critical questions in terms of strategic maneuvering, by relating this concept to the different choices that advertisers can make in their strategic maneuvering in DTC medical advertisements.

These three issues need to be resolved in order to realize the first, analytical aim of the dissertation. They are reflected in the following three research questions connected to the analytical aim:

1. What are the extrinsic constraints imposed by the argumentative activity type of direct-to-consumer medical advertisements?
2. What are the relevant critical questions for experience-based authority argumentation in direct-to-consumer medical advertisements?
3. What kinds of strategic maneuvers can be used by advertisers to anticipate critical questions?

Unlike the first aim, my second general aim – to determine to what extent the readers of DTC medical advertisements differentiate between sound and derailed instances of strategic maneuvers that anticipate critical questions regarding the use of experience-based authority argumentation – cannot be realized by means of analytical research, because it deals with the way people actually judge DTC medical advertisements in the real world. An advertiser can anticipate a critical question in both sound and fallacious ways: the advertiser can provide a satisfactory answer to a critical question, but (s)he can also anticipate a critical question in such a way that it becomes difficult for a reader to determine whether or not the question can be satisfactorily answered. The concern, now, is whether ordinary arguers can tell apart sound anticipation maneuvers from derailed ones.

To realize the second aim of my dissertation, in line with the empirical research conducted by van Eemeren, Garssen and Meuffels (2009) that was discussed at the beginning of the current section, I will empirically investigate whether in practice people agree that there is something wrong with anticipation maneuvers concerning authority arguments in DTC medical ads that are considered to be fallacious from a theoretical
perspective, or whether they regard fallacious maneuvers to be equally reasonable as sound maneuvers in this context. This empirical research is not meant to provide a confirmation of the theoretically established soundness conditions tied to my first general aim; rather, I aim to establish what the connection is between my analytical results and argumentative reality.

Once again, there is more than one issue that needs to be dealt with in order to realize the second general aim, which revolves around the concept of differentiating between sound and derailed strategic maneuvers that anticipate particular critical questions. Before we can investigate whether ordinary arguers recognize the difference between sound and fallacious anticipation maneuvers concerning authority argumentation, we have to answer a more basic question: do these ordinary arguers actually acknowledge (an approximation of) the critical questions that these maneuvers are intended to anticipate? If we do not know whether the critical questions that are established on theoretical grounds approximate evaluation criteria that ordinary arguers use for judging authority arguments in DTC medical advertisements, then it will be very hard, if not impossible, to investigate how these ordinary arguers judge strategic maneuvers that are aimed at anticipating these critical questions. A first experimental study, therefore, has to investigate whether or not my analytically established critical questions are in line with criteria that are used by readers of DTC medical advertisements in their evaluation of experience-based authority argumentation in these ads. A second experimental study can then focus on anticipation maneuvers concerning only those critical questions that indeed play a role for ordinary language users.

That second experiment will deal with the final issue that needs to be investigated in order to realize the empirical aim of the dissertation: the influence of derailed anticipation maneuvers on ordinary language user's judgments of experience-based authority arguments in DTC medical advertisements. If readers of these advertisements indeed make use of criteria for judging such appeals to authority that are more or less in line with some of the critical questions that can be established on theoretical grounds, then the issue remains whether their judgments differ when an advertiser uses a fallacious anticipation maneuver concerning an answer to a critical question, compared to when an advertiser straightforwardly provides a satisfactory answer to that critical question. Conforming to these two steps – first determining whether critical questions actually play a role for readers of medical advertisements, then determining how the judgments based on these critical questions are influenced by anticipation maneuvers – two research questions can be formulated in line with the empirical aim of the dissertation:

4 Are the analytically established soundness conditions concerning experience-based authority argumentation in direct-to-consumer medical advertisements in line with evaluation criteria that are applied by readers of these advertisements?
5 To what extent do readers of direct-to-consumer medical advertisements differentiate between sound and derailed strategic maneuvers that anticipate critical questions concerning the use of experience-based authority argumentation?
Figure 1.2 presents a schematic overview of the aims and research questions of this dissertation.

**Aims**

1) To provide an account of an advertiser’s strategic maneuvering in direct-to-consumer medical advertisements in anticipating critical questions concerning experience-based authority argumentation, and 2) to determine to what extent the readers of these advertisements differentiate between sound and derailed instances of such strategic maneuvers.

<table>
<thead>
<tr>
<th>1) Analytical</th>
<th>2) Empirical</th>
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**Research Question 1**

What are the extrinsic constraints imposed by the argumentative activity type of direct-to-consumer medical advertisements? (answered in Chapter 2)

**Research Question 2**

What are the relevant critical questions for experience-based authority argumentation in direct-to-consumer medical advertisements? (answered in Chapter 3)

**Research Question 3**

What kinds of strategic maneuvers can be used by advertisers to anticipate critical questions? (answered in Chapter 4)

**Research Question 4**

Are the analytically established soundness conditions concerning experience-based authority argumentation in direct-to-consumer medical advertisements in line with evaluation criteria that are applied by readers of these advertisements? (answered in Chapter 5)

**Research Question 5**

To what extent do readers of direct-to-consumer medical advertisements differentiate between sound and derailed strategic maneuvers that anticipate critical questions concerning the use of experience-based authority argumentation? (answered in Chapter 6)
1.4 Organization of the Study

To do justice to the two aims of the dissertation, the anticipation of critical questions concerning experience-based authority argumentation will be studied both analytically and empirically. The first, analytical part of the dissertation is concerned with the argumentative characterization of the communicative activity type of direct-to-consumer medical advertisements, the specification of the soundness conditions for experience-based authority argumentation in these advertisements and the discussion of strategic maneuvers aimed at anticipating critical questions. The second, empirical part will put these analytical findings to the test, by means of two experiments in which respondents will be asked how reasonable and effective they perceive particular advertisements to be. By complementing the analytical part of the dissertation with an empirical part, it can be determined whether the analytically established soundness conditions for experience-based authority argumentation in direct-to-consumer advertisements possess intersubjective validity: whether they are shared among ordinary language users (see van Eemeren, Garssen, & Meuffels, 2009, pp. 25-28).

**Part I: An Analytical Study concerning Experience-based Authority Argumentation in Direct-to-Consumer Medical Advertisements**

The analytical part of the dissertation consists of Chapters 2, 3, and 4. As indicated in Figure 1.2, three research questions are connected to the analytical aim of the dissertation. Chapter 2 will deal with research question 1 (the extrinsic constraints imposed by the argumentative activity type of direct-to-consumer medical advertisements), Chapter 3 will answer research question 2 (the relevant critical questions for experience-based authority argumentation in direct-to-consumer medical advertisements) and Chapter 4 will address research question 3 (strategic maneuvering with the anticipation of critical questions).

That particular order – first the argumentative activity type, then the soundness conditions and finally the anticipation of critical questions – is motivated by the pragma-dialectical idea that the specific soundness conditions of a certain strategic maneuver are always dependent on the argumentative activity type, such as a DTC medical advertisement, in which the maneuver takes place: “specific soundness conditions indicate how general soundness conditions need to be interpreted, amended or supplemented in the macro-context of a specific communicative activity type” (van Eemeren, 2010, p. 204). Whether someone can be considered an authority on the subject at issue is different in the activity type of medical advertisements than it is, for instance, in the activity type of a lawsuit. Consequently, the specific institutional conventions and constraints of DTC medical advertisements, such as the applicable laws and advertising codes, need to first be taken into account in order to be able to specify the soundness conditions that are relevant to experience-based authority arguments in this institutional context, and to subsequently investigate how these soundness conditions can be anticipated.
Part II: Two Experimental Studies concerning the Perceived Reasonableness and Effectiveness of Experience-based Authority Argumentation in Direct-to-Consumer Medical Advertisements

In the second, empirical part of the dissertation, consisting of Chapters 5 and 6, experimental research will be conducted in order to realize the empirical aim of the dissertation: to determine to what extent the readers of these advertisements differentiate between sound and derailed instances of strategic maneuvers that anticipate critical questions concerning the use of experience-based authority argumentation. To realize that aim, the first step that needs to be taken is to investigate whether the soundness conditions established in Part I are in line with evaluation criteria that are used by ordinary readers of DTC medical ads (research question 4). Chapter 5 deals with this research question, and concerns an experiment with clear-cut cases of satisfactory and unsatisfactory answers to critical questions. Chapter 6 subsequently addresses research question 5 – concerning readers differentiating between sound and derailed anticipation maneuvers regarding experience-based authority arguments – by presenting the results of a second experiment with two kinds of strategic maneuvers that are aimed at anticipating critical questions.
An Analytical Study concerning Experience-Based Authority Argumentation in Direct-to-Consumer Medical Advertisements
The Communicative Activity Type of Direct-to-Consumer Medical Advertisements

2.1 Introduction

In direct-to-consumer (DTC) medical advertisements, manufacturers aim to convince consumers to use a medical product, such as a prescription drug, a pain killer or a dietary product. The expression “direct-to-consumer advertising” is used for a type of advertising that is aimed at the potential customer who will use the product. In the case of medical products, that means that (potential) patients are addressed, instead of doctors or pharmacies. Within the medical context the term “direct-to-consumer” is commonly used in relation to prescription drug advertising, although it also applies to advertisements for medical products that are freely available, such as over-the-counter drugs. When I employ the concept of direct-to-consumer medical advertisements in this dissertation, I refer to American print advertisements for either prescription drugs or freely obtainable medical products, that are aimed at the potential users of these products and appear in print media such as newspapers and magazines.\(^1\)

Such a definition excludes, for instance, televised and web-based medical advertisements. Although these types of ads for medical products are just as wide-spread a phenomenon as printed medical ads in the US, I will not analyze them in this dissertation. Due to the multimodality of televised and web-based advertising such ads contain a lot of elements that could contribute to the effectiveness of the ads, but that cannot easily be reconstructed argumentatively in an unambiguous manner. Not only text and images, but also sound and movement characteristically play an important role in an advertiser’s attempt to persuade a consumer via the TV or the Internet. The current research project will be restricted to unimodal argumentation in print advertisements as a first step; the multimodal argumentation in other types of medical ads is a consecutive step that can be taken in follow-up research.\(^2\)

Furthermore, in the current research project, I focus only on print DTC medical

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1 I exclusively study American DTC medical advertisements in this dissertation. As a result, my discussion of the characteristics of these advertisements and the legal rules and guidelines governing them only concerns the situation in the United States.

2 The multimodality of argumentation is currently an emerging research topic in the field of argumentation theory (e.g. Birdsell and Groarke, 1996; Blair, 1996; Kjeldsen, 2012; Tseronis, 2013).
advertisements that are primarily verbal. This excludes, for instance, advertisements in which visual metaphors are used to convey the advertiser’s argumentation (cf. Pollaroli & Rocci, 2015).

The current chapter revolves around the following research question (research question 1):

What are the extrinsic constraints imposed by the argumentative activity type of direct-to-consumer medical advertisements?

As was discussed in Chapter 1, in order to determine the institutional pre-conditions that constrain the strategic maneuvering in DTC medical advertisements, it is necessary to provide a characterization of direct-to-consumer medical advertisements as an argumentative activity type. In this way it will be possible to explain how an advertiser’s argumentation is influenced by the specific institutional features of the advertisements. A first step towards characterizing DTC medical advertisements as an argumentative activity type is defining these advertisements as a communicative activity type by focusing on their general conventionalized characteristics. Such a “general” characterization is necessary to provide an institutional perspective that can later be used for taking into account the activity type’s specific argumentative characteristics.

In the pragma-dialectical theory of argumentation, communicative activity types are considered to be conventionalized practices, aimed at fulfilling the institutional needs prevailing in a certain domain of communicative activity (van Eemeren 2010, pp 129-162). A communicative activity type is defined by its institutional point – associated with the domain it belongs to and the genre that is implemented in it – and its institutional conventions and situational circumstances. An activity type’s institutional point is the criterion for distinguishing one communicative activity type from another: the rationale of the communicative activity type, related to the purpose that caused the activity type to come into being. The institutional point of DTC medical ads, connected to the communicative domain they belong to and the genre that is implemented in them, will be discussed in Section 2.2. Next, the conventions and circumstances of the activity type will be dealt with: the explicit and implicit norms and conditions that constrain the communication in this context. Section 2.3 describes these institutional conventions: explicit rules concerning medical DTC advertisements, implicit situational circumstances and practical restrictions connected to the advertising format.

Starting from these general conventions, the activity type will consequently be characterized in terms of its argumentative features. If a communicative activity type is wholly or partly argumentative in nature, it can be characterized as an argumentative activity type (van Eemeren, 2010, p. 145) to identify the constraints that are posed on the possibilities for strategic maneuvering in a specific context. In my attempt at specifying the argumentative dimension of the communicative activity type of DTC medical ads, I will concentrate on the empirical counterparts of the four analytical stages of a critical discussion, which are the focal points in a resolution process: the initial situation, the material and procedural starting points, the argumentative means and criticisms, and the outcome of an argumentative exchange (van Eemeren, 2010, p. 146). This will be done in Section 2.4. Finally, in Section 2.5 I will discuss the institutional pre-conditions for
strategic maneuvering that result from the argumentative characterization of the activity type, in terms of the three aspects of strategic maneuvering: choice from the topical potential, adaptation to audience demand and use of presentational devices.

DTC medical ads could of course be characterized by using other frameworks than the one sketched above – for instance, a characterization could also focus on ethical concerns or marketing strategies. My choice for a pragma-dialectical characterization including domain, genre and institutional point is motivated by the aim of the analytical part of my dissertation: providing an account of an advertiser’s strategic maneuvering in direct-to-consumer medical advertisements in anticipating critical questions concerning experience-based authority argumentation. The purpose of characterizing communicative activity types in this particular way is to make clear that the possibilities for strategic maneuvering are dependent on certain macro-contextual constraints that are instrumental to reaching the activity type’s institutional point, using a certain genre of communication (van Eemeren, 2010, p. 142). A pragma-dialectical approach to communicative activity types will enable me to determine how the context of the DTC medical advertisement influences an advertiser’s possibilities for strategic maneuvering with authority arguments.

2.2 The Institutional Point

Strategic maneuvering within a certain communicative activity type is always aimed at realizing that activity type’s institutional point. The communicative activity type of a doctor’s consult, for instance, is aimed at realizing the institutional point of finding a solution to a medical problem. In realizing the institutional point of a communicative activity type, the communicative actors strive to fulfill a common goal pertaining to a certain communicative domain. Our exemplary case of a doctor’s consult falls within the domain of medical communication, in which – arguably – all communicative activities are aimed at the goal of maintaining or improving health. An institutional point can only be realized by implementing an appropriate genre of communication, which is the genre “consultation” in the case of the medical domain. A genre is a specific way of using language, connected to a particular type of social activity.\(^3\)

In order to determine the institutional point of DTC medical advertisements, I will now discuss the crucial characteristics of these advertisements, starting off with a description of the two different kinds of DTC medical ads that can be distinguished: DTC prescription drug advertisements, and DTC advertisements for freely obtainable medical products.\(^4\) The first kind concerns medical products that can only be obtained by means of a doctor’s prescription. DTC prescription drug ads are allowed in the United States

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3 This use of the term “genre” is based on van Eemeren (2010).

4 My characterization of the communicative (and consequently the argumentative) activity type of DTC medical advertisements will encompass both types of advertisements: those for prescription drugs and those for freely obtainable medical products. As I will indicate in all relevant cases, some of the rules and guidelines that I will discuss only apply to prescription drug advertisements and not to advertisements for freely obtainable medical products.
and New Zealand, but not, for instance, in the European Union. There are legal rules prescription drug advertisements have to comply with, such as the obligation to mention possible side-effects and contraindications, and to explicitly compare the risks of a drug to its benefits (US Code of Federal Regulations, Title 16, Chapter 1, Subchapter B). The direct-to-consumer marketing of prescription drugs has always been a controversial topic: some claim that the advertisements confuse and mislead consumers, stimulate unnecessary demand for costly brands of drugs, and lead to inappropriate prescription drug use, while others claim that the advertisements can inform and educate consumers, prime them to ask more informed questions when they see their doctor, and lead to an increase in competition among pharmaceutical companies which will lower the prices of prescription drugs (for a discussion of the debate on DTC prescription drug ads see Hoek, Gendall & Feetham, 2001; Ventola, 2011).

The second kind of medical DTC ads concerns freely obtainable medical products, including over-the-counter drugs (such as freely obtainable pain killers), medical devices (such as hearing aids) and other health products (such as skin care products). Contrary to DTC prescription drug ads, ads for freely obtainable medical products are permitted in other countries than just the United States and New Zealand.

In both types of DTC advertisements – those for prescription drugs and those for freely obtainable medical products – the ultimate raison d’être of the communicative activity is to sell a certain product. According to van Eemeren (2010, p. 235) an advertisement revolves around the prescriptive standpoint that the advertised product should be purchased, although that standpoint usually remains implicit. The goal of making a consumer use a certain product is a crucial element in DTC medical ads. This goal is a feature that DTC medical advertisements have in common with other types of promotional materials.

What sets a medical DTC ad apart from other types of advertisements is the following: besides being an advertisement directed at promotion, the medical DTC ad bears a number of similarities to the activity type of a doctor’s consult. A medical problem is introduced, and a treatment option is suggested. One of the reasons given by the proponents of DTC prescription drug ads for not banning such advertisements is in fact that the ads inform patients about possible remedies for their medical problems. While patients might have previously been unaware of the existence of such remedies, DTC ads educate them, so that they are more inclined to seek help.

The regulations for DTC medical ads emphasize the informative duty that pharmaceutical companies have towards consumers. One reason for this informative duty is that the positions of the advertiser and the consumer are far from equal: while pharmaceutical companies are in possession of medical knowledge, the readers of DTC medical ads are generally not experts in the medical field. Although in the case of prescription drugs, it is of course up to the prescribing physician to decide whether a patient will get to use a certain prescription drug or not, doctors have been shown to

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5 The term "health product" is differently defined in different countries. In Canada, for instance, the term usually indicates traditional herbal remedies or homeopathic medicines. In this chapter, I use the words "other health products" to refer to any type of product that is intended to enhance health and is not officially registered as a drug or medical device.
feel a certain amount of pressure to prescribe the drug that a patient asks for. The World Health organization states that “surveys carried out in New Zealand and in the USA show that when a patient asks for a specific drug by name they receive it more often than not” (World Health Organization, 2009, p. 577). In a survey conducted under 454 family physicians, 71 percent of the respondents indicated to believe that direct-to-consumer advertising pressures physicians into prescribing drugs that they would not ordinarily prescribe (Lipsky & Taylor, 1997). Direct-to-consumer advertisements – both printed and televised ones – have been shown to directly influence patients’ prescription drug use: in a 2008 survey conducted by USA Today, The Henry J. Kaiser Family Foundation, and the Harvard School of Public Health, nearly a third (32%) of the respondents reported to have talked to their doctor about a drug they saw advertised, and 44% of those who talked to their doctor received a prescription for the medication they asked about (USA Today, Kaiser Family Foundation, & Harvard School of Public Health, 2008, Chart 24).

To protect consumers’ interests, and to decrease the inequality between advertisers and readers of medical advertisements, the Food and Drug Administration (FDA) oversees DTC medical advertising in the United States.\(^6\) The Office of Prescription Drug Promotion (OPDP), the office within the FDA that is responsible for monitoring these ads, states its mission to be “to protect the public health by assuring prescription drug information is truthful, balanced and accurately communicated” (Office of Prescription Drug Promotion, n.d.). It is not enough for advertisers to simply include the side-effects and contra-indications of a drug in a small font at the end of an advertisement: advertisers are required to present a consumer-friendly comparison between the risks and the benefits of a drug, without putting too much emphasis on the drug’s positive qualities (Code of Federal Regulations, Title 21, Chapter I, Subchapter C, Section 202).

Additionally, the industry itself has drawn up a number of voluntary “Guiding Principles”, which most of the major pharmaceutical companies have agreed to follow. These principles are laid down by PhRMA (Pharmaceutical Research and Manufacturers of America), the organization that represents America’s leading pharmaceutical companies. PhRMA explains their reasons for drawing up these guiding principles as follows:

> As the companies responsible for developing new and innovative medicines, PhRMA members want patients and consumers to talk to their physicians about the medicines that may help them and to fully understand the known risks regarding these medicines. We know that DTC communications (…) can be a powerful tool for reaching and educating millions of people, and we are committed to ensuring that our DTC communications provide accurate, accessible and useful health information to patients and consumers. DTC advertising of such important and powerful products as prescription drugs should be responsibly designed to achieve these goals and to encourage the appropriate use of these products.

(Pharmaceutical Research and Manufacturers of America, 2008, p. 3)

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The legal requirements and guiding principles for DTC medical ads are somewhat similar to rules that doctors have to follow in their consultations to fulfill the legal doctrine of informed consent: making sure that a patient has all the information required to properly decide about a medical treatment. This responsibility to “educate” consumers regarding their disease and the appropriate medical treatment for it, is acknowledged by the industry itself in the following two PhRMA principles:

These Principles are premised on the recognition that DTC advertising of prescription medicines can benefit the public health by increasing awareness about diseases, educating patients about treatment options, motivating patients to contact their physicians and engage in a dialogue about health concerns, increasing the likelihood that patients will receive appropriate care for conditions that are frequently under-diagnosed and under-treated, and encouraging compliance with prescription drug treatment regimens.

(Principle 1, Pharmaceutical Research and Manufacturers of America, 2008, p. 5)

DTC television and print advertising which is designed to market a prescription drug should also be designed to responsibly educate the consumer about that medicine and, where appropriate, the condition for which it may be prescribed. (…)

(Principle 3, Pharmaceutical Research and Manufacturers of America, 2008, p. 5)

An important difference between medical consultation and direct-to-consumer medical ads, however, is that in advertisements commercial goals are at stake. The aforementioned overall goal of actors in the domain of commercial communication, to sell a product, is a crucial feature of the communicative activity type of DTC medical ads.

Considering the advertisements’ commercial goals as well as the informative goals set forth in the legislation and the industry’s own guiding principles, DTC medical advertisements can be regarded as a hybrid communicative activity type, with a composite institutional point. Such a composite institutional point should both include the aim to get the reader of the advertisement to use a certain medical product, and the aim to find an appropriate solution for a patient’s medical problem. The advertiser’s aim of selling a product can be reached by implementing the genre of “promotion”, and is directed towards fulfilling the overall goal pertaining to the domain of commercial communication: making profit. The aim of finding an appropriate solution for a patient’s medical problem amounts to enabling consumers to determine whether they should try the advertised drug by providing reasonable argumentation for and against the use of the drug. This aim requires implementing the genre of “consultation”, which is prototypically used in the

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7 A similar kind of hybridity, although not in the medical domain, can be found in the communicative activity type of advertorials that function as an apologia and at the same time defend a certain policy, where promotional as well as adjudicatory aims are at stake. See van Eemeren (2010, pp. 174-187) for a discussion of this communicative activity type concerning an advertorial by the oil company Shell, defending its role in Nigeria.
domain of “medical communication”, a domain where the overall goal is “maintaining or improving health”.

Combining both perspectives, the activity type of DTC medical advertisements can be placed within an overlap between the communicative domains of medical communication and commercial communication. This overlap is the reason for the aforementioned hybridity of the activity type, which gives rise to a composite institutional point. The first, commercial constituent of the institutional point can be formulated as “getting suitable patients to use a certain medical product”. This constituent is to be realized by implementing the genre of promotion. The second, medical constituent can be formulated as “enabling patients to carefully consider whether or not they should use a certain medical product,” and has to be realized by implementing the genre of consultation.

In order to fulfill the institutional point of this communicative activity type, it is necessary to realize both its constituents. The medical constituent can then be a means for realizing the commercial constituent: by enabling readers to carefully consider whether they should use a particular medical product, an advertiser can fulfill his or her commercial goal of getting suitable patients to actually use that product.

By realizing the two constituents of the institutional point, the advertiser will fulfill both overall goals of the communicative activity type of DTC medical advertisements: the commercial goal of making profit, and the medical goal of maintaining or improving health. Taking into account the reconciliation of the overall goals pertaining to the commercial domain and the medical domain, the institutional point of this activity type can be formulated as “to achieve that patients who can reasonably conclude that a certain medical product is appropriate for them, after careful consideration of the product’s risks and benefits, will use that medical product”.

Figure 2.1 provides a schematic overview of the domains, genres and institutional point in direct-to-consumer medical advertisements.

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8 The genre of consultation should be seen more broadly than just in the context of doctor-patient consults: it can be employed in different sorts of medical advice-giving, such as, for instance, advisory health brochures (see van Poppel, 2013, p. 21).

9 Although the primary aim of an advertiser is to sell a product, the inclusion of the word “suitable” in the commercial constituent of the institutional point is meant to indicate that even regarded from a commercial perspective, pharmaceutical companies are not likely to want to sell drugs to patients for whom these drugs are not appropriate, if only because negative press coverage about (possibly fatal) consequences of patients using inappropriate drugs would not be beneficial to an advertiser’s commercial aims.
Chapter 2

Direct-to-Consumer Medical Advertisements

<table>
<thead>
<tr>
<th>Domain</th>
<th>Commercial communication</th>
<th>Medical communication</th>
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</thead>
<tbody>
<tr>
<td>Genre Prototypically Implemented in Domain</td>
<td>Promotion</td>
<td>Consultation</td>
</tr>
<tr>
<td>Overall Goal of Actors in Domain</td>
<td>Making profit</td>
<td>Maintaining or improving health</td>
</tr>
<tr>
<td>Constituents of Institutional Point</td>
<td>Constituent 1: Getting suitable patients to use a certain medical product</td>
<td>Constituent 2: Enabling patients to carefully consider whether or not they should use a certain medical product</td>
</tr>
<tr>
<td>Composite Institutional Point</td>
<td>To achieve that patients who can reasonably conclude that a certain medical product is appropriate for them, after careful consideration of the product’s risks and benefits, will use that medical product</td>
<td></td>
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</tbody>
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Figure 2.1. The institutional point of direct-to-consumer medical advertisements as a composite of two constituents.

2.3 Conventions and Circumstances

Having stipulated the institutional point of DTC medical advertisements, I will now discuss the conventions and circumstances shaping these advertisements. Generally speaking, the conventions and circumstances of a communicative activity type are the specific rules, norms and habits that one needs to abide by in order to successfully communicate within that activity type. Some conventions are explicitly stated in the form of regulations or guidelines, while others can be inferred by observing instances of communication in a particular context. The current section starts off with a discussion of the former category, i.e. the explicit conventions of DTC medical advertisements, consisting of the legal
rules applying in the United States. My overview of legal rules will be followed by a discussion of the institutional circumstances that play a role in these ads: the situational characteristics that are not written down but nonetheless influence the communication in this context, such as the practical limitations of the advertising format.

Explicit Conventions regarding DTC Medical Advertisements
The Federal Trade Commission (FTC) oversees and regulates advertising in the United States. The FTC’s authority is based on the US Federal Trade Commission Act which contains, among other things, a collection of rules that govern the contents of advertisements. This collection of rules is known as the federal *truth-in-advertising law*. The three most important criteria that advertisements must fulfill to be in compliance with this truth-in-advertising law is that they must be *truthful and non-deceptive*, that advertisers *must have evidence to back up their claims*, and that advertisements *may not be unfair or harmful* (Federal Trade Commission Act, 15 US Code, Chapter 2, Subchapter 1). All advertisements in the United States, including those for – prescription-only or freely obtainable – medical products, need to adhere to these rules. The FTC looks especially closely at advertisements for products that might be harmful to consumers, such as over-the-counter drugs:

As with any other product, claims for OTC drugs must be truthful and non-deceptive. Given the health and safety issues that can arise in marketing these products, advertisers should take care in substantiating their claims. Depending on the claim, advertisers may be required to back up their representations with competent and reliable scientific evidence, including tests, studies, or other objective data. (Federal Trade Commission, n.d.)

Apart from being required to adhere to the truth-in-advertising law, *prescription drug advertisements* also have to comply with additional legal rules which are laid down by the Food and Drug Administration (FDA). These rules specifically prohibit, for instance, suggesting that a drug is safe or effective when this has not been demonstrated by substantial evidence, and overstating a drug’s benefits or downplaying its risks.

The FDA’s authority is based on a number of US laws, including the Code of Federal Regulations (U.S. Government Publishing Office, n.d.). The Code of Federal Regulations (CFR) requires, among other things, that an ad contains a fair balance of a drug’s risks and benefits, both in content and presentation. The relevant section of the CFR is quoted below. It is especially the last part of the quote, printed in bold face here, that impels the advertiser to accurately compare the reasons for using a prescription drug with those for not using it.

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10 These regulations were already briefly discussed in Section 2.2, but that discussion focused on the *purpose* of the legislation in light of the institutional point of DTC medical advertisements. In the current section the actual regulations will be considered.

11 Additional rules are laid down for particular advertising practices, such as the use of endorsements. The specific US legal rules concerning endorsements in advertising will be discussed in Chapter 3, in the context of the soundness conditions for experience-based authority argumentation in DTC medical advertisements.
21 Code of Federal Regulations, Chapter 1, §202.1:

(5) True statement of information
An advertisement does not satisfy the requirement that it present a “true statement” of information in brief summary relating to side effects, contraindications, and effectiveness if:

(i) It is false or misleading with respect to side effects, contraindications, or effectiveness;

or

(ii) It fails to present a fair balance between information relating to side effects and contraindications and information relating to effectiveness of the drug in that the information relating to effectiveness is presented in greater scope, depth, or detail than is required (…) and this information is not fairly balanced by a presentation of a summary of true information relating to side effects and contraindications of the drug;

Provided, however,

That no advertisement shall be considered to be in violation of this section if the presentation of true information relating to side effects and contraindications is comparable in depth and detail with the claims for effectiveness or safety. [bold face added, RW]

In the part of the quote that I printed in bold face, the legislator uses the term “information” relating to side effects and contraindications, while statements about effectiveness and safety are called “claims”. Whereas the word “claim” can be defined as a subjective statement that is not necessarily true, “information” is a more objective term. The difference in formulation suggests that statements regarding effectiveness and safety are considered to be of a more subjective nature, while statements regarding side effects and contraindications are considered to be neutral. However, both the “claims” and the “information” in this quote can be regarded as possible arguments: arguments in support of using a drug, and arguments against using it.

While presenting arguments against the use of a drug does not directly contribute to the commercial goal of selling a product, it does contribute to the medical goal of making sure that a reader decides what is best for him based on a thorough consideration. The reader can then weigh the reasons that are provided: does the promised treatment of certain symptoms outweigh the risk of certain bothersome or even dangerous side-effects? For instance, is the relief of heartburn worth the risk of getting headaches? A way for the advertiser to fulfill both his or her commercial and his or her medical goal is to reasonably argue that for suitable patients, the pros of the drug outweigh the cons. These pros and cons should be comparable in depth and detail (as is stated in CFR 21.1C.§202.1.5 above). Furthermore, they should be presented in an equally prominent manner, as is outlined in the section of the Code of Federal Regulations that explains when an advertisement “may be false, lacking in fair balance, or otherwise misleading”:

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12 Note, however, that it is in the pharmaceutical company’s (medical and commercial) interest that only suitable patients are convinced that the pros of the drug outweigh the cons. Therefore, when a drug is contraindicated for a particular group of people – “do not take this drug if you have a heart condition” – then the advertiser needs to ensure that people with heart conditions will be convinced that the cons outweigh the pros for them.
The Communicative Activity Type of Direct-to-Consumer Medical Advertisements

[if it] fails to present information relating to side effects and contraindications with a **prominence and readability reasonably comparable** with the presentation of information relating to effectiveness of the drug [bold face added, RW] (CFR 21.1C.202.1.7.viii).

Besides the requirement of a fair balance, the Code of Federal Regulation also includes a requirement for the **substantiation** of claims concerning the advertised drugs – a further specification of the general rule from the truth-in-advertising-law that an advertiser needs to have evidence to back up his or her claims. No beneficial claims may be made in DTC prescription drug ads about the effectiveness, use, or safety of drugs if these claims are not supported by substantial evidence. This is explained in the following specification of when an advertisement “is false, lacking in fair balance, or otherwise misleading”:

[if it] contains a representation or suggestion (…) **that a drug is better, more effective, useful in a broader range of conditions or patients (…), safer, has fewer, or less incidence of, or less serious side effects or contraindications than has been demonstrated by substantial evidence or substantial clinical experience** (…) whether or not such representations are made by comparison with other drugs or treatments, and whether or not such a representation or suggestion is made directly or through use of published or unpublished literature, quotations, or other references [bold face added, RW] (CFR 21.1C.202.1.6.i)

At first glance, it might seem like this requirement obliges an advertiser to support all of his or her arguments in favor of using a drug with subordinate argumentation relying on substantial evidence. Note, however, that it is only required that such substantial evidence is **available** (“has been demonstrated”), not that it is actually presented in the advertisement itself.

In addition to the legal requirements in the Code of Federal Regulations, as was mentioned in Section 2.2, 18 voluntary “Guiding Principles” were drawn up by the industry itself, represented by PhRMA (Pharmaceutical Research and Manufacturers of America). These principles include the recognition that one of the aims of DTC prescription drug ads is “motivating patients to contact their physicians and engage in a dialogue about health concerns”, which is reflected in the fact that most DTC prescription drug ads prominently feature the phrase “ask your doctor”. Furthermore, the principles – that all major pharmaceutical companies in the US have agreed to adhere to – explicitly include the instruction that advertisements should be in compliance with the FDA regulations:

In accordance with FDA regulations, all DTC information should be accurate and not misleading, should make claims only when supported by substantial evidence, should reflect balance between risks and benefits, and should be consistent with FDA approved labeling. Accordingly, companies should continue to base promotional claims on FDA approved labeling and not promote medicines for off-label uses, including in DTC advertisements.

(Principle 2, Pharmaceutical Research and Manufacturers of America, 2008, p. 5)
Institutional Circumstances of Direct-to-Consumer Medical Advertisements

Besides the written rules and guidelines for DTC medical advertisements, there are a number of constraints in the circumstances under which communication takes place in this communicative activity type. These are not explicitly laid down in laws or guidelines, but can be inferred from observing the advertisements.

First of all, it is important to note that the discussion format of DTC medical advertisements is implicit: there is no explicit discussion going on between two discussion parties. While in some other communicative activity types, such as a debate, both discussants are present, in advertisements we only see the contribution of the advertiser and not that of the consumer whom the advertiser is trying to convince to buy his or her product. The antagonist’s role is only represented by the critical reactions that the advertiser anticipates consumers to have: the advertiser tries to imagine how the consumer may respond to the advertisement, and tries to take the consumer’s response into account.

Even though only one party is arguing, we can still reconstruct an advertisement as a critical discussion, if we consider the antagonist to be the consumer that the advertiser is implicitly addressing. As it happens, the consumer is the one who makes the ultimate decision about the acceptability of the advertiser’s standpoint, although due to the implicitness of the discussion, (s)he cannot explicitly inform the advertiser of whether (s) he accepts the standpoint or not. The consumer’s decision on whether to use the medical product or not can be seen as a “consecutive perlocutionary consequence” of accepting or not accepting the advertiser’s standpoint, but the act of obtaining the actual medical product is in itself not a part of the critical discussion that we can reconstruct from the text of the advertisement.13

A second institutional circumstance is the asymmetry of knowledge between the pharmaceutical company and the audience: while pharmaceutical companies possess a high level of medical knowledge and understand the medical characteristics of their products, the readers of these ads are usually no medical experts. Because of a lack of medical knowledge on the part of those readers, arguments regarding the functioning or efficacy of medical products might be somewhat difficult to understand for the intended buyers of these products. Advertisers will have to overcome this difficulty by using arguments that do not require a lot of medical knowledge in order to convey to consumers that they should use the advertised product.

Certain practical limitations of the advertising format can also be seen as constraints posed by the institutional circumstances of DTC medical advertisements. US prescription drug ads are required, for instance, to have a “brief summary” of the drug’s most important features, comparable to the information one finds in a package insert. This brief summary is usually printed on one or more magazine pages adjacent to the page where the main ad is printed, allowing advertisers to keep the ad itself short, while providing more detailed information in the brief summary. Keeping the ad itself short is important as people usually do not have a preconceived plan to read an ad, but rather have

13 Van Eemeren and Grootendorst (1984, p. 24) differentiate between the inherent perlocutionary effect of a speech act, which is the effect that the speech act is accepted by the listener, and consecutive perlocutionary consequences of a speech act, which are all other real-world consequences of a speech act (such as the listener undertaking a particular action).
to be drawn towards it while reading the magazine in which the ad appears. An advertiser only has a limited amount of space to convince the consumer: if the advertisement is too long, the consumer will lose interest.

In order to provide an argumentative characterization of the communicative activity type, in the remainder of this chapter the aforementioned explicit conventions and institutional circumstances will be interpreted in the context of the ideal model of critical discussion.

2.4 An Argumentative Characterization of the Communicative Activity Type

Before I will be able to focus on the institutional pre-conditions for strategic maneuvering in direct-to-consumer medical advertisements, it is necessary to first provide an argumentative characterization of this communicative activity type. In this way it will be possible to explain how an advertiser’s argumentation is influenced by the specific institutional features of the advertisements. In the current section, the communicative activity type of DTC medical advertisements will be characterized argumentatively by interpreting each of the distinctive features discussed in Sections 2.2 and 2.3 in terms of the empirical counterparts of the four analytical stages of a critical discussion.14

In the ideal model of critical discussion, four discussion stages are distinguished (van Eemeren & Grootendorst, 1984, 2004). In the confrontation stage the standpoint at issue and its critical reception are externalized. In the opening stage the common ground between the discussion parties is established in terms of procedural and material starting points. In the argumentation stage the protagonist defends the standpoint by means of arguments, and the protagonist and antagonist jointly subject the protagonist’s argumentation to critical testing. Finally, in the concluding stage the result of the discussion is determined. Each of these stages of the ideal model has an empirical counterpart in argumentative reality. These empirical counterparts are the focal points for the argumentative characterization of the communicative activity type of DTC medical advertisements. In line with the method explained in van Eemeren (2010, p. 146), I will first present the initial situation of DTC medical ads analogous to the confrontation stage of a critical discussion. Then I will indicate the material and procedural starting points pertinent to DTC medical ads, in line with the opening stage. With regard to the argumentation stage, I will discuss the kinds of argumentative means and criticisms that prototypically occur in DTC medical ads. Lastly, the empirical counterpart of the concluding stage will point towards the possible outcome of discussions in this argumentative activity type.

14 The characterization presented in the current section focuses on the general constraints that are posed by the institutional features of the communicative activity type on the four empirical counterparts of discussion stages. The characterization does not include constraints that are only posed on, for instance, the application of one particular argument scheme. Such particular constraints will be added in Chapter 3, when I specify the soundness conditions for experience-based authority argumentation in DTC medical advertisements.
The initial situation of DTC medical ads consists of a pharmaceutical company – or a marketing company on their behalf – advancing a standpoint, addressing a physically absent audience in an implicit discussion. There is an asymmetry of medical knowledge between the pharmaceutical company and the audience. The audience does not play an active role in the discussion, so that its critical responses are only anticipated by the advertiser. The standpoint at issue can be reconstructed as “Suitable patients should use drug X”. The audience is anticipated not yet to be convinced of the acceptability of the standpoint: should the consumer not doubt the standpoint, then the pharmaceutical company would not need to advertise the drug to this audience. Because of the implicitness of the discussion, the consumer is not able to advance doubt or an opposing standpoint. It would be too strong an assumption for the advertiser to anticipate his or her audience to have an opposing standpoint of its own – especially because the audience is mixed, consisting of many different kinds of consumers – but the advertiser can anticipate his or her reader to at least doubt the standpoint. This anticipated doubt results in a non-mixed difference of opinion.

The material starting points of DTC medical ads include the information that should mandatorily be included according to the legal rules and industry guidelines, such as information concerning contraindications and side-effects: they pose a shared “common ground” between the protagonist and antagonist concerning the drug’s most important characteristics (these mandatory material starting points are only applicable for prescription drug advertisements). Regarding procedural starting points, we can make a distinction between explicit, regulated procedures and implicit, practical procedures. The explicit, regulated procedures that the discussants are obliged to follow are the aforementioned legal rules: by printing the ad, the pharmaceutical company has agreed to follow these rules. Moreover, all the major pharmaceutical companies represented by PhRMA – Pharmaceutical Research and Manufacturers of America – explicitly state their agreement to adhere to the legal rules in their own guiding principles. There are also implicit procedural starting points at play that are not written down as rules, but nonetheless have to be taken into account: the practical constraints that the prospective consumer stops reading at some point, and that a printed ad only allows for a limited amount of information to be presented.

Besides arguments in favor of using the advertised drug, the empirical counterpart of the argumentation stage includes a response to the anticipated critical reactions that a reader might have concerning an advertiser’s argumentation. In the ideal model of critical discussion, it is the antagonist’s task to pose these critical questions to the protagonist, but in DTC medical ads the reader is not able to prompt the advertiser to provide such a justification, since there is no explicit discussion going on between the two parties. For prescription drug ads, this problem is solved by means of the regulations: the legal rules and guiding principles protect consumers from the absence of explicit critical testing, by obliging the advertiser to address critical responses – in the form of requiring a comparison of pros and cons of a drug – even though the intended audience has not prompted him to do so. In order to comply with the FDA requirement of a “fair balance”, a prescription drug advertiser should not just provide argumentation in support of using the drug, but (s)he should always supplement this argumentation with relevant counter-arguments on behalf of the antagonist. Apart from the mandatory comparison of the pros
and cons of a drug, in order to be optimally reasonable and effective the advertiser also has to take into account what kinds of critical questions his or her intended audience might have concerning the particular kind of argument schemes that (s)he employs, and has to take these into account in his or her argumentation.

As there is no explicit dialogue, the discussion parties will not come to an explicitly agreed upon resolution of the difference of opinion. Neither the protagonist nor the antagonist will explicitly retract their standpoint or doubt in the empirical counterpart of the concluding stage. The outcome of the discussion can, however, be inferred from the consecutive perlocutionary consequence of the well-informed consumer buying – or in case of a prescription drug: asking his or her doctor for – the marketed drug based on the advertisement. This can be reconstructed as a retraction of doubt: if the consumer still doubted the advertiser’s standpoint, (s)he would not seek to use the advertised product. Although it is difficult for an advertiser to determine whether each individual consumer is indeed convinced by his or her advertisement, an advertiser might infer the outcome of the discussion from the revenue of the advertised drug: if sales of the drug significantly increase after a particular ad has been printed, this might be an indication that several discussions were concluded in the advertiser’s favor. A return to the initial situation of the discussion is possible if the difference of opinion has not been resolved: a consumer might still doubt the advertiser’s standpoint after reading an ad for the first time, but might nonetheless decide to read the ad again when (s)he encounters it at a different point in time.

Figure 2.2 provides an overview of the argumentative characterization of DTC medical advertisements in line with the four focal points of a critical discussion.
<table>
<thead>
<tr>
<th>Focal point</th>
<th>Initial situation</th>
<th>Material and procedural starting points</th>
<th>Argumentative means and criticism</th>
<th>Possible outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>promotion and consultation</strong></td>
<td>• anticipated non-mixed difference of opinion on whether suitable patients should use the advertised product • decision through consumer either using or not using product • asymmetry in medical knowledge between pharmaceutical company and consumer</td>
<td><strong>material:</strong> • (only for prescription drug ads: mandatory inclusion of material starting points regarding side-effects and contraindications) <strong>procedural:</strong> • discussants agree to follow laws and guiding principles • discussants have to conduct the discussion within the bounds of practical limitations to size and form of advertisement, such as limited length • division of roles is such that advertiser fulfills role of protagonist and consumer implicitly fulfills role of antagonist</td>
<td>• argumentation in support of using a certain medical product, presented in a monological advertisement • (only for prescription drug ads: mandatory provision of relevant counter-arguments by advertiser on behalf of absent antagonist) • argumentation should include responses to anticipated critical reactions</td>
<td>• possible implicit resolution by consecutive perlocutionary consequence of consumer using advertised product on the basis of well-informed rational consideration • possible return to initial situation if consumer has not retracted doubt and decides to read ad an additional time</td>
</tr>
</tbody>
</table>

Figure 2.2. Argumentative characterization of the communicative activity type of direct-to-consumer medical advertisements.
2.5 Institutional Pre-conditions for Strategic Maneuvering

Now that DTC medical ads have been characterized as an argumentative activity type, it is possible to determine the institutional pre-conditions that constrain the strategic maneuvering in this activity type (as discussed in Chapter 1). The current section takes into account the particular pre-conditions for strategic maneuvering that are generated by the institutional constraints of the activity type. These institutional pre-conditions restrict the discussants’ possibilities for strategic maneuvering, but also open up opportunities for them. In what follows, they will be discussed on the basis of the three aspects of strategic maneuvering: choice from the topical potential, adaptation to audience demand and use of presentational devices.15

**Choice from the topical potential**

The first aspect of strategic maneuvering, the “choice from the topical potential”, reflects the idea that in order to balance their dialectical and rhetorical aims, arguers have to make the most opportune selection from the possible argumentative moves that are available at a certain point in the discourse (van Eemeren, 2010, p. 96-101). In the initial situation of a DTC medical advertisement, an advertiser’s choice from the topical potential is very restricted. In order to fulfill the institutional point of the communicative activity type, (s)he has to be committed to the prescriptive standpoint that suitable patients should use the advertised medical product.

As to the material and procedural starting points, the topical potential that an advertiser can choose from is also limited. In prescription drug ads, (s)he is obliged to include the side-effects and contra-indications of the advertised drug as material starting points in the brief summary accompanying the ad as well as in the main text of the ad itself. In all DTC medical ads, because the discussion is implicit, the protagonist cannot actually talk the antagonist into accepting certain premises as common starting points, but advertisers can nonetheless still try to elicit particular concessions from readers – for instance, by posing a question regarding a certain medical condition in the headline of an ad, such as “high blood pressure?”. If a consumer decides to go ahead and read an advertisement based on a positive answer to that question, the advertiser has to a certain extent elicited the concession from the consumer that (s)he is indeed suffering from high blood pressure, which can then be added to the list of common starting points. As to procedural starting points, the advertiser always has to abide by the practical constraints concerning the size and form of the advertisement and by the legal rules; there is no possibility to “negotiate” these procedural starting points with the antagonist.

Concerning the argumentative means, for prescription drug ads the legal requirement of a “fair balance” gives rise to the constraint that in order to appropriately advertise a prescription drug, an advertiser should not just provide argumentation in support of using the drug, but also supplement this argumentation with relevant (anticipated) counter-arguments. Mentioning these counter-arguments is a way of

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15 Although these aspects can analytically be distinguished, they should not be regarded separate from each other. In empirical reality they are always intertwined: every discussion move involves a combination of the three (van Eemeren, 2010, p. 93).
fulfilling the requirement of a fair balance, while showing that the supporting arguments outweigh the counterarguments – at least for suitable patients – contributes to the goal of promoting the drug.

Furthermore, in all DTC medical ads advertisers prototypically advance one or more pragmatic arguments, because the standpoint that is defended is always prescriptive – “suitable patients should use drug X” – and because potential reasons for using an advertised drug typically relate to the desirable consequence of using that drug: that the drug provides a remedy for a certain medical problem. This pragmatic argumentation may be supplemented with – or further supported by – other types of argumentation, without any particular restriction on the kinds of argument schemes that can be employed. An advertiser’s topical potential of arguments to advance is constrained, however, by the requirement that all beneficial claims about a drug need to rely on substantial evidence: the advertiser’s choice is restricted to only those arguments of which (s)he knows that they can be further supported by substantial evidence.

Since the concluding stage of a DTC medical ad prototypically remains implicit, the empirical counterpart of this stage – the possible outcome of the discussion – is typically absent, although an advertiser can choose to draw a one-sided conclusion. This can be done, for instance, by once again putting forward his or her standpoint at the bottom of the advertisement, thereby suggesting that (s)he has successfully defended it.

**Adaptation to audience demand**

The second aspect of strategic maneuvering, the “adaptation to audience demand”, has to do with the necessity to “tune” the argumentative moves that are made to the requirements of the people that the discourse is aimed at (van Eemeren, 2010, pp. 108-113). In the initial situation of a DTC medical advertisement, adaptation to audience demand is reflected in advertisers making sure that they address an audience consisting of the potential users of the advertised product: patients suffering from a specific medical condition for which the product provides a remedy, and for whom the product is not counter-indicated – for instance because of other medical problems they suffer from, or because they are children.

Advertisers can base their argumentation on certain material starting points by finding out what values or other specific starting points their intended audience may be expected to share. Concerning procedural starting points, advertisers adapt to audience demand by agreeing to adhere to the legal rules and industry guidelines for these advertisements. Because their intended audience expects them to follow these rules and guidelines, deviating from them would not only be illegal – it would also be inopportune from the perspective of being optimally reasonable and effective.

For the argumentative means and criticisms, advertisers adapt to audience demand by anticipating specific counter-arguments and other critical reactions and taking these into account in their argumentation. By anticipating criticisms the intended audience might have and attempting to refute them, an advertiser can increase the chances of his or her arguments being accepted. The anticipation of critical questions by advertisers in DTC medical ads as a form of strategic maneuvering will be further discussed in Chapter 4 of this dissertation.
Adaptation to audience demand in the argumentative means is also important because of the asymmetry in medical knowledge between pharmaceutical companies and consumers. Other than in medical advertisements aimed at medical professionals, in DTC medical advertisements arguments regarding the functioning or efficacy of medical products might be hard to understand for the intended readers. This is a difficulty that advertisers have to overcome by using arguments that do not rely on too much medical knowledge in order to convey to consumers that they should use the advertised product.

As to the possible outcome of the discussion, an advertiser can adapt to audience demand by providing information on where the reader can get financial support if (s) he is without prescription coverage. Such a move suggests that the advertiser anticipates that in principle the consumer is convinced that (s)he should use the drug, but there are financial constraints that stop him or her from actually obtaining it. If the advertiser expects (a considerable part) of his intended audience not to have sufficient health insurance coverage, the provision of such information can be a fruitful adaptation to audience demand.

**Use of presentational devices**

The final aspect of strategic maneuvering, the “use of presentational devices”, pertains to the specific communicative means that are employed to present argumentative moves (van Eemeren, 2010, pp. 118-122). In the initial situation of DTC prescription drug advertisements, the PhRMA guideline that pharmaceutical companies have a responsibility for furthering exchanges between doctors and patients results in a particular use of presentational devices in the phrasing of the standpoint. Rather than leaving this prescriptive standpoint implicit, as is usually done in advertisements (van Eemeren, 2010, p. 235), DTC prescription drug ads prototypically include the explicit standpoint that a patient should ask his or her doctor about the advertised drug. Such a phrasing contributes to an advertiser’s medical as well as commercial aims at once: it is an incentive to speak to one’s doctor, but it is also an incentive to seek usage of the advertised drug.

As to presentational devices for the starting points, in prescription drug ads the advertiser needs to make sure that the material starting points that mandatorily should be included – information regarding side-effects and contra-indications – are presented in a clear and conspicuous manner and are phrased in an unambiguous way. Because of the asymmetry of knowledge between the writers and readers of these ads, an advertiser needs to use language that is easily understandable for normal consumers, to make sure that information regarding side-effects and contra-indications is not just known to the pharmaceutical company, but actually becomes a shared starting point for the two discussion parties.

For the argumentative means, in prescription drug ads a “fair balance” should not just be achieved concerning the content of an ad, but also concerning its presentation. In his or her strategic maneuvering, an advertiser cannot use presentational devices in a way that gives more prominence to the pros of a drug than to its cons, as this would violate the legal requirement of pros and cons being “comparable in depth and detail”.

The advertiser’s use of presentational devices in the initial situation, as regards the explicit phrasing of the standpoint that the patient should ask his or her doctor about the advertised drug, can be repeated concerning the outcome of the discussion. By once more enticing the reader to speak to his or her doctor about the advertised drug at the bottom of the advertisement, the advertiser provides the consumer with instructions on how to proceed if (s)he is indeed convinced that (s)he should use the advertised drug.

2.6 Conclusion

This chapter set out to answer my first research question:

What are the extrinsic constraints imposed by the argumentative activity type of direct-to-consumer medical advertisements?

To answer this question, I have first discussed the communicative activity type’s institutional point and the explicit conventions and implicit institutional circumstances that shape the argumentation in the particular context of DTC medical ads. Based on these findings, I have consequently characterized DTC medical advertisements as an argumentative activity type and I have specified the pre-conditions for strategic maneuvering in this activity type.

An advertiser’s commercial aim in DTC medical advertisements is to get the reader of his or her advertisement to use a certain medical product. That aim can be reached by implementing the genre of promotion, which is directed towards fulfilling the overall goal pertaining to the communicative domain of commercial communication: making profit. When we look at the goals set forth in the legal rules governing these ads and in the guiding principles of the industry itself, DTC medical ads are also meant to enable consumers to carefully consider whether they should use a certain medical product. That second goal can be realized by implementing the genre of consultation, which contributes to the overall goal of the communicative domain of medical communication: maintaining or improving health.

The DTC medical advertisement is a hybrid activity type that can be positioned in an overlap between two communicative domains. Its hybridity is reflected in its composite institutional point: to achieve that patients who can reasonably conclude that a certain medical product is appropriate for them, after careful consideration of the product’s risks and benefits, will use that medical product.

The conventions and institutional circumstances of the communicative activity type – the explicit and implicit norms that constrain the communication in the context at issue – involve explicit legal rules and industry principles concerning DTC medical advertisements. They also involve a number of implicit institutional circumstances connected to the advertising format, such as the fact that the discussion is implicit: we only see the advertiser’s text, not the consumer’s response. Starting from these conventions and circumstances, the empirical counterparts of the four discussion stages in the ideal model of critical discussion – the initial situation, the procedural and material starting points,
the argumentative means and criticisms, and the possible outcome of an argumentative exchange – were characterized for this activity type.

After characterizing the communicative activity type of DTC medical advertisements in terms of its argumentative features, the extrinsic constraints were determined that provide the institutional pre-conditions for the three aspects of strategic maneuvering in this activity type. In the remainder of the dissertation, these extrinsic constraints will be used as a starting point for the analysis of argumentation in the context of DTC medical ads.
3.1 Introduction

Having obtained an argumentative characterization of the communicative activity type of direct-to-consumer (DTC) medical advertisements, the next step in this study is to focus on a specific kind of argumentation that is typically employed in these advertisements. Several kinds of argumentation can be advanced in support of the standpoint that a consumer should ask his or her doctor about a certain medical product. However, as was discussed in Chapter 2, arguments regarding the functioning or efficacy of medical products are generally hard to understand for the intended buyers of those products – there is a certain asymmetry between pharmaceutical companies and the typical readers of DTC medical ads in the amount of medical knowledge that they possess. Advertisers can remedy this difficulty by advancing authority arguments in their DTC medical advertisements. In an authority argument, something is claimed to be the case solely because a trustworthy authority says that it is. In order to be accepted, such an argument does not require any medical knowledge on the part of a reader. It just requires the reader to trust the quoted person as an authority and thereby accept that person’s opinion about the advertised product.

A particular type of authority that is typically appealed to in DTC medical advertisements is the “endorser by experience”: an endorser who has used the advertised product and advises others to try it as well. An “endorsement” is defined in general American advertising law as “any advertising message (...) that consumers are likely to believe reflects the opinions, beliefs, findings, or experiences of a party other than the sponsoring advertiser, even if the views expressed by that party are identical to those of the sponsoring advertiser” (Code of Federal Regulations, 16.IB.255.0(a)). An endorser can be any kind of person ranging from an expert – such as a dentist recommending a certain brand of tooth paste – to a common user of the advertised product, but the current research project only concerns endorsements that rely on an endorser’s personal experience with the advertised product. When I henceforth use the term “endorser”, I intend it to mean “endorser by experience”: someone who has (supposedly) used the advertised product. Although such an endorser is not an expert in the sense of actually possessing medical knowledge about the efficacy of the advertised drug, (s)he can be regarded as an authority on his or her own experience with the drug. When an advertiser quotes a
(supposed) user of an advertised drug in order to support a (sub)standpoint, I define this variety of authority argumentation as *experience-based authority argumentation*.

The research question that the current chapter addresses is the following (research question 2):

What are the relevant critical questions for experience-based authority argumentation in direct-to-consumer medical advertisements?

In order to answer that question, a number of steps need to be taken. Using the pragma-dialectical argumentation theory (van Eemeren & Grootendorst, 1984; 2004) as a theoretical framework, I will first introduce the notion of authority argumentation as a subtype of the symptomatic argument scheme. I will then discuss the soundness conditions for authority argumentation in general and refine these soundness conditions for the evaluation of experience-based authority argumentation in DTC medical advertisements. Finally, I will show how the soundness conditions for experience-based authority argumentation can be represented in a “prototypical argumentative pattern” of DTC medical advertisements.

### 3.2 Authority Argumentation

#### 3.2.1 Argument Schemes

In the pragma-dialectical argumentation theory, the specific tools for testing the soundness of an argument are dependent on the particular “argument scheme” that is employed by a protagonist. The concept of argument schemes can be understood in the context of the intersubjective procedures that the two discussants in a critical discussion jointly follow in order to establish the soundness of an attempt at justifying or refuting a standpoint (van Eemeren & Grootendorst, 2004).

In the *intersubjective identification procedure* (van Eemeren & Grootendorst, 2004, pp. 145-148), discussants check whether a proposition belongs to the common starting points that were agreed upon in the opening stage of the discussion. When this procedure leads to a positive result, the proposition is acceptable. When it leads to a negative result, the proposition is not yet a common starting point and the discussants will have to apply the *intersubjective testing procedure* (van Eemeren & Grootendorst, pp. 149-150). In that procedure, the discussants check whether an argument scheme is appropriately chosen and correctly applied. To test these issues, it is necessary to determine the relationship between the argument and the standpoint. The nature of that connection is contained in the “major” or “linking” premise of an argument: the premise that explains why the argument can be seen as support for the standpoint. For example, in the argumentation “it

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16 When an argument is presented in a fully explicit and deductively valid form (such as a logical syllogism) rather than being based on an argument scheme, then instead of applying the *intersubjective testing procedure*, the *intersubjective inference procedure* (van Eemeren & Grootendorst, 2004, p. 148) must be applied to check the logical validity of the argument. Typically, however, arguments in real-life discussions are not conclusively valid, relying instead on defeasible reasoning based on argument schemes. When an argument scheme is used (rather than a deductively valid inference), the *intersubjective testing procedure* should always be applied.
has probably rained this morning (standpoint), because the streets are wet (argument), the implicit linking premise that connects the argument to the standpoint is that rain causes streets to become wet, indicating that the relation between the argument and the standpoint is causal. The linking premise typically remains unexpressed, in which case it first needs to be made explicit by the discussants through the intersubjective explicitization procedure (van Eemeren & Grootendorst, pp. 148-149) before they can test whether the argument scheme is appropriately chosen and correctly applied.

Three main argument schemes – three general ways of connecting an argument to a standpoint – are distinguished in the pragma-dialectical argumentation theory: argumentation based on a symptomatic relation, argumentation based on a relation of analogy and argumentation based on a causal relation (van Eemeren & Grootendorst, 1992, p. 97). The argument schemes are categorized according to the way in which the various types of argumentation should be evaluated: “each type of argumentation corresponds to certain assessment criteria that pertain to the relation represented in the argument scheme. (…) Each argument scheme is a pointer to a certain dialectical route. A person who puts forward argumentation anticipates criticism, and by using the one argument scheme rather than the other, he implies that he thinks he knows which route will lead to the justification of his standpoint” (van Eemeren & Grootendorst, 1992, p. 98). This means that using a certain argument scheme invokes a particular testing method in which certain critical reactions are relevant and others are not, so that each argument scheme “calls, as it were, for its own set of critical reactions. In conjunction with each other, these reactions constitute a well-rounded test for checking the soundness of an argumentation of the type concerned” (van Eemeren & Grootendorst, 1992, p. 98). If an argument scheme is correctly applied, then all critical questions concerning that argument scheme can be satisfactorily answered (van Eemeren, Grootendorst & Snoeck Henkemans, 2002, p. 131). If one or more critical questions cannot be satisfactorily answered, and an argument is nonetheless maintained by the protagonist, then the pragma-dialectical “Argument Scheme Rule” has been violated, which means that a fallacy has been committed (van Eemeren & Grootendorst, 2004, p. 172).

The set of critical reactions that can be utilized to evaluate the soundness of an argument scheme should be seen as a suggestion to the two discussion parties. Although in principle, in a critical discussion only those argument schemes should be employed whose problem validity for resolving a dispute is “objectively secured” (van Eemeren & Grootendorst, 1992, p. 159, footnote 2), in the end it is up to the discussants to decide which critical questions should be asked regarding an argument scheme in a particular context, based on which issues are considered disputable in that context (van Eemeren and Grootendorst 2004, pp. 149-150).

What schemes are appropriate and what criteria they must meet is sometimes explicitly agreed upon in the opening stage of the discussion, but in practice “these things will more often be tacitly assumed or presupposed” (van Eemeren & Grootendorst, 1992, p. 159). One of the ways to interpret such a tacit agreement about which argument schemes may be employed and which conditions these schemes should fulfil, is to regard this agreement as an institutional requirement. If a particular institutional context forbids the use of particular schemes, or imposes particular requirements on the criteria that certain arguments need to fulfil, then the discussion parties are considered to have agreed upon
these rules by their act of entering into an argumentative discussion in that particular institutional context, without the need to explicitly state their agreement.

### 3.2.2 Authority Argumentation as a Subtype of the Symptomatic Argument Scheme

Out of the three main argument schemes that the pragma-dialectical argumentation theory distinguishes (symptomatic argumentation, analogy argumentation and causal argumentation), authority argumentation is considered to be a specific subtype of the argument scheme based on a symptomatic relation. The symptomatic relation can be schematically represented as follows:

- **Standpoint:** Y holds of X
- **Because** minor premise: Z holds of X
- **And** major premise: Z indicates Y

In authority argumentation the expertise, authority or extraordinary position of a person or institution is considered to be a sign of the acceptability of the opinion that is attributed to that source. As a schematic representation of authority argumentation I propose the following specification of the symptomatic argument scheme:17

- **X is acceptable**
  - **Because** X is an opinion in field F held by authority A
  - **And** being an opinion in field F held by authority A indicates acceptability

The crux of authority argumentation is that for a certain statement X, a particular property Z – the property of being an opinion, in a certain field, held by a certain authority – is a sign that statement X has characteristic Y – the characteristic of being acceptable.18 The reference to a field F was added to do justice to the fact that A is hardly ever presented as an authority on all possible subject matters. For instance, the argumentation “You have to use this drug, because doctor Smith says that you should” employs the idea that opinions

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17 Wagemans (2011) also discusses authority argumentation from a pragma-dialectical perspective. Our approaches differ in the sense that Wagemans is concerned with argumentation from expert opinion in the context of academic discussions, while I am concerned with experience-based authority argumentation in the context of direct-to-consumer medical advertisements. Our differing aims have resulted in different choices regarding the schematic representation and assessment of the type of authority arguments we are concerned with. The schematic representation of the argument scheme I propose here was to a large part jointly established by Roosmaryn Pilgram and myself (see also Pilgram, 2015), the only difference being that Pilgram does not incorporate the notion of a field F.

18 The word “opinion” should not merely be regarded as an internal, psychological state of the authority, but as something that the authority can be held accountable for because (s)he has expressed this opinion at some point. The reason why I chose to use the concept of an opinion held by authority A rather than a claim by authority A, is that the term “claim” could refer to a statement that A has made a long time ago and of which A has expressed in the meantime that (s)he no longer supports it, while I take “opinion” to refer to something for which A can be held accountable at the moment that the authority argument is put forward. If A expressed a view in the past that (s)he now no longer supports, his or her old statement is still a claim by A, but no longer an opinion held by A.
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held by doctor Smith in the field of healthcare are generally acceptable, not that all opinions held by this doctor are. In extreme cases, an arguer might present someone as an authority on all possible subject matters. We might imagine, for instance, that a devoted religious believer defends standpoints relating to all possible subject matters with the argument “because my deity says so”. In such authority arguments, the field F should be interpreted as a very broad field, containing all possible subject matters. In most cases, however, the field is limited to a certain type of opinions – such as opinions about medical issues.

I hold that different varieties of authority argumentation can be distinguished, based on the reason why the authority is ascribed credibility in the field that is at stake. One example of such a variety is expertise-based authority argumentation, in which the authority is considered an expert in a certain field because of knowledge (s)he has obtained through extensive study or training, such as in appeals to the authority of scientists. Another example is institution-based authority argumentation, in which the authority is granted a special kind of credibility in a particular field because of the institutional position (s)he occupies, such as appeals to the authority of the Pope concerning matters of faith. A final example is experience-based authority argumentation, in which the authority is granted a special epistemic position in a certain field not because of extensive studying or training, but because of his or her personal experience in the field, such as appeals to the authority of endorsers who have experience with an advertised product. This is the variety that the current research project focuses on.19

What separates (all these varieties of) authority argumentation from other kinds of symptomatic argumentation is the characteristic of a source – be it an expert, witness, a book or something else – that vouches for the acceptability of the propositional content of the (sub)standpoint (van Eemeren & Grootendorst, 1992, p. 161). In an authority argument, it is (implicitly) claimed that this source is to be trusted concerning its knowledge, experience or some other characteristic regarding the field that the standpoint relates to. The justificatory force of the argument resides within the authority being a reliable, qualified source. The authority to which the protagonist refers does not necessarily have to be a person; it can also be an institution or a written source, such as a dictionary.

Pilgram (2015, Chapter 3) uses a fourfold distinction, developed in cooperation with van Eemeren, between different ways of employing the concept of authority in a critical discussion: “argument from authority”, “argument by authority”, “existing ethos” and “acquired ethos”. The first two are actual authority argumentation: in the argument from authority the authority referred to is an external source, and in the argument by authority the authority referred to is the protagonist himself. Apart from these two types of authority argumentation, authority can be used by the protagonist as a rhetorical

19 My distinction between different varieties of authority argumentation based on the reason for ascribing credibility to the authority in a field bears similarities to Walton’s distinction between cognitive (epistemic, de facto) and administrative (deontic, de jure) authority (Walton, 1997) and Goodwin’s distinction between authority of command, expertise and dignity (Goodwin, 1998). An important difference, however, is that I do not consider the varieties that I discussed – expertise-based authority, institution-based authority and experience-based authority – as a conclusive list. They are three examples of different kinds of reasons for ascribing an authority credibility regarding the field that is at stake, but other examples of such varieties could be added to this list.
device to generate a favorable impression of himself as being capable or trustworthy as a discussion party, without actually presenting his or her authority as an argument that symptomatically indicates that the standpoint is acceptable. This type of authority is known as *ethos* and can be divided into two different types: *existing ethos* in which an arguer makes use of his or her previously established character, and *acquired ethos*, in which an arguer through one or more discussion moves establishes good character for himself.\(^{20}\)

In the current chapter, I focus on the arguments *from* and *by* authority.\(^{21}\) DTC medical ads generally feature an authority that speaks directly to the reader: testimonials are typically written in the first person singular and feature a picture of the endorser. In some ads, the endorser is also the one who (supposedly) expresses the standpoint of the ad by means of the statement “ask your doctor about [drug X]”, which means that (s) he actually advises the reader to use a drug because (s)he endorses it. In those cases, an argument *by* authority is employed. In other cases, the expression of the standpoint “ask your doctor about [drug X]” is listed in a different part of the ad. In those instances, the endorser is only quoted regarding his or her experience with the drug, without actually providing a recommendation to the reader about using the drug as well. In such ads, an argument *from* authority is employed, because the endorser that is featured in the advertisement is not presented as the protagonist in the discussion – the pharmaceutical company is.\(^{22}\)

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20 Pilgram – based on van Eemeren’s suggestions – founded these two types of *ethos* on the distinction in Aristotle’s *Rhetorica* between “artless” (*atechnoi*) and “artful” (*technoi*) means of persuasion: artless means of persuasion are external circumstances that cannot be influenced by the speaker (although he can still employ them in an opportune way), while artful means of persuasion are the actual techniques that the speaker can use to persuade an audience.

21 I will come back to the two different types of *ethos* in Chapter 4, when discussing advertisers’ strategic maneuvering in effectively employing the *existing ethos* of celebrities appearing in advertisements to endorse a product. I will also investigate how certain argumentative moves support a standpoint by means of an authority argument and simultaneously work as *acquired ethos* maneuvers: testimonials function as *authority* arguments but are at the same time designed to make the authority appear more likeable and recognizable to the reader, thus adding to the acquired ethos and thereby also increasing the persuasiveness of the argumentation.

22 Pilgram introduces the distinction between arguments *by* and *from* authority in the context a doctor’s use of authority in medical consultation. In such a consultation, whether the doctor refers to his or her personal authority or to an external source is considered as a dialectically relevant distinction: it leads to a different set of specific soundness conditions. The soundness conditions for experience-based authority argumentation in DTC medical ads that I discuss in the current chapter, however, are applicable to both arguments *by* authority and arguments *from* authority: for the reasonableness of the argument, it does not matter whether an endorser is actually the protagonist who (supposedly) expresses the standpoint of the ad or whether (s)he is only quoted regarding his or her experience without making a recommendation to the reader. This means that I do not use Pilgram’s ‘by’ versus ‘from’ distinction as a dialectically relevant criterion in my specification of the soundness conditions for experience-based authority arguments in DTC medical advertisements.
3.2.3 Fallacious Uses of Authority Argumentation

In the ideal model of critical discussion, it is only reasonable for the protagonist to advance authority argumentation in defending a standpoint if (s)he knows that the antagonist acknowledges two things. First, that the scheme of authority argumentation is appropriate in the discussion at hand, and second, that the scheme is correctly applied – meaning that the critical questions pertaining to the argument scheme can be answered satisfactorily.

Only when the antagonist acknowledges both aspects is the argument sound according to the pragma-dialectical 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” (van Eemeren & Grootendorst, 2004, p. 194). When an authority argument violates this Argument Scheme Rule, an argumentum ad verecundiam fallacy is committed.

There are several ways in which the protagonist can violate the Argument Scheme Rule with an unsound authority argument. One possibility is that the authority scheme is inappropriate altogether. For some schemes, “inappropriate” means that a scheme is used in support of the wrong type of standpoint. Such schemes can only be applied in support of certain types of standpoints and not in support of others: for instance, pragmatic argumentation can be used to support a prescriptive standpoint (“X should be done, because X has desirable consequences”) but not a descriptive standpoint (“X is the case, because X has desirable consequences”). This is not the case for authority argumentation, however: it can be used to support all types of standpoints.

There are other ways in which an authority argument can be inappropriate, though. When the protagonist chooses authority argumentation while (s)he knows that the antagonist does not agree with the use of the scheme, the protagonist commits an argumentum ad verecundiam (van Eemeren & Grootendorst, 1992, p. 161). The antagonist might strongly believe that from the fact that an authority states something, one can never deduce with certainty that something is the case, while a protagonist may object that it is impossible to know everything oneself so that one sometimes has to trust in someone else’s authority and that an authority argument, although it does not yield certainty, does yield plausibility. The protagonist and the antagonist will then have to weigh the advantages and disadvantages of authority argumentation and make a common decision on whether or not to allow the use of the scheme in their discussion. If they cannot reach an agreement on whether or not the scheme can be used and the protagonist nonetheless advances an authority argument, the protagonist violates the Argument Scheme Rule by using an inappropriate argument scheme.

The use of an inappropriate authority scheme can also result in an ad populum fallacy. A protagonist may choose to appeal to the number of people who believe that something is the case as an authority: “X is good because everybody thinks it is good”. When the opinion of the multitude is inappropriately advanced as an argument, this means that the argument scheme of authority is inappropriately chosen. In such a case, an argumentum ad populum fallacy is committed, which is a variant of the argumentum ad verecundiam (van Eemeren & Grootendorst, 1992, p. 161). But, once more, it is up to the discussants to decide whether or not they will consider an appeal to the opinion of the multitude appropriate. When the discussants believe that a large number of people
believing X is a reliable indicator of X being acceptable, then they may allow the use of the scheme in their discussion. We might imagine, for instance, that the discussants allow appeals to the multitude in case they support a prescriptive standpoint: “This policy should be implemented, because a large number of citizens believe that it should”. If the discussants decide that such an appeal is appropriate, it will not be considered to be an argumentum ad populum when it is used in the discussion.

A different way in which an authority argument can violate the Argument Scheme Rule, besides being inappropriate, is being incorrectly applied. When an antagonist in principle approves of using authority argumentation, this does not mean that (s)he approves of all the ways in which it can be applied. An argument scheme can only be considered “correctly applied” if the critical questions pertaining to the argument scheme can be answered satisfactorily (van Eemeren & Grootendorst, 1992, p. 162). When the protagonist cannot satisfactorily answer the critical questions that the antagonist raises, when (s)he refuses to answer, or when (s)he prevents these questions from being raised, (s)he violates the pragma-dialectical Argument Scheme Rule (van Eemeren and Grootendorst, 2004, p. 172).23 The incorrect use of authority argumentation that consists of presenting someone as an authority while (s)he is in fact not – resulting in one or more critical questions not being satisfactorily answerable – is also called an ad verecundiam fallacy.24 In such a case the rule violation does not consist of an inappropriate choice of scheme, but of an incorrect application (van Eemeren & Grootendorst, 1992, p. 163). The next section will be devoted to the soundness conditions that can be used to determine whether authority argumentation is correctly applied.

3.3 Soundness conditions for Authority Argumentation

3.3.1 Critical Questions for Symptomatic Argumentation

In order to determine the critical questions that should be answered for the argument scheme of authority argumentation, I will start by looking at the critical questions that have been formulated for the symptomatic argument scheme in general – of which authority argumentation is a subtype. The pragma-dialectical literature originally started out with the following four critical questions for the symptomatic argument scheme:

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23 Although these three incorrect ways of reacting to critical questions are all considered to be violations of the Argument Scheme Rule, refusing to answer a critical question or preventing critical questions from being raised can simultaneously be regarded as violations of the Burden of Proof Rule, because in doing so, the protagonist fails to meet his or her obligation to defend. The soundness conditions that I establish in the remainder of the current chapter, however, are meant exclusively for determining whether the Argument Scheme Rule has been violated.

24 The term argumentum ad verecundiam is also used in literature to refer to another fallacy that violates the Burden of Proof Rule – evading the burden of proof by giving a personal guarantee for the acceptability of a standpoint. It also applies to a fallacy that violates the Relevance Rule by parading one’s own qualities instead of advancing argumentation. I will, however, not take these two ad verecundiam fallacies into consideration in establishing my soundness conditions in the current chapter, as they do not concern authority argumentation. In the current chapter, as was discussed above, I am only concerned with the conditions that determine when an authority argument violates the Argument Scheme Rule.
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Does Z really hold for X?
Is Y indeed symptomatic of Z?
Cannot Z have other characteristics as well?
Cannot Y be a characteristic of something else as well?
(van Eemeren & Grootendorst, 1992; van Eemeren, Grootendorst & Kruiger, 1984; 1986)

These critical questions, however, are not always applicable to all types of symptomatic arguments. As was discussed by Garssen (1997) in an elaboration of earlier theorizing by van Eemeren and Grootendorst, the critical questions that are relevant for a specific instantiation of the symptomatic argument scheme depend on the variant of symptomatic argumentation that an arguer uses. Symptomatic argumentation can be presented in two different manners: a variant where a characteristic is mentioned in the standpoint and a reverse variant where a characteristic is mentioned in the argument. Garssen states that only one critical question is relevant for all variants of symptomatic argumentation and that two other questions are only relevant in case a characteristic is mentioned in the argument.

Before moving on to the issue of which critical questions are relevant for which variant of symptomatic argumentation, I will illustrate the difference between these two variants by means of an invented example of a symptomatic argument. The variant of symptomatic argumentation where the characteristic is mentioned in the standpoint looks as follows:

This person (X) possesses medical knowledge (Y),
Because this person (X) is a doctor (Z)
And being a doctor (Z) indicates possessing medical knowledge (Y)

The variant of the scheme where the characteristic is in the argument, however, is “reversed”:

This person (X) is probably a doctor (Z)
Because this person (X) possesses medical knowledge (Y)
And being a doctor (Z) indicates possessing medical knowledge (Y)

An easy way of telling apart the two variants is that when the characteristic is mentioned in the argument, the reconstruction of the symptomatic argumentation should always

25 In later pragma-dialectical textbooks that were developed for teaching argumentation theory to students (van Eemeren, Grootendorst & Snoeck Henkemans, 1995; 2001; 2002; van Eemeren & Snoeck Henkemans, 2006), these critical questions were substituted by the following two: “Aren’t there also Y’s that do not have characteristic Z?” and “Aren’t there also non-Y’s that also have characteristic Z?”. Because the authors explained to me that this substitution was motivated by educational rather than theoretical purposes, I will not take these additional two questions into account here.

26 These variants had already been distinguished by van Eemeren and Grootendorst on earlier occasions, but had not yet been explicitly related to the different critical questions of symptomatic argumentation.
contain a word like “probably” or “most likely” in the standpoint, which is not the case for the variant where the characteristic is mentioned in the standpoint.\(^{27}\)

Having explained the difference between the two variants of symptomatic argumentation, I will now turn back to the critical questions for this argument scheme. A revised list of three critical questions for symptomatic argumentation appears in Garssen (1997):

Does property Z indeed indicate characteristic Y?
Is characteristic Y not also typical of something else (Z')?
Are there any other characteristics (Y') that X needs to have in order to be able to ascribe property Z to X?\(^{28}\)

The critical question that should be asked regarding both variants is the first one: “Does property Z indeed indicate characteristic Y?”. A possible response to such a critical question is a subordinative argument that proves that property Z is intrinsic to everything that has characteristic Y (Garssen 1997, p. 10).\(^{29}\) In case of our example “This person possesses medical knowledge, because he is a doctor”, the first critical question an antagonist should ask is “Does being a doctor indeed indicate possessing medical knowledge?”. In answering that question, the protagonist can support the unexpressed premise that possessing medical knowledge is typical of being a doctor with a subordinative argument that shows that possessing medical knowledge is really an intrinsic quality of doctors – such as the argument that all doctors have gone to medical school where they have acquired medical knowledge.

The second critical question, one that should only be asked if the characteristic is not mentioned in the standpoint but in the argument – the “probably” variant – is “Is characteristic Y not also typical of something else (Z')?”. For the example “This person is probably a doctor, because he possesses medical knowledge”, the second critical question translates as “Is possessing medical knowledge not also typical of something other than being a doctor?”. The third critical question of symptomatic argumentation should also

\(^{27}\) A hedging word such as “probably” is necessary in the characteristic-in-argument-variant because in symptomatic argumentation a property – such as “being a doctor” – is a broader category of which a characteristic – such as “possessing medical knowledge” – is a narrower sub-class: all doctors possess medical knowledge, but not all people possessing medical knowledge are doctors. Therefore, concluding that someone possesses medical knowledge (a characteristic) from the fact that he is a doctor (a property) – reasoning from the general to the specific – can be done with more certainty than concluding the reverse: that someone is a doctor (a property) because he possesses medical knowledge (a characteristic) – reasoning from the specific to the general. When one reasons from the specific to the general, the conclusion in the standpoint should always contain a hedging word such as “probably”.

\(^{28}\) While the original list, mentioned at the beginning of the current section, also contains a critical question regarding the propositional content of the symptomatic argument (“Does Z really hold for X?”), these three revised questions only relate to the justificatory force of the symptomatic argument – the certainty with which we can assume that the one thing indeed indicates the other. I will first determine which of these three revised questions regarding the justificatory force are relevant for authority argumentation, and then deal with the questions regarding the propositional content at the end of the current section.

\(^{29}\) The concept of possible responses to critical questions is relevant in light of prototypical argumentative patterns resulting from the anticipation of critical questions, which will be discussed in Section 3.5.
only be asked if the characteristic is mentioned in the argument and reads as follows: 
“Are there any other characteristics (Y’) that X needs to have in order to be able to ascribe 
property Z to X?”, which in our example translates as “Does this person not also necessarily 
have to have something other than just medical knowledge to make it plausible that he is 
a doctor?”. 

These three critical questions are represented by van Eemeren, Snoeck Henkemans 
and Houtlosser (2007) in a dialectical profile as possible moves, together with accepting 
the argument, that the antagonist can make as a follow-up of the protagonist advancing a 
symptomatic argument. However, the authors do not, as Garssen does, represent the latter 
two questions as only relevant for the particular variant of symptomatic argumentation 
where the characteristic is used in the argument. This has to do with the fact that, as the 
authors explain, van Eemeren, Snoeck Henkemans and Houtlosser (2007) consider the 
variant of symptomatic argumentation where the characteristic is in the argument – the 
“probably” variant – to be the prototypical form of symptomatic argumentation. In that 
prototypical variant, all three critical questions are relevant. 

I hold that authority argumentation is not of this prototypical variant, but always 
contains the characteristic in the standpoint rather than in the argument. An authority 
argument entails that X is an opinion in field F held by authority A and therefore X 
is acceptable – not that *X is acceptable, so it is probably an opinion in field F held by 
authority A. Therefore, only the first of the critical questions listed in Garssen (1997) and 
van Eemeren, Houtlosser and Snoeck Henkemans (2007) is relevant for evaluating the 
major premise of authority argumentation. This critical question raises doubt regarding 
the justificatory force of a symptomatic argument: it raises the issue of whether the 
argument can be really said to support the standpoint. 

Additionally, an antagonist can cast doubt on the propositional content of a 
symptomatic argument: the minor premise that Z really holds for X. The original list 
of critical questions for symptomatic argumentation that I quoted at the very beginning 
of the current section contains one critical question regarding this propositional 
content: “Does Z really hold for X?” (van Eemeren & Grootendorst, 1992; van Eemeren, 
Grootendorst & Kruiger, 1984; 1986). Although that question is absent from the revised 
list of critical questions discussed in Garssen (1997) and van Eemeren, Houtlosser, & 
Snoeck Henkemans (2007), this question is in fact relevant to both variants of the 
argument scheme: it can be raised regarding either variant’s minor premise.

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30 In the symptomatic variant where the characteristic is mentioned in the argument instead of in the 
standpoint, the question would have to be slightly rephrased as “Does Y really hold for X?” instead of “Does 
Z really hold for X?”.

31 Criticism regarding the propositional content of arguments does not technically fall under the 
intersubjective testing procedure in which the relationship between an argument and a standpoint is 
questioned. Although critical questions are generally understood to be part of this intersubjective testing 
procedure, critical questions regarding the propositional content of an argument must be seen as part of 
something else, namely: a sub-discussion in which the acceptability of the minor premise of an argument is 
put to the test. In such a sub-discussion, certain issues prototypically need to be raised in order to establish 
whether a certain type of minor premise is acceptable. Critical questions concerning the propositional 
content of an argument could be regarded as the prototypical (sub)standpoints of a sub-discussion regarding 
the minor premise of a particular argument scheme.
Some of the critical questions regarding authority argumentation that are discussed in the literature actually relate to the minor premise of the symptomatic argument scheme rather than the major premise: for instance, the critical question whether an authority is quoted correctly relates to the minor premise that X is indeed an opinion held by A. In order to characterize these critical questions for authority argumentation as further specifications of existing pragma-dialectical critical questions for symptomatic argumentation, it is necessary to start that specification not only from a critical question regarding the justificatory force of the symptomatic argument, but also from a question regarding the propositional content (the minor premise).

Therefore, I take two existing pragma-dialectical critical questions for symptomatic argumentation as my starting point for further specification: one concerning the propositional content (1), and one concerning the justificatory force of the symptomatic argument (2). They are the following:

1 Does property Z really hold for X?
2 Does property Z indeed indicate characteristic Y?

3.3.2 Main and Subordinate Critical Questions for Authority Argumentation

The two critical questions for symptomatic argumentation mentioned above can now be made more specific for the scheme of authority argumentation, which is a subtype of the symptomatic scheme. One can identify argument scheme A as a subtype of argument scheme B if it is necessary for an adequate evaluation of argument scheme A to ask critical questions that are a specification of the critical questions of argument scheme B, a subtype being a specific kind of application of a main type (Garssen 1997, p. 11). Specifying the symptomatic questions “Does property Z really hold for X?” and “Does property Z indeed indicate characteristic Y?” for authority argumentation, results in the following critical questions:

CQ 1 Is X really an opinion in field F held by authority A?
CQ 2 Does being an opinion in field F held by authority A indeed indicate acceptability?

Before these questions can be answered, it is first necessary for the discussants to resolve a number of underlying issues. These issues can be phrased as what I would like to dub “subordinate” critical questions that need to be answered before the “main” critical questions can be answered. The antagonist might wonder, for instance, whether A was quoted correctly. When one or more of these subordinate questions cannot be answered satisfactorily, that means that a particular main critical question cannot be answered satisfactorily. The remainder of the current section will be devoted to determining what these subordinate critical questions are, both regarding the propositional content and regarding the justificatory force of authority arguments.

The soundness conditions for authority argumentation have been discussed by authors such as Schellens (1985) and Walton (Walton, 1997; 2007; Walton, Reed & Macagno, 2008; Woods & Walton, 1989). Walton (1997), for instance, mentions five critical questions to evaluate an appeal to expert opinion, where source E asserts proposition A and E is an expert in subject domain S containing proposition A (p. 223): the Expertise
Question asking how credible E is as an expert source, the Field Question asking whether E is an expert in the field that A is in, the Opinion Question asking what E has exactly asserted that implies A, the Trustworthiness Question asking whether E is personally reliable as a source, and the Consistency Question asking whether A is consistent with what other experts assert.

Regarded from a pragma-dialectical perspective, some of Walton’s critical questions are not directly relevant. Whether A is consistent with what other experts assert, for instance, is something that lies outside the scope of the authority argument itself, since the unique character of an authority argument, compared to other symptomatic arguments, is exactly that one should believe something is the case purely because this particular authority has said so.

The fact that another authority has made a contradicting claim could of course be employed as a counter-argument against an authority argument in a mixed discussion – in the same vein that an argument such as “Clinical trials have not shown this drug to have any significant effects” could be employed as a counter-argument against the argumentation “You should ask your doctor for drug X, because authority A says that you should”. But the fact that something could be employed as a counter-argument does not make it a critical question: while a counter-argument could be any argument for the opposing standpoint, a critical question needs to actually have bearing on either the minor premise that X is an opinion in field F held by authority A, or on the major premise that the fact that X is an opinion in F by A is an indication that X is acceptable. Whether X is consistent with what other authorities assert does not directly question either of these premises.

The analytical difference between considerations such as Walton’s Consistency Question on the one hand, and critical questions in the pragma-dialectical sense on the other hand, can be further illustrated by looking at the argumentation structure that arises when a protagonist provides answers to these different kinds of questions. Because critical questions in the pragma-dialectical sense cast doubt on the acceptability of the major and minor premise of a certain argument, rather than testing whether the argument is considered sufficient support for the standpoint, answering these questions should result in subordinative argumentation that further supports the major or minor premise.

When a consideration such as Walton’s Consistency Question is addressed by a protagonist, this results in a coordinative argumentation structure: the argument “other experts agree with this claim as well” is added at the same hierarchical level as the original authority argument in such a way that it should be taken together with the original argument for an increased support of a standpoint. This is the case in the argumentation

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32 The pragma-dialectical argumentation theory distinguishes four main kinds of argumentation structures: single argumentation, multiple argumentation, coordinative argumentation and subordinative argumentation (van Eemeren & Grootendorst, 1992; Snoeck Henkemans, 1992).

33 Snoeck Henkemans (1992) discusses argumentation structures as resulting from responses to different kinds of criticism. When an antagonist criticizes the acceptability of an argument, the protagonist’s response results in a subordinative argumentation structure; when an antagonist expresses doubt concerning the sufficiency of an argument or puts forward a counter-argument, the protagonist’s response results in a coordinative argumentation structure (Snoeck Henkemans, 1992, p. 92).
“You should use drug X, because doctor Smith says that you should, AND what doctor Smith says is in line with what other doctors say”. When the protagonist addresses a critical question, however, this results in a subordinative argumentation structure: a satisfactory answer to a critical question, such as the question whether the authority is quoted correctly, is added as an argument in support of the minor or major premise of the authority argument. This is the case in the argumentation “You should use drug X, because doctor Smith says that you should, BECAUSE I heard him say so yesterday”. So while Walton’s consistency question is a request for additional coordinative argumentation alongside the authority argument, the subordinative critical questions that I present in the remainder of this section are requests for additional subordinative argumentation in support of the authority argument.

Additionally, to wonder whether E is personally reliable as a source (Walton’s Trustworthiness Question), taken separately from the Expertise Question of how credible E is as an expert source, also seems to go beyond the boundaries of the authority argument itself: if an expert appears to be personally less reliable, for instance, because he has cheated on his wife in the past, that does not mean that he cannot still be trusted regarding the subject matter of the particular opinion that is at issue in the authority argument.34

To ensure that all of the subordinate critical questions that I establish are indeed relevant from a pragma-dialectical perspective, I use the overview of soundness conditions for authority argumentation that is provided in van Eemeren (2010) as a basis. Van Eemeren provides a selection of soundness conditions for authority argumentation, combining conditions mentioned in pragma-dialectical literature with conditions from other theories. These conditions are the following: “that the authority referred to does indeed have the professed authority, that his authority is recognized as pertinent to the topic at issue in the difference of opinion, that the parties in the difference of opinion agree on appealing to the authority in the discussion, that the authority is quoted regarding a subject-matter within the area of his expertise, and that the authority is quoted correctly at a point where this is relevant” (van Eemeren, 2010, p. 203).

When we rephrase these conditions as questions, we can see that it is possible to regard four of them as critical questions that are subordinative to the main critical questions concerning authority argumentation (Figure 3.1):

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34 The situation would be different if E’s personal unreliability were in fact related to the expertise that is ascribed to him in the authority argument. If, for instance, a scientist has been exposed as a fraud and later this scientist’s expertise is appealed to in an authority argument concerning a scientific claim, then it makes sense to doubt this authority’s reliability. I believe, however, that such doubt would fall under Walton’s Expertise Question asking how credible E is as an expert source – corresponding to the question whether A indeed has the professed authority that is discussed below – without the need to separately question E’s personal reliability.
Experience-based Authority Argumentation in Direct-to-Consumer Medical Advertisements

CQ = main critical question
scq = subordinate critical question

Subordinative to CQ 1 “Is X really an opinion in field F held by authority A?”:

scq i: Is there no notable reason to assume that A is quoted incorrectly or out of context?
scq ii: Is there no notable reason to assume that A does not have the professed authority?

Subordinative to CQ 2 “Does being an opinion in field F held by authority A indeed indicate acceptability?”:

scq iii: Is there no notable reason to assume that the parties in the difference of opinion do not agree on appealing to A?
scq iv: Is there no notable reason to assume that A’s authority is not recognized by the discussion parties as pertinent to the topic at issue in the difference of opinion?

Figure 3.1. Main and subordinate critical questions for authority argumentation.

As can be seen in Figure 3.1, I have chosen to formulate the subordinate critical questions in such a way that they all contain the words “is there no notable reason to assume”. That choice was based on the following. Critical questions are dialectical in nature: they are used by the discussants themselves in order to resolve their difference of opinion. The two main critical questions (CQ) can be used by the discussants to determine whether an argument is sound, and the subordinate critical questions (scq) can be used by the discussants in order to determine whether the main critical questions can be answered satisfactorily. If the subordinate critical questions would be formulated in a more “black and white” manner – for instance: “Is A quoted correctly?” or “does A have the professed authority?” – then discussants would be required to conduct an extensive study of empirical reality in order to be able to properly answer these questions. In actual discussions, however, this is not what we expect discussants to do. To answer the main critical questions, discussants can be expected to try and think of any notable indications they may have that a main critical question should in fact be answered unsatisfactorily. In absence of such clues, they may assume a main critical question to be satisfactorily answerable.

My formulation of the subordinate critical questions with the words “is there no notable reason to assume” reflects this dialectical process. When one or more of the subordinate questions cannot be answered satisfactorily – meaning: that there is indeed a notable indication for the discussants that something is wrong – this entails that the corresponding main critical question cannot be answered satisfactorily either.
If all subordinate critical questions can be answered satisfactorily, however – meaning that there are no notable indications that there is a problem – then the corresponding main critical question can only be assumed to be satisfactorily answerable, in absence of evidence of the contrary. Such an assumption can never be made with a one hundred percent certainty: there might be problems with a particular authority that the discussants are not aware of. That a satisfactory answer to a main critical question is defeasible in nature is in line with the dialectical function of these critical questions: they are tools for discussants, rather than logical safeguards.

The negative formulation of the subordinate critical questions – “is there no notable reason” rather than “is there a notable reason” – was chosen to ensure that the answer “yes” is always the satisfactory answer to a critical question, while the answer “no” is always the unsatisfactory answer, in line with the main critical questions.

The questions “Is there no notable reason to assume that A is quoted incorrectly or out of context?” and “Is there no notable reason to assume that A does not have the professed authority?” can be seen as subordinative to the first main critical question, because answering them with “no” would counter the statement that X is in fact an opinion in field F held by authority A. If A is quoted incorrectly or out of context, then X is (in its represented form) in fact not an opinion that can be attributed to A, and if A does not have the professed authority, then X cannot be attributed to authority A.

The question “Is there no notable reason to assume that the parties in the difference of opinion do not agree on appealing to A?” is subordinative to the second main critical question, because its unsatisfactory answer would counter the symptomatic relation that being an opinion in field F held by authority A indicates acceptability. If the parties do not both agree on appealing to A, then the protagonist is not allowed to argue that the fact that A is of a certain opinion indicates acceptability. On a lower level, the question “Is there no notable reason to assume that A’s authority is not recognized by the discussion parties as pertinent to the topic at issue in the difference of opinion?” is in itself subordinative to the question concerning agreement about A between the discussion parties: if A’s authority is not regarded by (one of) the discussion parties as relevant to the topic that is under discussion, then that is in fact a reason to assume that the discussion parties do not agree on appealing to A, which means that in that particular discussion it cannot reasonably be claimed that A being of a certain opinion indicates that opinion’s acceptability.

Now that these four conditions have been rephrased into subordinate critical questions, one more condition from van Eemeren’s list remains: that the authority is quoted regarding a subject-matter within the area of his or her expertise. This condition does not have to be reformulated as a subordinate critical question, but is in fact already

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35 Prototypical satisfactory answers to these critical questions – expressing that there indeed is no notable reason to assume that there indeed is something amiss – will be discussed in Section 3.5, when I discuss prototypical argumentative patterns as resulting from responses to anticipated criticism.

36 I rephrased van Eemeren’s condition of “…quoted correctly at a point where this is relevant” as “…no notable reason to assume that A is quoted incorrectly or out of context”. “Out of context” here can refer either to only showing a partial quote while another part of the original quote presents an entirely different opinion, or to quoting a superseded view out of an old source of which it is clear that A no longer supports it.
incorporated in the first main critical question: “Is X really an opinion in field F held by authority A?” That X is an opinion in field F held by authority A automatically entails that A is quoted regarding a subject-matter in the area of his or her expertise – namely: a subject-matter in field F.

The list of two main critical questions and four subordinate critical questions in Figure 3.1 is context-independent, referring to all kinds of authority argumentation in all kinds of communicative activity types. However, as van Eemeren (2010, p. 204) explains, such context-independent soundness conditions can be made more specific for a particular communicative activity type: “specific soundness conditions indicate how general soundness conditions need to be interpreted, amended or supplemented in the macro-context of a specific communicative activity type”. Such a specification does not always literally entail a more specific formulation of the general soundness conditions. Rather, when specifying soundness conditions for a particular communicative activity type, the goal is to capture the idea behind the original conditions, and to refine that idea for a particular context. Sometimes, this means a more precise expression of a certain condition, but sometimes it may also be necessary to add a soundness condition, when that condition is not applicable to all contexts but only relevant in a particular communicative activity type.

Van Eemeren provides an example concerning two people playing a game of Scrabble and disagreeing about whether the letters that one of them just laid out actually constitute an English word. The player who has laid out these letters makes the following claim: “This is an English word, because it is in the dictionary”. The soundness of that authority argument depends on the starting points the discussion parties have agreed upon in the opening stage. When the discussants have (1) agreed beforehand that an appeal to the dictionary is legitimate, or when they (2) agree to its legitimacy in the second instance, no fallacy is in principle committed in appealing to the authority. But if they agreed that something would only count as a word if its meaning is known to both players and that they would not use a dictionary, then appealing to the dictionary counts as an argumentum ad verecundiam. When nothing has been agreed about this (3), no rule has as yet been violated by appealing to the dictionary, but the use of the authority may introduce a new (sub)discussion concerning the authority’s legitimacy.

In many cases, however, it is not so much a matter of an explicit agreement between the two discussion parties which authorities are legitimate and which are not, but an agreement that is institutionally determined in a particular communicative activity type (van Eemeren 2010, p. 206). In the Scrabble example: if the rules of the game would mention that a word counts as an English word when it is listed in a specific dictionary, then the two players could be said to have implicitly agreed to the legitimacy of this authority by partaking in the game.

In order to provide specific soundness conditions for experience-based authority argumentation in DTC medical advertisements, I will now refine the aforementioned main and subordinate critical questions for authority argumentation in accordance with the particular characteristics of experience-based authority argumentation in the context of a DTC medical advertisement. This refinement requires two types of specifications, which will be implemented simultaneously: a specification for the variety “experience-
based authority argumentation”, and a specification for the context of DTC medical advertisements.

The schematic representation of authority argumentation in Section 3.2, as well as the general soundness conditions discussed in the current section, apply to all varieties of authority argumentation, including, for instance, expertise-based authority argumentation and institution-based authority argumentation. Starting from Section 3.4, however, in specifying the soundness conditions of authority argumentation, I will restrict myself to only one variety of authority argumentation: experience-based authority argumentation. The soundness conditions for authority argumentation discussed in the current section can be interpreted in slightly different ways for each different variety of the argument scheme, because a different reason for granting credibility to an authority in the field that is at stake might call for a different nuance in the interpretation or specification of soundness conditions. This means that the soundness conditions that I will specify in the next section do not apply, for instance, to appeals to the expertise of doctors in DTC medical ads, but only to appeals to authority concerning personal experience. To clarify the typology I employ for argument schemes, subtypes and varieties, I include a schematic representation of this typology in Figure 3.2. The main argument scheme under consideration is symptomatic argumentation, of which authority argumentation is a subtype. That subtype can occur in different varieties, of which experience-based authority argumentation is the variety I focus on.

![Figure 3.2. Experience-based authority argumentation in a typology of argument schemes, subtypes and varieties.](image-url)
3.4 Soundness Conditions for Experience-based Authority Argumentation in Direct-to-Consumer Medical Advertisements

The two main critical questions for authority argumentation, “Is X really an opinion in field F held by authority A?” and “Does being an opinion in field F held by authority A indeed indicate acceptability?”, can be specified for my particular variety and my particular argumentative activity type by supplementing the type of authority and field that are at stake in my particular context, and the kind of statement (X) that the discussion is about. The type of authority is an endorser, the field consists of medical products that the endorser has positive experiences with, and the statement at issue is formed by the propositional content of the main pragmatic argument that is prototypically advanced in DTC medical ads: that using the advertised drug has a certain desirable consequence (see Chapter 2). The two main critical questions can therefore be specified as follows for experience-based authority argumentation in DTC medical advertisements:

CQ 1: Is the statement that using drug X has desirable consequence C really an opinion in the field “medical products that E has positive experiences with” held by endorser E?

CQ 2: Does being an opinion in the field “medical products that E has positive experiences with” held by endorser E indeed indicate acceptability?

In order to refine the subordinate critical questions of authority argumentation for experience-based authority arguments in DTC medical advertisements, I will consider the legal rules and guidelines that govern the use of endorsements in this particular institutional context. The first subordinate critical question (scq) for authority argumentation concerns A being quoted correctly. In the US Code of Federal Regulations (CFR), the following text stipulates a requirement of correct quotation concerning endorsements in advertising in general:

The endorsement message need not be phrased in the exact words of the endorser, unless the advertisement affirmatively so represents. However, the endorsement may not be presented out of context or reworded so as to distort in any way the endorser’s opinion or experience with the product. An advertiser may use an endorsement of an expert or celebrity only so long as it has good reason to believe that the endorser continues to subscribe to the views presented.

16 CFR 2.255.1(b)

Furthermore, the section of the CFR that is dedicated to DTC prescription drug advertisements in particular also requires a correct quotation. Section §202.1 (6) of the CFR stipulates two rules that prohibit providing a misleadingly selective account of an authority’s claim. Two ways to provide such a misleadingly selective account are quoting a superseded view (6.viii), and leaving out a relevant context (6.ix):
Chapter 3

An advertisement for a prescription drug is (...) misleading (...) if it:

Uses a statement by a recognized authority that is apparently favorable about a drug but fails to refer to concurrent or more recent unfavorable data or statements from the same authority on the same subject or subjects (CFR 21.CF.202.1.6.viii)

Uses a quote or paraphrase out of context to convey a false or misleading idea (CFR 21.CF.202.1.6.ix)

When an advertiser chooses to use an authority argument, therefore, (s)he needs to make sure that (1) (s)he only selects claims that are at that moment still supported by the authority (s)he refers to – in order not to quote a superseded view, and that (2) (s)he quotes these claims within the correct context – in order not to leave out a relevant context.

These legal requirements of not rewording a quote in such a way that someone’s opinion is incorrectly represented, and not quoting superseded views, are reflected in the first subordinate critical question for authority argumentation in general: whether there is no notable reason to assume that an authority has been quoted incorrectly or out of context. By raising this subordinate question, the possible violation of the legal rules represented above can be investigated. The institutional pre-conditions of the communicative activity type therefore do not call for a more refined formulation of this particular subordinate critical question in order for it to be of use in this particular context, except by substituting the “E” of “endorser” for the “A” of “authority”. It can therefore be phrased as:

scq i: Is there no notable reason to assume that E has been quoted incorrectly or out of context?

The other subordinate critical questions, on the other hand, do require a further specification for the evaluation of experience-based authority arguments in the communicative activity type of DTC medical advertisements. Without such a specification, it is not clear what terms like “the professed authority” refer to in this particular context.

“Endorsers by experience” cannot be considered medical experts in the sense of possessing medical knowledge about the different ways to treat a particular medical problem. They can, however, be considered authorities in a different sense: they are users of a drug and can endorse the drug because they know it is effective, based on their personal experience with it. There are several rules in the CFR that require such personal experience to be genuine. From the part of the CFR referring to advertising in general, the following three rules are relevant in this respect:

37 As I explained in the previous section, I consider quoting a superseded view as quoting something out of context: A quote from the context of an old report or statement that an authority no longer supports, is represented in the context of a new advertisement as if it were A’s current opinion.
Endorsements must reflect the honest opinions, findings, beliefs, or experience of the endorser. Furthermore, an endorsement may not convey any express or implied representation that would be deceptive if made directly by the advertiser.

16 CFR IB.255.1(a)

When the advertisement represents that the endorser uses the endorsed product, the endorser must have been a bona fide user of it at the time the endorsement was given. Additionally, the advertiser may continue to run the advertisement only so long as it has good reason to believe that the endorser remains a bona fide user of the product.

16 CFR IB.255.1(c)

Advertisements presenting endorsements by what are represented, directly or by implication, to be “actual consumers” should utilize actual consumers (…) or clearly and conspicuously disclose that the persons in such advertisements are not actual consumers of the advertised product.

16 CFR IB.255.2(c)

Furthermore, with respect to celebrity endorsers in prescription drug ads, one of the 18 “guiding principles” that was drawn up by the industry itself, represented by PhRMA (Pharmaceutical Research and Manufacturers of America), reads as follows:

Where a DTC television or print advertisement features a celebrity endorser, the endorsements should accurately reflect the opinions, findings, beliefs or experience of the endorser. Companies should maintain verification of the basis of any actual or implied endorsements made by the celebrity endorser in the DTC advertisement, including whether the endorser is or has been a user of the product if applicable.

(Principle 11, Pharmaceutical Research and Manufacturers of America, 2008, p. 6)

All of these rules reflect the idea that an endorser should be a real user of the advertised product at the time an ad is run. In the context of a DTC medical ad, that means that in order for the endorser’s testimonial about the product to be acceptable, the endorser needs to have experienced the desirable consequence that the drug is advertised to have – the drug needs to have actually treated or alleviated a medical problem for him or her. The subordinate critical question “Is there no notable reason to assume that A does not have the professed authority?” can therefore be specified as follows for experience-based authority arguments in DTC medical advertisements:

**scq ii:** Is there no notable reason to assume that E did not actually experience desirable consequence C of drug X?

On a lower level – subordinative to the question about having experienced the drug’s desirable consequence that was just discussed – an extra question should be included that is not present in the soundness conditions for authority argumentation in general. The following subordinate critical question may not always be relevant for all varieties of authority argumentation, but is particularly important for endorsements in advertising:
scq iii: Is there no notable reason to assume that \( E \) only claims that drug X has desirable consequence C because (s)he profits from claiming this?\(^3\)

This question is based on one of the critical questions from Walton’s (2007) argument scheme of Argument from Witness Testimony, a question that I do deem relevant from a dialectical perspective: the issue of the authority being biased, or having an ulterior motive. When the authority is being paid to appear in an advertisement – which, for instance, is typically the case when the authority is a celebrity endorsing the advertised drug – there is reason to suspect (s)he might be claiming something other than (s)he would have claimed had (s)he not been paid to do so. If \( E \) would in fact only have made a certain claim because (s)he profits from it, then that would mean that his or her claim was not based on his or her real experience with the drug, and therefore would not belong to the field “medical products that \( E \) has positive experiences with”.

Note that the word “only” is crucial here: it could of course be the case that someone is compensated for his or her endorsement of a drug, but that there is reason to assume that (s)he would still make the same claim about this drug if (s)he were not compensated. Such a reason could be, for instance, that the reader knows that the same person also endorsed the drug on an earlier occasion when (s)he was not yet compensated for this. A reader may also have reason to believe that the endorser is so trustworthy that payment by the advertiser would not alter his or her endorsement. In absence of such other indications, however, the fact that an endorser is compensated can be interpreted by the reader as a possible reason to assume that \( E \) only makes this claim about the advertised drug because (s)he profits from it.

Although the legal rules do not require an endorsement to be unpaid, the section of the CFR referring to advertisements in general does acknowledge the fact that being compensated for an endorsement makes the endorsement less credible, and therefore requires advertisers to disclose whether someone is compensated in cases where this is not immediately clear to the reader:

> When there exists a connection between the endorser and the seller of the advertised product that might materially affect the weight or credibility of the endorsement (i.e., the connection is not reasonably expected by the audience), such connection must be fully disclosed.
> 16 CFR IB.255.5

In the examples accompanying the above article 255.5 in the CFR, it is explained that the requirement for disclosing that someone was compensated only holds for endorsers of whom consumers generally do not expect that they are compensated for their endorsements. When celebrity endorsers are used, it is assumed that most consumers will know that celebrities are compensated for their appearance in advertisements, so in these cases it is not required for advertisers to disclose that they are.

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38 Note that in this particular subordinative critical question, I speak of \( E \) claiming something instead of \( E \) holding a certain opinion. When the only reason for \( E \) claiming something is that \( E \) profits from this, then \( E \)’s claim in fact does not reflect an actual opinion held by \( E \).
The next subordinate critical question for authority argumentation, “Is there no notable reason to assume that the parties in the difference of opinion do not agree on appealing to A?”, revolves around a sub-discussion between the two discussion parties regarding the appropriateness of a certain authority. The advertising format, however, always entails an implicit discussion in which the antagonist’s role is represented by the critical reaction that the advertiser anticipates a consumer to have. Because of this implicitness, the advertiser will have to anticipate the criticisms that his or her target audience might have in a sub-discussion about the appropriateness of a certain authority in order to assure that a reader can be reasonably expected to agree with the use of a particular authority.

If the reader cannot be reasonably expected to agree with the use of a particular authority after seeing the advertiser’s reaction to anticipated criticisms, then it is not reasonable for the advertiser to appeal to that authority. Therefore, for experience-based authority argumentation in DTC medical ads the subordinate critical question “Is there no notable reason to assume that the parties in the difference of opinion do not agree on appealing to A?” can be specified as follows:

scq iv: Is there no notable reason to assume that readers cannot reasonably be expected to deem E appropriate as an authority?

The final subordinate critical question for authority argumentation in general, which is in itself subordinate to the question that was just discussed about the discussion parties agreeing on the authority, is “Is there no notable reason to assume that A’s authority is not recognized by the discussion parties as pertinent to the topic at issue in the difference of opinion?”. To refine that subordinate critical question for experience-based authority argumentation in DTC medical ads, we have to specify what could be a typical reason in this context for a discussion party not to deem an endorser’s authority relevant to the topic that is under discussion.

A particular characteristic of experience-based authority argumentation is that an endorser is only an authority concerning his or her own experience; so if the (sub)standpoint at issue does not concern the endorser’s personal experience, then the endorser’s authority is not relevant. Govier (2014) – albeit in the very different context of argumentation concerning victimhood, regarding the question whether a victim’s personal experience grants him or her any authority concerning the crime that was committed – also discusses this limitation of experience-based authority:

... [T]he raw edge of sensation – knowing what it is like in a metaphysically unique sense – is a narrow edge indeed. The fact that a victim has unique and privileged access to her own consciousness while experiencing suffering does not appear to establish her authority on any moral or policy matter that extends beyond the privacy of consciousness. (…) On all these topics private experiences cannot establish knowledge or good judgment. Scientific evidence, discussion, criticism, and debate are appropriate. Victims will not necessarily know better than others what are the answers to relevant practical questions.

(Govier, 2014, p. 80)
In a somewhat related vein, we may say that in DTC medical ads, “endorsers by experience” will not necessarily know better than others whether the reader of the ad should actually use the advertised drug. Such endorsers have epistemic authority concerning their own experience with a drug, but this authority does not extend beyond that experience to more general claims concerning the drug. One reason that a reader could have for not deeming an experienced endorser’s authority relevant to the discussion at hand could be that this experience cannot be considered representative. An endorsement by an experienced user is only relevant to the (sub)standpoint at issue if the endorser’s positive experience with the advertised drug actually indicates that the drug will be effective for the general user of the product, or in other words: if it is a representative experience.

The legal rules require endorsements in advertising to be representative, or if they are not, to disclose this fact clearly. The applicable legal requirement in the section of the CFR for advertisements in general is as follows:

An advertisement containing an endorsement relating to the experience of one or more consumers on a central or key attribute of the product or service also will likely be interpreted as representing that the endorser’s experience is representative of what consumers will generally achieve with the advertised product or service in actual, albeit variable, conditions of use. Therefore, an advertiser should possess and rely upon adequate substantiation for this representation. If the advertiser does not have substantiation that the endorser’s experience is representative of what consumers will generally achieve, the advertisement should clearly and conspicuously disclose the generally expected performance in the depicted circumstances, and the advertiser must possess and rely on adequate substantiation for that representation.

16 CFR IB.255.2(b)

This requirement states that either the endorser’s experience is representative for the consumer’s experience, which would be in line with how consumers are likely to interpret the advertisement, or, if it is not representative, that the advertiser should describe the results that a consumer can actually expect. As was the case with the requirement regarding endorsers being compensated for their appearance in ads, rule 255.2(b) above does not actually require endorsements to be representative, but does acknowledge the fact that they will most likely be interpreted as such and therefore requires advertisers to say so when endorsers are not representative. Because this rule acknowledges the fact that consumers will generally interpret endorsements to be representative, I believe that an endorser not being representative can be interpreted as one of the reasons a discussion party may have for not deeming someone an appropriate authority. For this reason, the subordinate critical question “Is A’s authority recognized as pertinent to the topic at issue in the difference of opinion?”, can be specified as follows:

scq v: Is E’s experience with drug X representative of the experiences that the targeted users generally will have with X?

That one of the subordinate critical question revolves around representativeness is an indication that endorsements in DTC medical ads, besides being authority arguments, on a lower level borrow certain aspects from a different argument scheme, namely
argumentation by example. In an argument by example – another subtype of the symptomatic argument scheme – a generalization is made by presenting one or more examples as indicative of something more general. Such an argument has to be evaluated by establishing whether the example is representative and whether it is sufficient to justify the generalization that was made.

Because an endorsement always revolves around a quote, from a source that is made to look credible, and the credibility of that source is crucial for the acceptability of the endorser’s claim, I interpret the endorsements to be a type of authority argumentation on the main level, rather than an argument by example. But on a subordinate level, when it comes down to the reasons for discussants to deem the endorser an appropriate authority, endorsements have certain aspects in common with arguments by example.39

An overview of the main and subordinate critical questions concerning experience-based authority argumentation in DTC medical advertisements is provided in Figure 3.3.

39 Another possibility, which I have not pursued in this dissertation, would have been to interpret endorsements as argumentation by example on the main level. The most important reason for me not to interpret endorsements as arguments by example on the main level, is that the legal rules for endorsements in advertising show a considerable correspondence with the soundness conditions for authority argumentation that were discussed by van Eemeren (2010). The requirement of correct quotation, the requirement that endorsements should reflect endorsers’ actual opinions, and the acknowledgment that a material connection between the advertiser and the endorser could affect the credibility of the endorsement (which could be a reason for the discussion parties not to agree on the appropriateness of the authority), could not so easily be interpreted in terms of soundness conditions for the argument by example.
CQ = Main Critical Question  
scq = subordinate critical question  

CQ 1: Is the statement that using drug X has desirable consequence C really an opinion in the field “medical products that E has positive experiences with” held by endorser E?

   scq i: Is there no notable reason to assume that E has been quoted incorrectly or out of context?  
   scq ii: Is there no notable reason to assume that E did not actually experience desirable consequence C of drug X?  
       scq iii: Is there no notable reason to assume that E only claims that drug X has desirable consequence C because (s)he profits from claiming this?

CQ 2: Does being an opinion in the field “medical products that E has positive experiences with” held by endorser E indeed indicate acceptability?

   scq iv: Is there no notable reason to assume that readers cannot reasonably be expected to deem E appropriate as an authority?  
   scq v: Is there no notable reason to assume that E’s experience with drug X is not representative of the experiences that targeted users generally will have with X?

Figure 3.3. Main and subordinate critical questions for experience-based authority argumentation in the communicative activity type of direct-to-consumer medical advertisements.

As a final note on these soundness conditions, I wish to emphasize that I do not claim that answering all subordinate critical questions would automatically entail an answer to a main critical question. It is not my goal to come up with a list of all possible questions that are subordinate to the two main critical questions “Is X really an opinion in field F held by endorser E?” and “Does being an opinion in field F held by endorser E indeed indicate acceptability?”. As was mentioned before, when one or more of the subordinate questions cannot be answered satisfactorily, that means that a particular main critical question cannot be answered satisfactorily. But when all subordinate questions have been answered satisfactorily, this can only be seen as an indication that the main critical questions can be answered satisfactorily as well, not as a certainty. Additional subordinate questions might be added to the list in specific circumstances, and the chance that one of those additional subordinate questions cannot be answered satisfactorily makes it impossible to regard the current set of questions as sufficient. Based on the answers to these subordinate critical questions, an antagonist can decide whether (s)he believes those answers to be enough to support satisfactory answers to the main critical questions for authority argumentation, or whether (s)he requires additional support.
It is important to realize that it is always up to the discussants to decide whether they wish to raise particular subordinate critical questions or not. If they raise these questions, then an unsatisfactory answer should lead to an evaluation of the argument as unreasonable, but if both discussants consider one of the subordinate questions unimportant and do not wish to raise it, then nothing obliges them to do so. In implicit discussions, however, the protagonist cannot know for sure which issues will be deemed important by the antagonist. (S)he therefore has to anticipate the (subordinate) critical questions that the antagonist can reasonably be expected to raise.

Because the subordinate critical questions for experience-based authority argumentation in DTC medical ads discussed above are based on the legal requirements that an advertiser should fulfill, I interpret them as the typical issues that a protagonist may expect his or her antagonist to find important in this context. To resolve the difference of opinion with that antagonist in a reasonable manner, an advertiser should therefore make sure that these subordinate critical questions are satisfactorily answerable. When an advertiser uses an argument knowing that one of the critical questions cannot be answered satisfactorily, this is to be considered unreasonable. It can be seen as the equivalent of a refusal to withdraw an argument in an explicit discussion after it has been proven to be unacceptable for an antagonist.

3.5 A Prototypical Argumentative Pattern reflecting the Soundness Conditions for Experience-based Authority Argumentation

To explain the way in which a protagonist can anticipate the aforementioned subordinate critical questions by addressing them in his or her argumentation, I will make use of the pragma-dialectical concept of prototypical argumentative patterns (van Eemeren & Garssen, 2014a; 2014b; 2015; van Eemeren, Garssen, Krabbe, Snoeck Henkemans, Verheij & Wagemans, 2014). Such patterns consist of the “specific kinds of critical reactions (that) may be expected to be raised (...) and are therefore likely to be anticipated in the argumentative moves that are made” (van Eemeren & Garssen, 2014b, p. 7). When a protagonist reacts to anticipated critical questions regarding his or her application of an argument scheme, a pattern of argumentative moves will come into being that is characterized by a specific constellation of argument schemes and argumentation structures, in support of a specific type of standpoint (van Eemeren & Garssen, 2014b, p. 7). In argumentative practice, the use of an authority argument is always embedded in such an argumentative pattern, a pattern that will differ according to the institutional constraints of the communicative activity type in which it occurs. An argumentative pattern can be called prototypical when it is directly related to the institutional pre-conditions of an argumentative activity type. Such a prototypical argumentative pattern is activated to realize a particular institutional point in accordance with those institutional pre-conditions.

In Figure 3.4, I present the part of the prototypical argumentative pattern of a DTC medical advertisement in which experience-based authority argumentation is dominant. The figure does not cover the entire argumentation structure of a DTC medical advertisement, but is limited to the part that relates to experience-based
authority argumentation: it only features the use of other argument schemes insofar as they are supported by, or further support, an experience-based authority argument. In the reconstruction of an actual advertisement the implicit parts of the argumentation structure will be placed between parentheses, but in this prototypical argumentative pattern, all argumentation is represented explicitly.

1 Suitable patients should use drug X

1.1 Using X has desirable consequence C that X will cure or alleviate the patient’s medical problem

1.1.1a That using X has desirable consequence C is an opinion in field F, “medical products that E has positive experiences with”, held by endorser E

1.1.1a.1a That using X has desirable consequence C is an accurate representation of E’s current opinion [= there is no notable reason to assume that E is quoted incorrectly or out of context]

1.1.1a.1b E’s opinion is based on E’s personal experience with desirable consequence C of drug X [= there is no notable reason to assume that E has not experienced desirable consequence C of drug X]

1.1.1a.1b.1 There is no notable reason to assume that E only claims that drug X has desirable consequence C because (s)he profits from claiming this

1.1.1a’ Being an opinion in field F held by endorser E indicates acceptability

1.1.1a’1 E is an appropriate authority [= there is no notable reason to assume that readers cannot reasonably be expected to deem E appropriate as an authority]

[1.1.1b – 1.1.1n: One or more coordinative argument(s) other than experience-based authority argumentation need to be available to be provided upon request]

Figure 3.4. Experience-based authority argumentation in a prototypical argumentative pattern of direct-to-consumer medical advertisements.

The pattern in Figure 3.4 is motivated by the institutional pre-conditions of the communicative activity type of DTC medical advertisements (discussed in Chapter 2),
including the formulation of the prescriptive standpoint that suitable patients should use drug X. These institutional pre-conditions also include the prototypical use of pragmatic argumentation on the main level: in order to support the prescriptive standpoint that a patient should use a drug, advertisers typically claim that a drug has the desirable consequence that it cures or alleviates the patient's medical problem. When an experience-based authority argument is employed in a DTC medical ad, it is typically advanced as a support of that pragmatic argument.

Furthermore, it is legally required that the contents of endorsements about the performance of an advertised product should be backed by adequate substantiation. Only using an endorsement is not enough to substantiate a product's performance when asked to do so by the Federal Trade Commission. The section of the CFR that refers to advertising in general includes the following rule:

An advertisement employing endorsements by one or more consumers about the performance of an advertised product or service will be interpreted as representing that the product or service is effective for the purpose depicted in the advertisement. Therefore, the advertiser must possess and rely upon adequate substantiation, including, when appropriate, competent and reliable scientific evidence, to support such claims made through endorsements in the same manner the advertiser would be required to do if it had made the representation directly, i.e., without using endorsements. Consumer endorsements themselves are not competent and reliable scientific evidence.

16 CFR IB.255.2(a)

This legal requirement is reflected in the prototypical argumentative pattern as follows: at least one other coordinative argument, which cannot be an experience-based authority argument, should be available to be provided next to 1.1.1a to back up the fact that using drug X has the desirable consequence that it will cure or alleviate the patient's medical problem. That argument need not necessarily be provided in the advertisement itself, but the advertiser must “possess and rely upon” it. This requirement is expressed at the bottom of the pattern.

The pragmatic argument 1.1 can be supplemented with other pragmatic arguments concerning other desirable consequences or with symptomatic arguments concerning particular qualities of the drug. Any of those can, in turn, also be supported by an experience-based authority argument. The pattern in Figure 3.4 covers the experience-based authority argumentation (1.1.1a and 1.1.1a’) in support of one main pragmatic argument (1.1), but in the reconstruction of an actual DTC medical advertisement, the pattern can be repeated for all other experience-based authority arguments.

Additionally, the pattern is based on prototypical satisfactory answers to the critical questions specified in the previous section. The minor and major premises of the authority argument (1.1.1a and 1.1.1a’) consist of prototypical satisfactory answers to the two main critical questions. A satisfactory answer to the question whether there is no notable reason to assume that the authority is quoted incorrectly or out of context (1.1.1a.1a): “That using X has desirable consequence C is an accurate representation of E’s current opinion”, in turn, can be employed in support of the minor premise. If E would be quoted incorrectly, or if the relevant context of the quote would be left out, or a statement
would be quoted that E made a long time ago but that (s)he no longer supports, then the quote would not be an accurate representation of E’s current opinion, which would mean that the minor premise – that using X has desirable consequence C is an opinion in the field “medical products that E has positive experiences with” held by E (1.1.1a) – would not hold. If, however, it can be claimed that the statement that using X has desirable consequence C is indeed an accurate representation of E’s current opinion – as is stated in argument 1.1.1a.1a – then this means that there are no notable reasons to assume that E is quoted incorrectly or out of context.

The second argument supporting the minor premise is a prototypical satisfactory answer to the subordinate critical question concerning there being no notable reason to assume that E has in fact not experienced the drug’s desirable consequence: “E’s opinion is based on E’s personal experience with desirable consequence C of drug X” (1.1.1a.1b). If E would not have personally experienced this desirable consequence, then E’s opinion would in fact not belong to the field “medical products that E has positive experiences with”, which would counter the minor premise (1.1.1a). If, on the other hand, it can indeed be claimed that E’s opinion is based on his or her personal experience with the desirable consequences of the drug, then that means that there are no notable reasons to assume that E has not experienced the drug’s effectiveness.

Supporting that prototypical satisfactory answer (1.1.1a.1b) is the argument that “There is no notable reason to assume that E only claims that drug X has desirable consequence C because (s)he profits from claiming this” (1.1.1a.1b.1), which is a satisfactory answer to the corresponding subordinate critical question. As was stated in the previous section, if E would in fact only have made that claim because (s)he profits from it, then that would mean that his or her claim was not based on his or her real experience with the drug, and therefore would not belong to the field “medical products that E has positive experiences with”.

That there is no notable reason to assume that E only claims something because (s)he profits from this, can easily be argued in cases where E does not profit from appearing in the ad, such as when an endorser’s statement is quoted from a letter that (s)he has spontaneously sent to the pharmaceutical company, writing to the company about how satisfied (s)he is with their drug. In cases where the endorser was indeed not paid for his or her appearance in an ad, this particular slot in the pattern might be filled with the argument “E is not compensated for claiming that X has desirable consequence C”. Such information is usually stated in the small print at the bottom of the advertisement, although it is only legally required to disclose that an endorser is compensated, not that (s)he is not. It is, however, not dialectically required that the endorser does not profit: what is required in the soundness conditions is that being paid should not be the only reason for an authority’s claim. Celebrity endorsers, a type of endorsers commonly featured in advertisements, are almost always paid for their appearance in an ad, but that fact does not necessarily make the corresponding authority argument unreasonable. In such cases, the advertiser has to find another way to substantiate that being paid is not the endorser’s only reason for endorsing the drug. For this reason, I chose not to include “E is not compensated for claiming that drug X has desirable consequence C” in the pattern as the prototypical answer to this particular critical question, but to include the more general
answer “There is no notable reason to assume that E only claims that drug X has desirable consequence C because (s)he profits from claiming this”.

Moving on to the major premise (1.1.1a) – that being an opinion in field F held by endorser E indicates acceptability: this major premise is supported by a prototypical satisfactory answer to the question whether there is no notable reason to assume that readers cannot reasonably be expected to deem E appropriate as an authority, namely: that E is in fact an appropriate authority. This supporting argument is in line with the suggested answer to the first main critical question of symptomatic argumentation discussed in Garssen (1997) (see Section 3.3.1). To answer the question whether a certain property Z really indicates a certain characteristic Y, the protagonist can show that property Z is intrinsic to everything that has characteristic Y; in this case: that it is really intrinsic to opinions in field F held by endorser E that they are acceptable. The reason why acceptability can be considered an intrinsic quality of opinions in field F held by endorser E, is exactly the fact that E is deemed an appropriate authority. If it can indeed be claimed that E is an appropriate authority in this situation, then this means that there is no notable reason to assume that readers cannot reasonably be expected to deem E appropriate as an authority.

Note that no prototypical answer to the subordinate critical question regarding the representativeness of E’s experience with drug X is included in the pattern, because I do not consider the inclusion of such an answer prototypical for these advertisements. The reason is the following: although experienced endorsers are authorities concerning their own experiences, in most cases we cannot say that they are actually authorities concerning whether a product works in general for the targeted users of the product. This is a typical weak spot in experience-based authority argumentation. The fact that endorsers honestly believe that a product worked for them strictly speaking does not imply that it is actually an effective product. Perhaps there was a placebo effect, perhaps the endorser would have gotten better anyway, or perhaps some other factor was responsible for the endorser’s cure. So it is very hard for an “endorser by experience” to legitimately claim that (s)he has experience of the general effectiveness of the product (s)he is endorsing. And even if the endorser was really cured as a result of the drug, the problem remains that every patient is different: the fact that a drug has worked for one patient does not automatically entail that it will work for another patient.

The issue of representativeness is typically addressed by making the authority seem like someone that the audience can relate to, so that the reader will more easily identify with the authority and therefore consider him to be more representative. It would, however, go too far to actually include the satisfactory answer to the pertaining critical question in the pattern, since this question is typically left unanswered. As will become clear in Chapter 4, rather than providing an actual answer, advertisers will typically anticipate the question concerning representativeness by “facilitating” a satisfactory answer to this question.

While the pattern represents the prototypical way in which experience-based authority arguments are employed in a DTC medical advertisement and the pattern will typically occur because of the institutional requirements in this context, that does

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40 I thank Professor J. Anthony Blair for pointing this out to me in his commentary on a paper of mine.
not mean that the pattern is explicitly present in its entirety in every single one of these advertisements. Rather than being based on a quantitative observation of a corpus, prototypical argumentative patterns relate to the pre-conditions for strategic maneuvering that are dictated by the institutional circumstances of a communicative activity type. In line with the argumentative characterization of the activity type of that was presented in Chapter 2, my prototypical argumentative pattern reflecting experience-based authority argumentation in DTC medical ads can be seen as one part of the empirical counterpart of the argumentation stage of a critical discussion: it represents the way a particular kind of argumentative means prototypically occurs within this particular argumentative activity type. A prototypical argumentative pattern represents what we are likely to see in empirical reality.

3.6 Conclusion

In this chapter, I have shown how the critical questions for authority argumentation can be made more specific for experience-based authority arguments in the communicative activity type of DTC medical advertisements. Next, I have sketched how the anticipation of these critical questions by the advertiser can be seen as part of a prototypical argumentative pattern for DTC medical advertisements.

The relevant critical questions for evaluating experience-based authority argumentation in this particular communicative activity type (research question 2) were provided in two steps. Using the pragma-dialectical account of authority argumentation as a subtype of the argument scheme of symptomatic argumentation, my first step was to provide a list of the main and subordinate critical questions for authority argumentation in general. My second step was to make these questions more specific in order for them to apply to experience-based authority argumentation and, simultaneously, to the particular context of DTC medical advertisements – motivated by insights regarding the institutional pre-conditions of the argumentative activity type.

In the last part of the chapter, I presented a “prototypical argumentative pattern” of experience-based authority argumentation in DTC medical advertisements that was based both on prototypical satisfactory answers to these critical questions, and on the institutional pre-conditions of the communicative activity type. The various prototypical satisfactory answers to the specific critical questions have different hierarchical positions in the pattern, with the answers to the main critical questions functioning as the minor and major premise of the authority argument, and the answers to the subordinate critical questions functioning as supporting arguments for these two premises. A pattern like this can be utilized as a tool for the reconstruction of experience-based authority argumentation in DTC medical advertisements, as it enables the analyst to see where a certain claim from a DTC medical advertisement might fit in an argumentation structure. It also allows the analyst to more easily identify parts of the argumentation that the advertiser has left unexpressed.


4.1 Introduction

In the previous chapter, I have explained how answers to the main and subordinate critical questions for experience-based authority argumentation in direct-to-consumer medical advertisements can be seen as part of an argumentative pattern that is prototypical for these advertisements. When a protagonist reacts to anticipated critical questions regarding the application of an argument scheme, a pattern of argumentative moves will come into being that is characterized by a specific constellation of argument schemes and argumentation structures in support of a specific type of standpoint (van Eemeren & Garssen, 2014b, p. 7). Since a prototypical argumentative pattern will characteristically occur because of the institutional requirements in a particular context, it represents what we may expect to see in empirical reality. Instead of being based on a quantitative investigation of a corpus, observations regarding prototypical argumentative patterns are motivated by the pre-conditions for strategic maneuvering connected to the institutional circumstances of a communicative activity type.

The argumentative pattern presented in Chapter 3 can be used as an analytic tool for the reconstruction of experience-based authority argumentation, as it portrays how the different statements in an actual DTC medical advertisement argumentatively relate to each other – for instance, which statement is a standpoint, which statement is a main argument and which a subordinate argument. Furthermore, a prototypical argumentative pattern shows a particular combination of argument schemes that is prototypically employed in a DTC medical advertisement. When an analyst reconstructs experience-based authority argumentation in a DTC medical ad while using the corresponding prototypical argumentative pattern as an analytic tool, (s)he will be able to more easily identify argumentation structures and argument schemes in the ad, including the arguments that an advertiser has left unexpressed.

Using a prototypical argumentative pattern as an analytic tool for the reconstruction of experience-based authority argumentation will also aid the analyst in identifying strategic maneuvers concerning experience-based authority argumentation in a DTC medical advertisement. The prototypical argumentative pattern includes the prototypical answers to various anticipated critical questions pertinent to the use of experience-based authority arguments. Such a pattern can be considered as a general
lay-out of options that are available to an advertiser for anticipating critical questions concerning experience-based authority argumentation. By mapping out, in the actual reconstruction of an advertisement, which parts of the pattern have been instantiated and which parts have not, we can define certain choices that an advertiser has made in his or her strategic maneuvering concerning the anticipation of these critical questions.

The current chapter will illustrate the way in which an analyst can reconstruct an advertisement with the help of the prototypical argumentative pattern presented in Chapter 3 and can subsequently identify both sound and fallacious strategic maneuvers aimed at anticipating critical questions regarding advertisers’ use of experience-based authority argumentation. I will illustrate this “pattern-guided” reconstruction and evaluation of experience-based authority argumentation by means of the analysis of one particular direct-to-consumer advertisement for the drug Prilosec OTC as a case in point. In this analysis, I will first reconstruct the advertisement with the help the prototypical argumentative pattern and then use the pattern to identify the strategic maneuvers that are used by the advertiser to anticipate critical questions.

In a reconstruction that is based on a prototypical argumentative pattern, it might be the case that all parts of the prototypical pattern are instantiated, which means that all critical questions have been answered. But while a prototypical argumentative pattern represents the kind of argumentation structure that an analyst may expect to find in a particular argumentative activity type, this pattern is not necessarily instantiated in every case: for various reasons, advertisers may defer from it. In cases where the advertiser has not answered particular critical questions, some answers that are represented in the pattern will not be instantiated in the reconstruction. Comparing the reconstruction to the prototypical argumentative pattern and seeing where they differ, can help the analyst to identify which critical questions have been answered by the advertiser and which have been left out.

When an analyst has determined, with the help of the pattern, which of the critical questions have not been answered by the advertiser, (s)he can subsequently identify whether any (sound or derailed) strategic maneuvers have been used that are aimed at anticipating those particular critical questions in other ways than answering them. In such a manner, besides being a tool for the reconstruction of experience-based authority argumentation in direct-to-consumer medical advertisements, the prototypical argumentative pattern can also function as a tool for identifying particular (derailed) strategic maneuvers.

In the remainder of this chapter, I will deal with research question 3:

What kinds of strategic maneuvers can be used by advertisers to anticipate critical questions?

In Section 4.2 I will discuss the concept of anticipating critical questions by means of strategic maneuvering. In Section 4.3 I will subsequently introduce three kinds of “anticipation maneuvers” that can be used by advertisers to anticipate critical questions concerning experience-based authority argumentation in direct-to-consumer medical advertisements. Each maneuver will be illustrated with examples from actual direct-to-consumer medical advertisements.
Next, in Section 4.4, I will turn to the analysis of the Prilosec OTC advertisement as a case study. I will demonstrate how to reconstruct the experience-based authority argumentation in this particular advertisement and identify the anticipation maneuvers it contains. This analysis will conclude the analytical part of this dissertation, which revolved around my aim to provide an account of an advertiser’s strategic maneuvering in direct-to-consumer medical advertisements in anticipating critical questions concerning experience-based authority argumentation.

4.2 Strategic Maneuvering by Anticipating Critical Questions

While in some other communicative activity types both discussants are actually present, in advertisements we are only presented with the advertiser’s arguments. The other party’s contributions – the critical reactions of the reader – remain implicit. Because of this implicitness, the advertiser must try to imagine how a consumer may respond to his or her argumentation, and must try to take this anticipated response into account in his or her advertisement. The antagonist’s role in an advertisement only consists of the critical reaction that the advertiser anticipates a consumer to have.

The current section will focus on the way in which advertisers can strategically maneuver with the anticipation of critical questions: how they can take into account the critical questions that a reader might ask regarding experience-based authority arguments in a DTC medical advertisement, and adapt their argumentation accordingly. By means of such “anticipation maneuvers”, advertisers aim to instigate a belief that the authorities they appeal to are acceptable; a belief that the issues that might have come up in a sub-discussion about the authority’s legitimacy have been met satisfactorily. Anticipating a critical question can happen both in sound and in fallacious ways: the advertiser can anticipate a critical question by making sure that it can be answered satisfactorily, which is a sound procedure, but (s)he can also anticipate a critical question by trying to make readers overlook the fact that (s)he has, in fact, not given a satisfactory answer to a critical question.

As was explained in Chapter 1, if the advertiser aims to undertake a reasonable persuasion attempt, we may assume that (s)he directs his or her argumentation at a consumer who will make a rational evaluation of the soundness of the advertiser’s argumentation, and base the decision on whether to buy the advertised product on the outcome of this critical scrutiny. But advertisers do not only have a dialectical, but also a rhetorical goal: they wish to persuade consumers to buy a certain product. Arguers do not merely want to resolve a difference of opinion on the merits; they also want this resolution to turn out in their favor (van Eemeren, 2010, p. 39).

Such a tension between reasonableness and effectiveness, an important feature of all argumentative discourse, could be seen as an “argumentative predicament” (van Eemeren, 2010, p. 40). In order to escape this predicament, a discussant should argue in a reasonable manner, while at the same time being as effective as possible within the bounds of a reasonable discussion. In other words: (s)he has to adhere to the rules of critical discussion while making the most opportune choices in the argumentation that (s)he presents. This continual effort is reflected in the pragma-dialectical concept of strategic...
maneuvering: the way an arguer is always maneuvering between his or her dialectical goal of being reasonable and his or her rhetorical goal of being effective (van Eemeren, 2010).

The successful anticipation of critical questions concerning experience-based authority argumentation in direct-to-consumer medical advertisements can be seen as one of the strategic aims of the argumentation stage of these advertisements; an aim that an advertiser can accomplish by means of different kinds of strategic maneuvers, both sound and fallacious. Anticipating a critical question does not always mean answering that critical question. There are more ways in which an anticipated critical question can be taken into account: an advertiser can just make it seem as if a question has been answered while it has in fact not been, or (s)he can create opportune circumstances for a reader to provide a satisfactory answer him- or herself. All of these “anticipation maneuvers” constitute a combination of a particular choice from the topical potential of the discussion moves that are available to the advertiser at a specific point; a particular adaptation to audience demand – the demand of the intended readers of the ad; and a particular use of presentational devices to phrase the contents of the advertisement.

Answering a critical question satisfactorily can in principle be considered a sound argumentative move in terms of the Argument Scheme Rule. Leaving out the answers to certain critical questions is in itself not necessarily a fallacious move: the protagonist only has to provide answers to critical questions that are raised (van Eemeren & Grootendorst, 1992: 162-165); although in an implicit discussion this requirement indicates that a protagonist has to address all the critical questions that the antagonist is likely to raise. Refusing to answer a critical question or preventing a critical question from being raised are violations of the Argument Scheme Rule, because these moves impede the intersubjective testing procedure. Such impediments hinder the resolution of a difference of opinion on the merits, which means that they are fallacies: “all discussion moves that are an obstacle to (the resolution of the difference of opinion) must be recognized as such and be unmasked as fallacious” (van Eemeren & Grootendorst, 1992: 95). Refusing to answer a critical question can furthermore be considered a violation of the Burden of Proof Rule, because such a refusal means that the protagonist fails to meet his or her obligation to defend a (sub)standpoint when prompted to do so.

In the next section, I will discuss three kinds of strategic maneuvers that can be used to anticipate critical questions in direct-to-consumer medical advertisements: providing an answer to a critical question, exploiting ambiguity concerning an answer to a critical question and facilitating an answer to a critical question.

41 When I use the term “critical question” in the current chapter, it may refer both to the main critical questions of authority argumentation and to the subordinate critical questions for each of these main critical questions. In distinguishing strategic maneuvers that can be used to anticipate a critical question, it does not make a difference whether that critical question is a main or a subordinate question.

42 If other discussion rules are violated in the process, however, answering a critical question satisfactorily can of course still be a fallacious discussion move.

43 As was explained in Chapter 3, in the intersubjective testing procedure, the discussants determine whether the use of an argument scheme is appropriate and whether it is correctly applied (van Eemeren & Grootendorst, 2004: 149-150).
4.3 Three Kinds of Anticipation Maneuvers

4.3.1 Providing an Answer to a Critical Question
First of all, an arguer can support his or her standpoint by means of arguments that directly provide answers to certain critical questions. Doing so is in accordance with the intersubjective testing procedure in the ideal model of critical discussion; when a critical question is raised by the antagonist, the protagonist has to provide an answer to that question (van Eemeren & Grootendorst, 2004, p. 172). If it is actually possible to provide a satisfactory answer to the question – an answer that is required for the antagonist to consider the argument scheme correctly applied – then providing this answer is both dialectically and rhetorically opportune, as it will make the protagonist’s argument more acceptable to the antagonist.

In direct-to-consumer medical advertisements an advertiser might provide a satisfactory answer to a critical question, for instance, with regard to the critical question whether there is no notable reason to assume that an endorser only claims something because (s)he profits from appearing in the advertisement. If the endorser was not paid for his or her appearance in the ad, it can be advantageous for the advertiser to say so in the advertisement, thereby providing a satisfactory answer to a critical question. A statement indicating that a person is not compensated for appearing in an advertisement can – together with other arguments – be part of the subordinative argumentation that supports an authority argument.

In the following advertisement for Juvéderm (Figure 4.1), a prescription drug that can be injected into the face to suppress facial wrinkles, the satisfactory answers to two critical questions are provided.
Figure 4.1. Direct-to-consumer advertisement for the prescription drug Juvederm (first page only).
The caption under the small “before and after” photos states that the endorser has indeed achieved positive results with the drug (“real results after 4 weeks”), which is a satisfactory answer to the critical question concerning there being no notable reason to assume that the endorser has not actually experienced the product’s effectiveness. Although this photo caption also states that “individual results may vary”, the statement at the bottom of the ad – after the asterisk – explains that the endorser’s claim accurately corresponds to the results that most people achieve with Juvederm, which is – atypically – a satisfactory answer to the critical question concerning representativeness. These satisfactory answers can both be used as subordinate arguments in support of the advertiser’s authority argumentation.

Providing a satisfactory answer to a critical question is in principle a sound strategic maneuver: in and of itself, it does not constitute a violation of the Argument Scheme Rule. However, no type of strategic maneuver can ever be considered sound per se: while not violating the Argument Scheme Rule, providing a satisfactory answer to a critical question might be done in such a way that other discussion rules are violated in the process, which would render this maneuver fallacious.

### 4.3.2 Exploiting Ambiguity concerning an Answer to a Critical Question

It could be the case that an advertiser does not wish his or her readers to notice the fact that one or more of the (subordinate) critical questions pertaining to experience-based authority arguments cannot be answered satisfactorily. Such problematic critical questions – questions to which the advertiser can provide no satisfactory answer – can be anticipated by means of strategic maneuvers that are aimed at making it difficult for a reader to determine whether or not a critical question can be answered satisfactorily.

A way in which an advertiser can achieve such an aim, is by exploiting ambiguity concerning an answer to a critical question. The content of such ambiguous anticipation maneuvers is closely related to the content of answers to certain critical questions, so that these maneuvers make it appear as if a question has been dealt with, without constituting an actual answer. For instance, instead of stating that an endorser is an actual user of a medical product and has experienced its positive results, an advertiser might claim that someone is an “actual patient”, which literally only means that this person suffers from the disease that the drug is meant to treat, not that the patient has used the drug or that it has worked for him or her.

This formulation is used in the following advertisement for the drug Restasis – a prescription drug that is used to treat the symptoms of Chronic Dry Eye syndrome (Figure 4.2), in a small font at the bottom of the ad: “Amanda Serra is an actual patient and is compensated for appearing in this advertisement”. 
I’m not shy about speaking my mind...  

I was putting artificial tears in my eyes time after time, all day long

So I asked my doctor about RESTASIS®

RESTASIS® (Cyclosporine Ophthalmic Emulsion) 0.05% helps increase your eyes’ natural ability to produce tears, which may be reduced by inflammation due to Chronic Dry Eye. RESTASIS® did not increase tear production in patients using anti-inflammatory eye drops or tear duct plugs.

Important Safety Information: 
RESTASIS® Ophthalmic Emulsion should not be used by patients with active eye infections and has not been studied in patients with a history of herpetic viral infections of the eye. RESTASIS® should not be used while wearing contact lenses. If contact lenses are worn, they should be removed prior to use. The most common side effect is a temporary burning sensation. Other side effects include eye redness, discharge, watery eyes, eye pain, foreign body sensation, itching, stinging, and blurred vision.

You are encouraged to report negative side effects of prescription drugs to the FDA. Visit www.fda.gov/medwatch, or call 1-800-FDA-1088.

Please see next page for important product information.

Ask your doctor if RESTASIS® is right for you.
Go to www.restasy30.com or call 1-877-432-2227 for a free information kit. Find out more about a $20 rebate offer! See next page for details.

ALLERGAN
Leader in Dry Eye Care

Amanda Serra is an actual patient and is compensated for appearing in this advertisement.

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Figure 4.2. Direct-to-consumer advertisement for the prescription drug Restasis (first page only).
This statement mentions the fact that Amanda Serra is compensated for appearing in
the advertisement, which in absence of other reasons for Amanda to endorse Restasis
could be an unsatisfactory answer to the critical question about an endorser only claiming
something because (s)he profits from this. The other part of the statement, that Amanda is
an “actual patient”, appears to be aimed at providing another reason why Amanda would
endorse this drug. But when we look at them more closely, we can see that the words
“actual patient” literally do not say anything about Amanda’s experience with Restasis. In
order to make sense of the words “actual patient” in this context, however, readers might
interpret them as a claim that this person has, probably successfully, used the advertised
drug.

If we see this ambiguous anticipation maneuver as a discussion move by the
protagonist in a critical discussion and consider the different ways in which an antagonist
can interpret it, we can see how it is difficult for a reader to assess the outcome of the
intersubjective testing procedure when such maneuvers are used.44

The discussion is at a point where an experience-based authority argument
is advanced by the protagonist, and the discussants are testing the acceptability of this
argument in the intersubjective testing procedure. The antagonist poses the critical
question “is there no notable reason to assume that the endorser has not actually
experienced the desirable consequences of this drug?”. Then the protagonist utters the
words “[endorser] is an actual patient”. How should the antagonist interpret these words?

That the endorser is an “actual patient” is one of the conditions that must be met
in order for him or her to be a real user, because the advertised drug is a prescription
drug that is only prescribed to patients suffering from a particular affliction.45 But it is
not an answer to the critical question that was posed: to accurately answer the critical
question, additional information is required concerning the endorser experiencing or
not experiencing any desirable effects of the drug. The antagonist would be justified in
assuming that a reasonable protagonist would provide this information if it were available,
to properly complete the intersubjective testing procedure.

The antagonist knows that instead of “actual patient” the protagonist could
potentially have used the expression “[drug x] substantially reduced the symptoms of
[endorser]”, or a similar expression that would indicate that the endorser experienced the
desirable effects of the drug. The pragma-dialectical Principle of Communication requires
that speech acts are not incomprehensible, insincere, superfluous or futile, and that it
should not be the case that they do not appropriately connect to preceding speech acts.46

If more information were available concerning the endorser’s experience with the drug,
then the words “actual patient” would be superfluous: if someone has successfully used

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44 See Chapter 3 for an explanation of the intersubjective testing procedure in which discussants determine
whether an argument scheme is correctly applied.
45 That an endorser being an “actual patient” is a condition that needs to be fulfilled in order for that
endorser to be an actual user was suggested to me by Jacky Visser, for which I am grateful.
46 Integrating Searle’s theory of speech acts (1979) and Grice’s exposition of conversational maxims (1975),
the pragma-dialectical argumentation theory incorporates a Principle of Communication that arguers are
in principle assumed to adhere to, but that they can purposefully deviate from in order to convey an indirect
or implicit meaning (van Eemeren & Grootendorst, 1992, pp. 50-52). The pragma-dialectical Principle of
Communication is phrased as “be clear, honest, efficient and to the point”, further interpreted in speech act

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a prescription drug, then (s)he naturally also is a patient, so it would not be necessary to mention this separately. Moreover, the protagonist’s authority argument would also be more acceptable if the protagonist would provide the answer that the product really was effective for the endorser, and the antagonist would be justified in assuming that the protagonist wishes his or her argument to be maximally acceptable.

The fact that the protagonist does not say that the product has worked for the endorser, and the antagonist’s assumption that the protagonist’s words “actual patient” are not superfluous because that would violate the Principle of Communication, may lead the antagonist to infer that the protagonist uses these words because the endorser has in fact not used the advertised drug, and therefore the protagonist cannot say more than “actual patient” because (s)he does not wish to perform insincere speech acts. From these assumptions, the antagonist can then deduce that the corresponding critical question has to be answered unsatisfactorily.

But the antagonist may also reason differently. (S)he may also assume that, because the protagonist is in principle a reasonable arguer, the fact that the protagonist advanced this particular authority argument indicates that the protagonist is able to satisfactorily answer the critical questions concerning this argument. For that reason, the antagonist may try to interpret the protagonist’s utterance “[endorser] is an actual patient” as a satisfactory answer to the critical question that was posed. After all, if the statement would not be intended as a satisfactory answer, it would not appropriately connect with the preceding speech acts in the discussion – since the discussion at that point is going through the intersubjective testing procedure, in which the protagonist is expected to satisfactorily answer the critical questions concerning his or her argument – which would not be in accordance with the Principle of Communication.

The antagonist would therefore be justified in looking for an alternative meaning of the words “actual patient” that provides a satisfactory answer to the critical question. In his or her search for such an alternative interpretation, the antagonist may use the context in which the protagonist’s statement was made: the fact that the endorser is willing to appear in the ad can be seen as an indication for the interpretation that this person is not only a patient, but actually a satisfied user. Using these contextual clues to reconstruct a meaning of the words “actual patient” that signifies that the protagonist’s speech act forms an appropriate connection to preceding speech acts, the antagonist might infer that the critical question can be answered satisfactorily.

A reader’s willingness to look for an implicit meaning when a speech act appears to violate the Principle of Communication, can be exploited by advertisers: by using vague terminology, they can get readers to interpret their claims as stronger than they are, without literally having made claims that are not true. Jacobs (1995), in his discussion of implicatures and deception in the arguments of commercial advertising, speaks of vague or ambiguous terms that allow advertisers to imply a stronger claim than the one they are literally making. According to Jacobs, advertisers typically only defend the literal theoretical terms as the five rules do not perform any incomprehensible speech acts, do not perform any insincere speech acts, do not perform any superfluous speech acts, do not perform any futile speech acts, and do not perform any speech acts that do not appropriately connect to preceding speech acts.
Strategically Anticipating Critical Questions concerning Experience-based Authority Argumentation

semantic meaning of their claims, while they actually count on consumers drawing stronger implicatures from these literal claims.

Jacobs argues that there is a “pragmatically defective quality” to the language of advertisements: because of the goal of selling a product, we know that the weaker claims cannot be what the advertisers are trying to convey, but at the same time we know that the reason why they do not explicitly make stronger claims is because such stronger claims cannot be defended. So there is something wrong with both the literal meaning and the implicature, which makes these claims pragmatically defective. According to Jacobs, because advertisers do this in such an obscured and ambiguous manner, we cannot really hold them accountable. Jacobs states that “these strong implicatures are not so open and definitive that advertisers are committed to having made them. Their deniability is made possible by their pragmatically defective quality. And this pragmatic defectiveness allows advertisers a measure of plausible deniability” (Jacobs, 1995, p. 591).

When we look more closely at the Restasis example, we can see that it is not just the advertiser’s choice to use the expression “actual patient” that makes it doubtful whether or not Amanda has actually experienced the effectiveness of this drug. Even though Amanda may be an actual patient of the disease Chronic Dry Eye which the drug Restasis is meant to remedy, the statement that Amanda asked her doctor about Restasis because she was putting artificial tears in her eyes all day long, does not indicate that the product was effective: it describes Amanda’s reason for wanting to use Restasis, not her experience with the product. This reason for wanting to use Restasis can be interpreted as a claim that Restasis makes it unnecessary to put artificial tears in your eyes – the word “so” between the statement about artificial tears and the statement about asking her doctor indicates that Amanda apparently saw Restasis as a solution to her problem. But whether Amanda actually used the product after she spoke to her doctor, and whether it worked, is not revealed in the advertisement. However, the statement that Amanda is an “actual patient”, combined with the contextual information that she is willing to appear in a Restasis advertisement and Amanda’s remark concerning artificial tears, invites the reader to activate the interpretation that Amanda endorses the product based on her own experience.

The same maneuver of mentioning that “Amanda Serra is an actual patient” also ambiguously anticipates the satisfactory answer to another critical question: the question whether or not Amanda has actually experienced the effectiveness of this drug. Even though Amanda may be an actual patient of the disease Chronic Dry Eye which the drug Restasis is meant to remedy, the statement that Amanda asked her doctor about Restasis because she was putting artificial tears in her eyes all day long, does not indicate that the product was effective: it describes Amanda’s reason for wanting to use Restasis, not her experience with the product. This reason for wanting to use Restasis can be interpreted as a claim that Restasis makes it unnecessary to put artificial tears in your eyes – the word “so” between the statement about artificial tears and the statement about asking her doctor indicates that Amanda apparently saw Restasis as a solution to her problem. But whether Amanda actually used the product after she spoke to her doctor, and whether it worked, is not revealed in the advertisement. However, the statement that Amanda is an “actual patient”, combined with the contextual information that she is willing to appear in a Restasis advertisement and Amanda’s remark concerning artificial tears, invites the reader to activate the interpretation that Amanda endorses the product based on her own experience.

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In those cases where answers to critical questions are not provided, but only suggested by means of vague or ambiguous claims, readers are hindered in their implementation of the intersubjective testing procedure. The advertiser implicitly makes the stronger interpretation of those claims more relevant for the readers because of the ambiguity of the claims combined with certain contextual information. There is, however,
reason to assume that the weaker meaning of those claims should actually be used to
determine whether or not a critical question can be answered satisfactorily.

In evaluating the Restasis example, going by the weaker meaning of the words
“actual patient” we would have to answer the question whether Amanda actually
experienced Restasis’ effectiveness unsatisfactorily. If we chose to go by the stronger
meaning that Amanda’s Chronic Dry Eye was alleviated by Restasis, however, then this
critical question should be answered satisfactorily. Readers would be justified in going by
the stronger interpretation that Amanda has positive experiences with Restasis, because
of the fact that Amanda is willing to endorse it. But there is also reason to assume that the
critical question should actually be answered going by the weaker meaning that Amanda
is a Chronic Dry Eye patient but has not used Restasis: if it would be the case that Restasis
actually alleviated Amanda’s symptoms, then why would the advertiser not just say so,
rather than choosing a vague formulation like “actual patient”?

When assessing this kind of ambiguity, it is important to realize that an advertiser’s
way of phrasing a particular statement may be considered a reasoned choice and that – in
case of formulations that are not required by law, such as the “actual patient” statement –
(s)he could have made other choices instead. Especially when we take into consideration
the amount of money that is spent on DTC medical advertising,47 we may assume that
the phrasing of these ads is well thought out by advertisers. Contrary to Jacobs’ (1995)
belief that advertisers cannot be held accountable for the implicatures that can be drawn
from their literal claims, I hold that because of the fact that an advertiser has a choice in
this respect, and that (s)he chose to go for an ambiguous expression, in an argumentative
sense the advertiser can be considered to be committed to the stronger meaning that the
reader is invited to interpret.

The advertiser’s ambiguous choice of words in this particular context implicitly
activates a stronger interpretation of a claim in determining whether a critical question
can be answered satisfactorily, while there is reason to assume that we should go by the
weaker meaning of the claim. In this manner, the advertiser’s anticipation maneuver
gets in the way of determining the outcome of the intersubjective testing procedure,
which constitutes a hindrance to the resolution of the difference of opinion. For this
reason, I consider these ambiguous anticipation maneuvers to be derailments of strategic
maneuvering, violating the Argument Scheme Rule.48

4.3.3 Facilitating an Answer to a Critical Question

Finally, rather than answering a critical question or exploiting ambiguity concerning
an answer to a critical question, the advertiser can also attempt to just “set the stage”
or “prepare the ground” for a satisfactory answer to a critical question, without actually

47 Data provided by Nielsen, a global information and measurement company, showed that in the United
States in 2013 an amount of $1.09 billion was spent by pharmaceutical companies on direct-to-consumer
pharmaceutical advertising in magazines and an amount of $149.2 million on direct-to-consumer
pharmaceutical advertising in newspapers.

48 Exploiting ambiguity can simultaneously be interpreted as a violation of the Usage Rule – which is how
misuses of ambiguity are normally interpreted in the pragma-dialectical argumentation theory, but because
this particular exploitation of ambiguity as an anticipation maneuver hinders the intersubjective testing
procedure, I consider it to also be a violation of the Argument Scheme Rule.
providing that answer. This is a kind of maneuver that I propose to dub *facilitating an answer to a critical question*. By facilitating an answer to a critical question, an advertiser creates opportune circumstances for a reader to regard an answer to a critical question to be satisfactory. Unlike the exploitations of ambiguity discussed in the previous section, *facilitating* maneuvers are not necessarily derailments of strategic maneuvering. *Facilitating* maneuvers are aimed at increasing the chances that a critical question will be considered satisfactorily answered, but they do not hinder readers in determining the answers to critical questions.

A *facilitating* maneuver can contribute to the rhetorical goal that advertisers strive to fulfil in the particular part of the argumentation stage where they use an experience-based authority argument: to anticipate critical questions concerning this authority argument in such an effective manner that the antagonist withdraws his or her doubt concerning the argument. If they do this in such a way that the dialectical goal of this particular part of the argumentation stage – soundly completing the intersubjective testing procedure – is upheld, their *facilitating* maneuver does not instigate a derailment of strategic maneuvering.

An example of *facilitating* an answer to a critical question can be found in the following advertisement for the product *Bio-Oil*, a freely obtainable skincare product against scars and stretch marks. The advertisement, represented in Figure 4.3, features a testimonial by a (real or supposed) user of the product, Alexandria Pelletier.
Chapter 4

Figure 4.3. Direct-to-consumer advertisement for the freely obtainable health product Bio-Oil.

"I never wrote a testimonial before for any sort of product. But then, I have never been impressed or happy with any of the results until now! I saw a Bio-Oil ad in a magazine and I have to admit I was totally sceptical but decided to give it a go. It has been over a month that I've been using Bio-Oil twice a day and the stretch marks on my stomach have started to look so much better! So I just wanted to let you know that this product is working for me and I will continue using it. And the price tag is an extreme plus!" Alexandria Pelletier
Research by Friedman and Friedman (1979) indicates that endorsements featuring “typical consumers” not so much rely on the expertise of an endorser, but most importantly rely on the extent to which the consumer is able to relate to the endorser. By making an endorser look like someone who is very similar to the reader, emphasizing the qualities that the endorser has in common with the reader, an advertiser can facilitate a satisfactory answer to the critical question concerning the representativeness of the endorser.

In order for the reader to believe that Alexandria’s experience is representative of the experience that the reader will have with the product, the impression is conveyed that Alexandria is very much like the reader, so that the reader can easily relate to her. Such an impression adds to Alexandria Pelletier’s acquired ethos, by making her seem like a more representative authority to the reader.49 As was mentioned before, the representativeness of “endorsers by experience” is a structural weak spot in this type of argumentation, because technically such an endorser is only an authority concerning his or her own experience, not concerning the effectiveness of the product in general. The experience of someone who is easy to relate to, however, might be seen as more relevant to the reader’s own prospects experience than the experience of someone the reader cannot relate to so easily.

Being skeptical about the product is a trait Alexandria is likely to have in common with the reader who is looking at the ad at that moment. On top of this, she literally mentions that she saw an advertisement for Bio-Oil in a magazine, which is just what the reader is doing. Alexandria’s statement about usually not writing testimonials, besides making her seem similar to the reader, could also be seen as a maneuver that aims at facilitating a satisfactory answer to the critical question concerning an endorser only claiming something because (s)he profits from this. If Alexandria usually does not write testimonials and only now writes to the company because she is so impressed with the product, it is not likely that she makes a living out of appearing in advertisements. Furthermore, her statement that she “just wanted to let [the company] know” that the product worked for her suggests a spontaneous reaction that was not motivated by financial reasons.

Additionally, by making a testimonial appear genuine, advertisers can facilitate a satisfactory answer to the critical question about there being no notable reason to assume that the endorser was quoted incorrectly or out of context. The critical question regarding being quoted correctly is anticipated by choosing to print the entire text of Alexandria’s (supposed) letter to the company, including her name at the end, rather than just quoting the parts about how well the product worked for her. The impression that these are indeed Alexandria’s own words is strengthened by Alexandria’s confession that she was skeptical about the product at first, which does not seem like something that the company would make up. Furthermore, these maneuvers – printing the entire testimonial, the (supposed) writer’s name, and the admission that Alexandria was skeptical at first – simultaneously facilitate a satisfactory answer to the critical question concerning the endorser having experienced the product’s effectiveness: since the testimonial is about the effectiveness

49 As was explained in Chapter 3, in using his existing ethos an arguer makes use of his previously established character, while in using acquired ethos an arguer establishes good character for himself through a certain discussion move (Pilgram, 2015, based on van Eemeren).
of the product, if the testimonial appears genuine, the experienced effect also appears genuine. These “facilitating” maneuvers do not constitute actual answers to critical questions, nor do they make it more difficult to answer these questions, but they “set the stage” for a satisfactory answer to a critical question, aiming to increase the chances that readers will consider a question to be satisfactorily answerable.

Figure 4.4 provides a schematic overview of the anticipation maneuvers discussed in the current section. I do not claim that these are the only three types of maneuvers that an advertiser has at his or her disposal to anticipate critical questions. Rather, in order to answer research question 3, “What kinds of strategic maneuvers can be used by advertisers to anticipate critical questions?”, I have chosen to illustrate the concept of strategic maneuvering with the anticipation of critical questions by means of three exemplary kinds of such anticipation maneuvers. As a case in point, in the next section I will show how these three kinds of maneuvers can be identified in the argumentative analysis of an advertisement.
Dialectical aim: Soundly completing intersubjective testing procedure

**Anticipating critical questions concerning experience-based authority arguments in the argumentation stage of a direct-to-consumer medical advertisement**

Rhetorical aim: Anticipating critical questions in such an effective way that antagonist withdraws doubt concerning authority argument

### Anticipation maneuvers

<table>
<thead>
<tr>
<th>Potentially sound</th>
<th>Derailment</th>
<th>Potentially sound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Providing an answer to a critical question</td>
<td>Exploiting ambiguity concerning an answer to a critical question</td>
<td>Facilitating an answer to a critical question</td>
</tr>
</tbody>
</table>

**Example:**
- Mentioning that endorser is actual user of the product, to answer critical question about endorser experiencing product’s effectiveness
- Using ambiguous expression “actual patient” to invite reader to go by stronger meaning of expression, leading to satisfactory answer to critical question about endorser experiencing product’s effectiveness, while there is reason to assume that question should actually be answered unsatisfactorily by means of weaker meaning of expression.
- Making testimonial look genuine to facilitate satisfactory answer to critical question about endorser experiencing product’s effectiveness.

*Figure 4.4. Three types of anticipation maneuvers concerning experience-based authority argumentation in direct-to-consumer medical advertisements.*
4.4 The Prilosec OTC Advertisement: A Case Study concerning the Analysis and Evaluation of Anticipation Maneuvers in Direct-to-Consumer Medical Advertisements

To demonstrate how anticipation maneuvers concerning experience-based authority argumentation in a direct-to-consumer medical advertisement can be reconstructed and evaluated, the current section provides an analysis of an advertisement for the drug Prilosec OTC as a case in point. First, a reconstruction will be made of the experience-based authority argumentation in the advertisement, for which the prototypical argumentative pattern presented in Chapter 3 will be used as a template. Next, by comparing this reconstruction to the original pattern and mapping out which parts of the pattern were instantiated in the advertisement and which were not, the strategic maneuvers will be identified that the advertiser has used to anticipate critical questions.

Prilosec OTC is an over-the-counter drug that blocks the symptoms of heartburn – pain caused by rising stomach acid. In many advertisements containing experience-based authority arguments, the quoted user is a celebrity. This is also the case here: the advertisement features Larry the Cable Guy, a character played by the American comedian Dan Whitney. The expression “Larry the cable guy” is sometimes used in English as a personification of the common man – the man in the street. But this particular Larry the Cable Guy is Whitney’s stereotypical redneck impersonation, with a thick Southern accent. Larry the Cable Guy has become famous over the years as an actor, radio personality and country singer. His trademark attire is a pair of jeans, a flannel shirt with the sleeves cut off, and a cap with his catchphrase “Git-R-Done”. In the Prilosec OTC advertisement (Figure 4.5), Larry is depicted in this typical attire, but over his flannel shirt, he is wearing a doctor’s coat with the sleeves cut off.
Figure 4.5. Direct-to-consumer advertisement for the over-the-counter drug Prilosec OTC.
Figure 4.6 shows the transcript of this advertisement, including line numbers that I will later refer to when discussing the reconstruction of the authority argumentation in this advertisement.

[1]Suffering from heartburn day after day is as unnecessary as wearing sleeves.

[picture of Larry the Cable Guy in sleeveless shirt covered by sleeveless doctor’s coat]

[2]Larry the Cable Guy

[3]Actual user

[4]Don’t be one of them folks who gets heartburn and then treats, day after day.

[5]Block the acid by treating your frequent heartburn with Prilosec OTC and don’t get heartburn in the first place. *

[picture of Prilosec OTC packaging]


[8]Zero heartburn. *

[small font at the bottom:]

[9] *It’s possible while taking Prilosec OTC.

[10] Use as directed for 14 days to treat frequent heartburn.

[11] Do not take for more than 14 days or more often than every 4 months unless directed by a doctor.


[copyright and registration number]

Figure 4.6. Transcript of the Prilosec OTC advertisement.

I believe that the comparison between the non-necessity of heartburn and the non-necessity of wearing sleeves in the heading is intended as a comical reference to the sleeveless doctor’s coat. The statement’s function is to draw the attention of the reader towards the ad rather than to actually be a serious attempt at convincing the reader that this comparison is justified. At first glance, the standpoint seems to be that it is not necessary to suffer from heartburn day after day. However, when we take the characterization of the argumentative activity type of DTC medical ads into account, we can reconstruct the (implicit) prescriptive standpoint as “Patients suffering from frequent heartburn should use Prilosec OTC”.

Guided by the prototypical argumentative pattern of DTC medical advertisements presented in Chapter 3 (repeated in Figure 4.7), a reconstruction can be made of the authority argumentation in this advertisement.

<table>
<thead>
<tr>
<th>1 Suitable patients should use drug X</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Using X has desirable consequence C that X will cure or alleviate the patient’s medical problem</td>
</tr>
<tr>
<td>1.1.1a That using X has desirable consequence C is an opinion in field F, “medical products that E has positive experiences with”, held by endorser E</td>
</tr>
<tr>
<td>1.1.1a.1a That using X has desirable consequence C is an accurate representation of E’s current opinion</td>
</tr>
<tr>
<td>1.1.1a.1b E’s opinion is based on E’s personal experience with desirable consequence C of drug X</td>
</tr>
<tr>
<td>1.1.1a.1b.1 There is no notable reason to assume that E only claims that drug X has desirable consequence C because (s)he profits from claiming this</td>
</tr>
<tr>
<td>1.1.1a’ Being an opinion in field F held by endorser E indicates acceptability</td>
</tr>
<tr>
<td>1.1.1a’ E is an appropriate authority</td>
</tr>
</tbody>
</table>

[1.1.1b – 1.1.1n: One or more coordinative argument(s) other than experience-based authority argumentation need to be available to be provided upon request]

Figure 4.7. Experience-based authority argumentation in a prototypical argumentative pattern of direct-to-consumer medical advertisements.

Using the structure of this pattern as a template and replacing its generic statements with the actual authority argumentation from the Prilosec OTC advertisement, we can reconstruct the advertisement as follows (Figure 4.8). By referring to line numbers from the transcript, I have indicated at which points in the original advertisement particular parts of the reconstruction are mentioned.
(Patients suffering from frequent heartburn should use Prilosec OTC) (1).

(1.1) Using Prilosec OTC has the desirable consequence that it prevents frequent heartburn by blocking the acid rather than only treating heartburn after one gets it [4, 5]

((1.1.1a) That Prilosec OTC has this desirable consequence is an opinion in the field “medical products that Larry has experience with” held by Larry the Cable Guy)

((1.1.1a.1) Larry is an actual user of Prilosec OTC [2, 3])

Figure 4.8. Reconstruction of the experience-based authority argumentation in the Prilosec OTC advertisement.

The authority argument featuring Larry the Cable Guy is advanced to support the argument that Prilosec OTC prevents frequent heartburn by blocking burning stomach acid, rather than only treating heartburn after one gets it. The advertisement also contains argumentation about Prilosec OTC making it possible to have zero heartburn – sections [6] to [9] of the transcript – but I do not consider that argumentation to be part of the authority argumentation as I believe these are additional claims by the advertiser rather than quotes from Larry.

When comparing this reconstruction to the pattern in figure 4.7, it can be seen that in this advertisement some parts of the prototypical argumentative pattern are lacking, because they are not addressed by the advertiser. By looking at the parts of the pattern that are actually present in the reconstruction, an analyst can identify those strategic maneuvers that provide satisfactory answers to critical questions. By looking at the parts of the pattern that are not present in the reconstruction, an analyst has a heuristic for identifying possible strategic maneuvers that are aimed at exploiting ambiguity concerning the particular critical questions that are not directly addressed, or are aimed at facilitating satisfactory answers to those particular questions.

Note that this is not a reconstruction of all the argumentation in the advertisement, but just of the standpoint of the ad, of Larry the Cable Guy’s authority argumentation, and of other arguments that are directly supported by, or that directly support, this authority argumentation. In a full reconstruction of the advertisement other arguments can be added coordinately to the authority argumentation, because of the institutional constraint that experienced-based authority argumentation can never stand on its own but should be supplemented – upon request – with additional argumentation, based on the legal rules. That is why the authority argumentation in this reconstruction is identified as 1.1.1a (etc): other coordinative arguments 1.1.1b – 1.1.1n can be added in a full reconstruction of the advertisement.
Providing an answer to a critical question
In this advertisement, one answer to a subordinate critical question is (partly) provided. The statement “Larry the Cable Guy. Actual user” – [2] and [3] in the transcript – answers the question whether there is no notable reason to assume that the endorser has not actually experienced the drug’s desirable consequences.51 Note, however, that this is not the entire answer to the critical question, since it is not mentioned whether the drug was also effective for Larry. This will be further discussed below.

Exploiting ambiguity concerning an answer to a critical question
The statement “actual user” only covers one part of the issue of whether the endorser has or has not experienced the drug’s desirable consequence: it confirms that Larry has indeed used the drug, but it does not say that it actually worked for him. While the fact that Larry endorses this drug of course suggests that it has worked for him, Larry does not claim this. It might be the case that Prilosec OTC did not prevent Larry’s heartburn, and that Larry just endorses the drug because he is being paid for it. In no part of the advertisement does Larry actually state that his heartburn disappeared.

I consider the statement “actual user” to be a reflection of a choice from the topical potential aimed at suggesting that the critical question concerning the endorser having experienced the drug’s effectiveness can be answered satisfactorily, without actually providing an answer. Readers are invited by the advertiser to interpret the statement in the stronger sense that Prilosec OTC has cured Larry’s heartburn, because of the context of Larry advising readers to use Prilosec OTC if they suffer from heartburn. But there is reason to believe that a weaker interpretation – Larry has used Prilosec OTC, but it has not significantly reduced his symptoms – should be used instead: the fact that Larry is a celebrity and is likely to have received a considerable amount of money to endorse this product, might have had a bigger influence on his choice to endorse the product than his (supposed or real) satisfaction with the results he achieved with the drug. An unsatisfactory answer to a question that is subordinative to another critical question can thus be used to support a decision on what a higher level answer should be: because there is reason to assume that Larry only endorses the product because he is paid for it, there is also reason to assume that Larry did not necessarily experience the effectiveness of the advertised drug himself.

Facilitating an answer to a critical question
The choice to use a celebrity in the advertisement can be seen as a facilitating maneuver by the advertiser. A celebrity endorsement such as this one can attach a positive connotation to the product that is endorsed (Amos, Holmes, & Strutton, 2008; Thomson, 2006), as from now on the reader will associate the product with a celebrity (s)he has positive feelings about. Atkin and Block (1983) and Petty, Cacioppo and Schumann (1983) found

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51 Although Larry the Cable Guy can of course not be an “actual user” because he is a fictional character, I interpret this statement as referring to the comedian who plays Larry: Dan Whitney.
that for readers of advertisements, celebrity endorsers produced more positive attitudes towards advertising and greater purchase intentions than non-celebrity endorsers.\textsuperscript{52} 

Apart from this psychological effect, as a strategic maneuver an authority argument featuring a celebrity has the rhetorical benefit of making readers look more favorably upon the issue of whether this one person’s experience is representative for the experience of users of the product in general, and is therefore relevant for the reader. If an unknown endorser were quoted, questions like “so it’s just this one guy who the product worked for, what is it to me?” might pop up more easily than when the endorser is a celebrity: “the product worked for Larry the Cable Guy, and I really like Larry, so I’ll give it a try”.

The topical choice to use not just any celebrity, but to specifically use Larry the Cable Guy to endorse this product, particularly functions to make readers look more favorably upon the issue of representativeness. In a literature review on celebrity endorsements, Erdogan (1999) concluded that celebrity endorsements are most effective when celebrities are used “whose public persona match with the products and target audiences” (p. 295). In the Prilosec OTC ad, the particular endorser that was chosen by the advertiser matches both the target audience of the advertisement and the advertised product: Larry is character representing a typical American, and he is also overweight – obesity being one of the main causes of heartburn. The advertiser’s choice to let Larry wear a sleeveless doctor’s coat is in line with the impression that is conveyed that Larry is just a regular guy: although the main goal of Larry wearing a doctor’s coat is probably to create a humorous picture,\textsuperscript{53} the fact that the coat’s sleeves have been cut off suggests that Larry has not just put on any old doctor’s coat, but that it is his own coat, integrated into his typical image of always wearing sleeveless shirts. The sleeveless doctor’s coat can make readers recall Larry’s existing ethos of being an authentic American guy who always wears sleeveless shirts, whom many people can relate to. This existing ethos maneuver adds to the facilitation of a satisfactory answer to the critical question concerning the representativeness of Larry’s experience for the effect that the reader might experience himself – if people can relate to Larry, they will more easily believe that they will experience the same effects that Larry experienced. In this sense, the use of a celebrity might make an experience-based authority argument more rhetorically effective by facilitating an answer to the critical question concerning representativeness.

But while the choice to use Larry the Cable Guy might make the argument more rhetorically effective, the argument does not become more acceptable when it refers to a celebrity than when it would refer to any other common user of the product. Larry’s authority is only based on the fact that he has used the product, not on his being a celebrity. In fact, an “endorser by experience” being a celebrity might even make an authority argument less acceptable, since it could more easily give rise to issues concerning the

\textsuperscript{52} In Petty and Cacioppo’s Elaboration Likelihood Model, a celebrity endorsement can function as a “cue” for some readers: they may unwittingly apply an (irrational) rule of thumb that if a celebrity says something, it must be true (Petty, Cacioppo & Schumann, 1983).

\textsuperscript{53} The “mismatch” between Larry and the doctor’s coat is striking: a doctor’s coat suggests a medical professional, while Larry is “a dim bulb whose chief interests are food and sex” (a formulation taken from a review of his comedy tour).
objectivity of his statement. A celebrity typically receives a considerable fee to appear in an ad, which might have caused him to present a more favorable statement about this drug than he would have done if he was not being paid to do so.

A different facilitating maneuver is the advertiser’s particular kind of language use in sections [4] and [5] of the advertisement. While the advertiser never claims that the statements in the text are actual quotes of Larry the Cable Guy, the paragraph printed on the right side of Larry’s photo – sections [4] and [5] in the transcript – is worded in the kind of Southern language that is typically used by Larry: “don’t be one of them folks who”. With this Southern kind of language use, the advertiser creates an atmosphere of authenticity, suggesting that these are Larry’s own arguments, and not just the advertiser’s. A part from the prototypical argumentative pattern that is not represented in the reconstruction in Figure 4.8 is the answer to the anticipated question whether there is no notable reason to assume that the endorser is quoted incorrectly or out of context. The advertiser’s particular kind of language use can be considered a presentational device that is employed to facilitate the answer that the claims in this section of the advertisement are indeed made by Larry himself.

When we include the anticipated answers that are not actually provided but are ambiguously anticipated or facilitated, we can make an adapted reconstruction of the advertisement, which looks as follows (Figure 4.9).
(1) (Patients suffering from frequent heartburn should use Prilosec OTC)

(1.1) Using Prilosec OTC has the desirable consequence that it prevents frequent heartburn by blocking the acid rather than only treating heartburn after one gets it [4, 5]

((1.1.1a) (That Prilosec OTC has this desirable consequence is an opinion in the field “medical products that Larry has experience with” held by Larry the Cable Guy)

[(((1.1a).1a).1a] [The claims in the advertisement were indeed made by Larry]

[(((1.1a).1a).1b] [Prilosec OTC has prevented frequent heartburn for Larry]

((1.1.1a') (Being an opinion in the field “medical products that Larry has positive experiences with” held by Larry indicates acceptability)

((((1.1a).1a').1) (Larry is an appropriate authority)

[(((1.1a').1.1a)] [Larry's experience with Prilosec OTC is representative for the experience that the reader will have with Prilosec OTC]

[(((1.1a').1.1a).1a] [Larry is a celebrity]

[(((1.1a').1.1a).1.1b] [Larry is someone the reader can relate to]

Figure 4.9. Adapted reconstruction of authority argumentation in the Prilosec OTC advertisement, integrating ambiguous anticipation maneuvers and facilitating maneuvers.
Strategically Anticipating Critical Questions concerning Experience-based Authority Argumentation

The first underlined argument – ((1).1.1a).1a, that the claims in the ad are indeed made by Larry, is not explicitly or implicitly stated, but is facilitated by the Southern kind of wording in the ad. This argument supports the minor premise of the authority argument: that this claim about Prilosec OTC is actually an opinion held by Larry in the field “medical products that Larry has positive experiences with”.

The italicized argument – ((1).1.1a).1b, that Prilosec OTC has prevented Larry’s heartburn, is not explicitly or implicitly stated in the advertisement either. Because of the statement that Larry is an actual user and the context of Larry endorsing the product, however, the stronger interpretation is activated that Prilosec OTC has actually worked for Larry, although there is reason to assume that we should actually go by the weaker meaning of the statement “actual user”. This ambiguous anticipation maneuver suggests the answer that Larry has experienced Prilosec OTC’s effectiveness himself, which in turn supports the minor premise of the authority argument ((1).1.1a).

The final three underlined arguments: (((1).1.1a’).1).1, (((1).1.1a’).1).1a, and (((1).1.1a’).1).1b, are neither explicitly nor implicitly stated in the ad either, but they facilitate Larry being considered representative. I have reconstructed the latter two arguments as coordinative argumentation, because they work together to support the idea that Larry’s experience is representative for the experience that the reader will have with Prilosec OTC. Argument 1a has to do with the topical choice to use a celebrity endorsement in general, while argument 1b has to do with the topical choice to particularly advance Larry the Cable Guy as an endorser, a typical American guy who moreover is overweight.

The critical question regarding there being no notable reason to assume that the endorser only makes a certain claim because he profits from it is not answered – and no maneuvers are used to ambiguously anticipate, or to facilitate, an answer to this question. Interesting to note here is that in some cases, anticipating certain critical questions might make it harder to anticipate others. An advertiser can focus his or her anticipating efforts on the representativeness of an endorser and therefore choose to use a celebrity, since readers might be less inclined to wonder whether this one person’s experience is relevant to them if they like the celebrity and can relate to him. But at the same time, the use of a celebrity will make it harder to anticipate critical questions concerning only claiming something because one profits from it, and for this reason, will also make it more questionable whether the celebrity actually experienced the desirable consequences of the drug that (s)he endorses.

4.5 Conclusion

In this chapter, I have discussed how an advertiser can strategically maneuver with the anticipation of critical questions. Because an advertisement is an implicit discussion, advertisers try to imagine how a consumer might respond to their argumentation, and take this consumer’s anticipated critical reaction into account in their advertisements. Anticipating critical questions concerning experience-based authority arguments in direct-to-consumer medical advertisements is a goal that an advertiser can accomplish by means of various kinds of maneuvers, both sound and fallacious. In order to explain what kinds of strategic maneuvers can be used by advertisers to anticipate critical questions
(research question 3 of this study), I distinguished three exemplary kinds of “anticipation maneuvers”: providing an answer to a critical question, exploiting ambiguity concerning an answer to a critical question, and facilitating an answer to a critical question.

In the analysis of the Prilosec OTC advertisement as a case in point, I have shown how the prototypical argumentative pattern presented in Chapter 3 can guide an analyst in the analysis of experience-based authority argumentation in a direct-to-consumer medical advertisement, and in the identification of certain anticipation maneuvers. Using the pattern as a template and replacing the generic statements from the pattern with the actual arguments from the advertisement, leads to a reconstruction in which it can be seen which argument is meant to provide an answer to which critical question. Comparing the reconstruction to the original pattern and pinpointing where the reconstruction deviates from the pattern, can help the analyst to identify which critical questions have been addressed by the advertiser and which of them have apparently not. By looking at the parts of the pattern that are present in the reconstruction, an analyst can identify the strategic maneuvers that provide satisfactory answers to critical questions. By focusing on the parts of the pattern that are not present in the advertisement, an analyst has a heuristic at his or her disposal to look for possible strategic maneuvers in the advertisement that are aimed at ambiguously anticipating or facilitating answers to critical questions.

In the Prilosec OTC analysis, all three aforementioned kinds of strategic maneuvers were used by the advertiser to anticipate one or more critical questions. Anticipating some of these critical questions proved to make it harder for advertisers to anticipate others. Focusing one's efforts on the representativeness of an endorser by advancing a celebrity endorser could be advantageous, as readers will be less inclined to wonder whether this one person's experience is relevant to them if they like the celebrity and can relate to him or her. But such a maneuver will simultaneously make it harder to anticipate the critical question concerning an endorser only claiming something because (s)he profits from it, since celebrities are commonly assumed to be paid to appear in an ad. Advertisers will have to choose between different tactics, focusing on the issues they believe to be the most important ones for their intended audience.

This case study concludes the analytical part of my research project, which consists of the argumentative characterization of the activity type of direct-to-consumer medical advertisements (Chapter 2); the stipulation of the soundness conditions for experience-based authority arguments in these advertisements and the resulting prototypical argumentative pattern (Chapter 3); and finally, in the current chapter, the discussion of a particular kind of strategic maneuvering in these advertisements and the illustration of how the aforementioned pattern can guide an analyst in the reconstruction of experience-based authority argumentation and the identification of strategic maneuvers aimed at anticipating particular critical questions. The soundness conditions that I specified on the basis of the argumentative characterization of the activity type, plus the discussion of how an advertiser can anticipate these soundness conditions by means of different kinds of strategic maneuvers, together contribute to the realization of the analytical aim of this dissertation: to provide an account of an advertiser's strategic maneuvering in direct-to-consumer medical advertisements in anticipating critical questions concerning experience-based authority argumentation.
The second part of this dissertation will put these analytical results to the test in two experimental studies. In that empirical part of the dissertation, I aim to establish whether readers of medical advertisements intuitively apply soundness conditions that are similar to the soundness conditions that I stipulated in the analytical part (Chapter 5), and whether these readers differentiate between sound and derailed anticipation maneuvers concerning experience-based authority argumentation (Chapter 6).
PART II

Two Experimental Studies concerning the Perceived Reasonableness and Effectiveness of Experience-Based Authority Argumentation in Direct-to-Consumer Medical Advertisements
5.1 Introduction

5.1.1 Aims of the Experiment
Up until this point, this dissertation has been concerned with analytical issues. I have provided an argumentative characterization of the communicative activity type of direct-to-consumer (DTC) medical advertisements in Chapter 2, and I have discussed the soundness conditions for experience-based authority argumentation in these advertisements and the resulting prototypical argumentative pattern in Chapter 3. I have focused on particular kinds of strategic maneuvering in DTC medical advertisements in Chapter 4, and have illustrated how the aforementioned pattern can guide an analyst in the reconstruction of experience-based authority argumentation in DTC medical advertisements and in the identification of strategic maneuvers aimed at anticipating critical questions.

The kind of validity that was at stake in the analytical part of this dissertation was instrumental validity, also known as problem validity (see van Eemeren & Grootendorst, 2004, p. 134): do the rules and criteria that one develops, accomplish what they are intended to do? In other words: to what extent do the soundness conditions that I presented, contribute to the goal of discussants resolving a difference of opinion on the merits? And to what extent can the argumentative pattern that I discussed, be of aid to an analyst as a tool for analyzing experience-based authority argumentation in DTC medical advertisements? The second part of this dissertation focuses on a different kind of validity: intersubjective validity, also known as conventional validity (see van Eemeren, Garssen & Meuffels, 2009, Section 1.4.2). To investigate whether theoretically motivated norms and criteria can be ascribed intersubjective validity, we need to carry out empirical research to find out to what extent real arguers accept these norms and criteria (van Eemeren, Garssen & Meuffels, 2009, pp. 27-28). While problem validity is a theoretical issue, intersubjective validity is an empirical issue.
In the second, empirical part of the dissertation, I aim to find out how ordinary language users evaluate experience-based authority arguments when they read a DTC medical advertisement.\textsuperscript{54} Do they intuitively apply soundness conditions that are more or less in line with the critical questions that I stipulated on theoretical and institutional grounds in Chapter 3? Or do they perhaps regard an authority argument as sound even when some of the critical questions that were established in this dissertation cannot be answered satisfactorily? By testing empirically whether the former or the latter is the case, I aim to establish whether the soundness conditions that I developed on an analytical basis are in agreement with the criteria that are used in readers’ actual evaluations of DTC medical advertisements.\textsuperscript{55}

In Chapter 3 of this dissertation, the soundness conditions for authority argumentation in general were made more specific in order for them to apply to the use of experience-based authority argumentation in the particular context of DTC medical advertisements. In this specification, the institutional pre-conditions of the argumentative activity type of DTC medical ads were taken into account. The specific soundness conditions for experience-based authority argumentation in DTC medical ads took the form of two main critical questions (CQ) with a list of corresponding subordinate critical questions (scq). The set of critical questions with their corresponding subordinate questions that was presented in Chapter 3 is as follows (when a question is indented, this means that it is \textit{subordinative} to a question above it):

CQ 1: Is the statement that using drug X has desirable consequence C really an opinion in the field "medical products that E has positive experiences with" held by endorser E?

\begin{itemize}
\item scq i: Is there no notable reason to assume that E has been quoted incorrectly or out of context?
\item scq ii: Is there no notable reason to assume that E did not actually experience desirable consequence C of drug X?
\item scq iii: Is there no notable reason to assume that E \textit{only} claims that drug X has desirable consequence C because (s)he profits from claiming this?
\end{itemize}

\textsuperscript{54} "Ordinary language users" are defined as people who do not have any specific expertise in the field of argumentation theory and have also not been systematically trained in this area (see van Eemeren, Garssen, & Meuffels, 2009, p. 31).

\textsuperscript{55} As van Eemeren, Garssen and Meuffels (2009, p. 27) explain, when empirical data indicate that certain rules are \textit{conventionally} valid or that they are not, this should not be used as proof or as a means of falsification of the \textit{instrumental} validity of those rules. When ordinary language users subscribe to certain rules, it cannot be deduced that these rules are therefore instrumental, and when ordinary language users prove to apply norms that diverge from theoretical rules, it cannot be deduced that therefore the theory is wrong. Instead, what we investigate by means of empirical research is how theoretical issues connect to argumentative reality.
CQ 2: Does being an opinion in the field “medical products that E has positive experiences with” held by endorser E indeed indicate acceptability?

scq iv: Is there no notable reason to assume that readers cannot reasonably be expected to deem E appropriate as an authority?

scq v: Is there no notable reason to assume that E’s experience with drug X is not representative of the experiences that targeted users generally will have with X?

The two main critical questions can be used by the discussants to determine whether an experience-based authority argument is sound, and the subordinate critical questions can be used by the discussants in order to determine whether the main critical questions can be answered satisfactorily. When one or more of the subordinate questions cannot be answered satisfactorily – meaning: that there is a notable indication for the discussants that something is amiss – this entails that the corresponding main critical question cannot be answered satisfactorily either.

The subordinate critical questions that will be put to the test in the current study, in order to establish whether or not they possess intersubjective validity – in other words: whether the criteria for the reasonableness of an argument that are reflected in these questions are similar to those used by ordinary language users – are questions ii and iii, printed in bold face in the overview above: is there no notable reason to assume that the endorser has not actually experienced the desirable consequence of the advertised product, and is there no notable reason to assume that the endorser only claims that the product is effective because (s)he profits from claiming this?56

To test the intersubjective validity of these two subordinate critical questions, I have presented US participants with artificial advertisements in which the reasonableness of experience-based authority arguments was manipulated by varying the information in

56 Although research concerning the particular criteria reflected in these two questions is limited and has not yet been carried out from an argumentation theoretical perspective, there are some clues in earlier quantitative research that these criteria indeed play a role for readers of advertisements. Till and Busler (2000) presented participants with fictional advertisements for different kinds of products that were promoted by different kinds of endorsers: either an athlete or an actor endorsed either a snack or an energy bar. For the snack, both endorsers were deemed equally credible, but the athlete was deemed more credible than the actor when he endorsed the energy bar, assumedly because it was more likely that the athlete would have personal experience with the energy bar. This might be an indication that readers take the question into account whether an endorser actually has personal experience with the product that (s)he endorses. Silvera and Austad (2004) presented participants with either an advertisement that included an endorsement by a famous actor for a kind of cologne, in which it was mentioned that the actor endorsed the cologne voluntarily without receiving payment; or an advertisement featuring the actor in which it was mentioned that the actor received his standard endorsement fee for his endorsement of the cologne; or an advertisement for the cologne in which no endorsement was included. When asked whether they thought that the endorser (or in case of the advertisement without an endorsement: “the average person”) actually viewed the cologne as a good product, participants judged the paid endorser to like the cologne significantly less than the “average person”, while no significant difference was found between the unpaid endorser and the “average person”. This might be an indication that ordinary readers of advertisements indeed find it important whether or not an endorser is compensated for his or her endorsement.
these ads that determines whether or not questions ii and iii are satisfactorily answerable: information about the endorser having or not having experienced the desirable effect of the advertised product, and information about the endorser being or not being compensated for appearing in the advertisement.

The first reason for selecting these very two questions to be tested in the current experiment, is that they make up a well-rounded combination: the answers to both questions need to be combined in order to resolve the issue of whether E’s opinion really falls in the field of “medical products that E has positive experiences with”. Secondly, out of the entire set of questions, these are the ones that are most suitable for manipulation in an empirical study. Whether someone has or has not experienced the desirable effect of a product and whether someone is or is not compensated to appear in an advertisement are elements that can be represented in an advertising text by simply mentioning them straightforwardly. For the other questions, such as the question concerning E being quoted correctly, more background information would be required for participants to determine whether they can in fact be answered satisfactorily, which would call for a far more complicated experimental set-up. For this reason, within the bounds of this dissertation I deemed it wise to restrict the empirical part of the dissertation to the two subordinate critical questions for which the issue whether or not they are satisfactorily answerable can be straightforwardly represented in artificial advertisements, leaving the remaining critical questions open for further research in follow-up experiments.

Perceived Reasonableness

The subordinate critical questions that were empirically tested are problem valid in the sense that they constitute normative grounds to (analytically) establish when the argument scheme of experience-based authority argumentation can be considered to be correctly applied in the context of a direct-to-consumer medical advertisement. If the results of this research show that advertisements are perceived as less reasonable when these critical questions cannot be answered satisfactorily, then this would indicate that the questions are also intersubjectively valid, meaning that they indeed play a certain role in readers’ evaluations of authority argumentation in DTC medical advertisements.

Testing whether these two critical questions indeed play a role in the evaluation of DTC medical advertisements is a necessary step for empirically studying the perceived reasonableness and effectiveness of sound versus fallacious anticipation maneuvers, which will be done in Chapter 6. In order to be able to study the effects of maneuvers that are aimed at anticipating particular critical questions, it should first be clear whether there is indeed a difference between the perceived reasonableness of arguments in which a critical question is satisfactorily answerable and arguments in which it is not. This first step is in line with my research question 4:

Are the analytically established soundness conditions regarding experience-based authority argumentation in direct-to-consumer medical advertisements in line with evaluation criteria that are applied by readers of these advertisements?

The reason why this research question should be answered before turning to anticipation maneuvers is the following: in order to test whether maneuvers aimed at anticipating
particular critical questions are successful in achieving this aim, it is necessary to know whether there is a difference between the perceived reasonableness of sound arguments, in which particular critical questions can be answered satisfactorily, and fallacious arguments, in which they cannot. If, regarding one particular critical question, there is no substantial difference in the perceived reasonableness of sound arguments and that of fallacious arguments, then we may assume that this particular question does not play a substantial role in readers’ evaluations of DTC medical advertisements, and it would make no sense to test the effect of strategic maneuvers concerning the anticipation of that question. For this reason, I started off with the experiment in the current chapter (experiment I) that concerns clear-cut cases of sound arguments and fallacies, before turning to the follow-up experiment concerning (more subtle) anticipation maneuvers (experiment II), which will be discussed in Chapter 6.

**Perceived Effectiveness**

Although the chief interest of this research is in the perceived *reasonableness* of the advertisements – to investigate whether the findings from the analytical part of this dissertation are not just problem valid, but also intersubjectively valid – a secondary aim of this study is to investigate whether there is a relation between perceived reasonableness and perceived effectiveness of experience-based authority arguments in DTC medical advertisements, as might theoretically be expected. From a dialectical perspective, we may assume that if discussants are rational human beings, an outcome that is reached by means of resolving a difference of opinion on the merits, making use of sound argumentation, should be considered as more effective than an outcome that is reached by means of fallacious argumentation.

In previous studies, this expectation proved to be justified. O’Keefe (2006), for instance, conducted several meta-analytic reviews of experiments in the field of persuasion effects research, to investigate the relationship between normatively sound argumentative practice and persuasive success. His conclusion was that generally, “adherence to pragma-dialectical standards will, if anything, likely enhance rather than diminish persuasive success” (O’Keefe, 2006, p. 240).

Moreover, in an experiment conducted by van Eemeren, Garssen and Meuffels concerning the perceived reasonableness and effectiveness of *ad hominem* fallacies, a covariance analysis was executed to investigate the relationship between the participants’ reasonableness and effectiveness judgments of the discussion moves in the experiment (van Eemeren, Garssen, & Meuffels, 2007; Meuffels, 2006). The results indicated a correlation between perceived reasonableness and perceived effectiveness: when the factor “reasonableness” was statistically filtered out, the variance in effectiveness judgments also

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57 Although some authors use the words “persuasive success” or “persuasiveness” to refer to the idea of an antagonist being convinced by a protagonist’s argumentation, I prefer the concept of “effectiveness”. Effectiveness could be regarded as the pragma-dialectical alternative to the term “persuasiveness” that is commonly used in the social sciences. I regard the difference between the two concepts to be the following: an argumentative message can be *persuasive* due to all sorts of communicator characteristics, message characteristics and receiver characteristics, but an argumentative message is only *effective* if the interactional effect of “accepting” on the part of the antagonist is realized as a result of the protagonist’s argumentative moves.
disappeared. For instance: indirect personal attacks were judged to be considerably less effective than reasonable arguments by the participants, but when the effect of the variable “reasonableness” was filtered out by means of a co-variance analysis – meaning that just for that analysis, from a statistical point of view the indirect personal attacks and the reasonable arguments were considered as equally reasonable – no significant difference could be found anymore between the effectiveness of the two types of moves.

Finally, the findings of another study conducted by van Eemeren, Garssen and Meuffels might provide one of the reasons – although there could of course be several other ones – why reasonable moves were found to be more effective than fallacious ones: ordinary arguers have a preference for reasonableness over unreasonableness (van Eemeren, Garssen, & Meuffels, 2012a). The authors found that ordinary arguers actually prefer that discussion contributions that do not comply with shared standards of critical discussion will be regarded as unreasonable, and they prefer that discussion parties who offend these standards will be held accountable for this (pp. 49-50). This preference for holding unreasonable arguers accountable could result in a decrease in the effectiveness of an argumentative message when that message contains one or more fallacies. But does this work the same way for advertisements, or are ordinary readers of these advertisements less concerned with reasonableness than they would be in other argumentative activity types? Does the reasonableness of the argumentation in an advertisement provide a substantial contribution to how effective these advertisements are?

Effectiveness is also important in light of the kind of strategic maneuvers that will be studied in the experiment reported in Chapter 6: exploitations of ambiguity concerning an answer to a critical question, in which a certain advertising claim activates a strong interpretation which entails that a critical question can be answered satisfactorily, while there is reason to assume that we should in fact go by the weaker meaning of the claim that indicates that the critical question should be answered unsatisfactorily. Besides studying their perceived reasonableness, my aim is to find out whether these ambiguous anticipation maneuvers are perceived to be effective.

The assumed reason for advertisers to use these ambiguous anticipation maneuvers in practice is that they – from an advertiser’s perspective – appear to work. If these maneuvers would not actually contribute to an advertiser’s rhetorical goal of convincing a consumer that (s)he should use a certain medical product, then it would be strange to find these maneuvers in empirical reality, especially when taking into account that pharmaceutical companies spend large sums of money on DTC medical advertisements. But is the effectiveness of ambiguous anticipation maneuvers really different from the effectiveness of maneuvers in which the satisfactory or unsatisfactory answer to a critical question is provided straightforwardly? In order to be able to study this difference in effectiveness in experiment II, the current experiment will first have to reveal whether there is indeed a difference in effectiveness when a critical question can be answered satisfactorily compared to when it cannot.

A second aim of this study, therefore, is to find out whether advertisements that are perceived as more reasonable are also perceived as more effective. “More effective” is taken to mean here that as a result of the argumentation, these ads are more likely to realize the consecutive perlocutionary consequence that an advertiser conventionally
wants to achieve in this communicative activity type: that the reader will ask his or her doctor for the advertised drug.

5.1.2 Hypotheses

Perceived Reasonableness
In the previous section, I have explained the concepts of theoretically established critical questions, perceived reasonableness, and perceived effectiveness. The relationship between these concepts is hypothesized to be as follows.

First, if the two subordinate critical questions at issue are indeed intersubjectively valid, advertisements in which satisfactory answers to these questions are provided should be perceived as more reasonable than advertisements in which unsatisfactory answers are provided.58 I expect there to be a relationship between the theoretical (un)reasonableness of experience-based authority arguments in DTC medical advertisements on the one hand, and the perceived (un)reasonableness of these arguments on the other hand: I expect that when an argument can be considered a fallacy from a theoretical perspective, i.e., when a critical question pertaining to that argument is answered unsatisfactorily, it will be perceived as less reasonable than when a satisfactory answer to that critical question is provided.59

Corresponding to the two critical questions mentioned in Section 5.1.1, two hypotheses relating to reasonableness were tested. They concern the difference in perceived reasonableness between authority arguments for which a satisfactory answer to a critical question is provided on the one hand, and authority arguments for which an unsatisfactory answer to a critical question is provided on the other hand. These two hypotheses concerning reasonableness are as follows:

\[ H_1 \text{ Authority arguments in direct-to-consumer medical advertisements are perceived as } more \text{ reasonable when it is clear from the advertisement that an endorser } has \text{ experienced the desirable effect of the advertised product, than when it is clear from the advertisement that (s)he } has \text{ not.} \]

58 The words “be perceived as more reasonable” should be interpreted as “receive a higher score on a gradual scale of reasonableness” (the scale on which I will measure my participants’ reasonableness judgments will be further explained in Section 5.2.4). In this sense, I use the words “more reasonable” as equivalent to the words “less unreasonable”: I do not mean to say that advertisements in which satisfactory answers are provided will be judged as reasonable in an absolute sense. The same holds for the words “less reasonable”: this expression should be interpreted as equivalent to “more unreasonable”, without reference to reasonableness or unreasonableness in an absolute sense.

59 Providing an unsatisfactory answer to a critical question, and nonetheless still maintaining one’s argument, is a violation of the Argument Scheme Rule. Because an advertisement is an implicit discussion, withdrawing one’s argument is not possible, so it might seem unfair to consider the fact that an advertiser maintains his argument as unreasonable. However, we consider the antagonist’s role in this discussion to be represented by the anticipated consumer’s criticism that an advertiser takes into account (see Chapter 2). Therefore, we can consider an advertiser’s choice to put forward an argument knowing that one of the critical questions corresponding to that argument has to be answered unsatisfactorily as the equivalent of a refusal in an explicit discussion to withdraw an unsound argument.
**H₂** Authority arguments in direct-to-consumer medical advertisements are perceived as more reasonable when it is clear from the advertisement that an endorser is not compensated for claiming that the advertised product is effective, than when it is clear from the advertisement that (s)he is compensated.

H₁ and H₂ concern relative reasonableness perceptions: they revolve around a comparison between the reasonableness scores of messages in which a critical question has been answered satisfactorily, and the reasonableness scores of messages in which a critical question has been answered unsatisfactorily. I have deliberately chosen not to include hypotheses concerning absolute perceived reasonableness or unreasonableness. I do not hypothesize that an authority argument in which a critical question is unsatisfactorily answered will be considered absolutely unreasonable (with scores of less than four on a seven-point scale)⁶⁰, although seen from a theoretical perspective, advertisements in which a critical question has been answered unsatisfactorily should not just be considered as less reasonable, but should be considered as unreasonable, since an unsatisfactory answer to a critical question would mean that the Argument Scheme Rule has been violated. There are two reasons why I have chosen not to include such “absolute” hypotheses: results concerning absolute (un)reasonableness are not necessary for the aim of this study, and absolute reasonableness scores might be negatively influenced by the particular characteristics of the argumentative activity type.

First, it is not necessary for the aim of this study to determine whether certain arguments are perceived as reasonable or unreasonable in an absolute sense. The purpose of this experiment is to answer the question whether two particular subordinate critical questions do or do not play a role in the evaluation of experience-based authority argumentation in the activity type of DTC medical advertisements. As was mentioned in Section 5.1.1, an answer to that question is necessary to be able to conduct a second experiment in which the effects of certain strategic maneuvers will be tested. For this purpose, it is only necessary to determine whether there is a significant difference in reasonableness scores between messages in which a satisfactory answer is provided and messages in which an unsatisfactory answer is provided, not whether messages for which an unsatisfactory answer is provided are considered as unreasonable regardless.

The second reason why I have chosen not to include “absolute” hypotheses, is that the advertising context in this research might negatively influence the perceived reasonableness of all argumentation occurring within this argumentative activity type, which might cause the reasonableness scores reported in this particular study to be lower than those reported in similar research conducted in other activity types than the advertising context. When people read advertisements and know that an attempt is being made to entice them into purchasing a product, this might lead them to be more

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⁶⁰ As will be explained in Section 5.2.4, I will measure the perceived reasonableness and effectiveness by asking respondents to indicate on a seven-point scale to what extent they agree with a particular statement concerning the reasonableness or effectiveness of the argumentation in the advertisement, with 1 being “disagree very strongly” and 7 being “agree very strongly”. A score of 4 means that a respondent judges something to be unreasonable nor reasonable (or ineffective nor effective), with scores below 4 indicating that an ad is perceived as unreasonable (or ineffective) and scores above 4 indicating that an ad is perceived as reasonable (or effective).
mistrustful of the claims they encounter. Despite the fact that a message contains the explicit statement that an endorser has actually experienced the desirable effect of the advertised drug, readers might still doubt whether this is really the case.

If reasonableness scores would indeed be negatively influenced by the advertising context, then one might expect that this would have an effect on all of the experimental conditions that are tested: the reasonable arguments would be considered less reasonable than reasonable arguments outside of the advertising context, whereas the unreasonable arguments would be considered even more unreasonable than in other contexts. When only the relative reasonableness perceptions of sound versus fallacious arguments are put to the test, a negative contextual influence on reasonableness scores is not problematic: if the scores of both sound and fallacious arguments are equally affected, then we might expect the difference in perceived reasonableness between sound and fallacious arguments to remain the same.

If, on the other hand, we would test absolute reasonableness perceptions and the results of the research would show that all of the arguments, both the sound and the fallacious ones, would be considered unreasonable in an absolute sense (with scores of less than four on a seven-point scale), we would in fact not be able to pinpoint to what extent this perceived unreasonableness would be a result of the theoretical fallaciousness of the arguments, and to what extent it would be caused by participants’ mistrustful attitude towards advertisements. These considerations have led me to limit myself to hypotheses concerning the relative perceived reasonableness scores of sound arguments compared to fallacious arguments.

**Perceived Effectiveness**

Besides this study’s goal to investigate perceived reasonableness, a secondary aim of this study is to determine whether sound arguments are more effective than fallacious ones (see Section 5.1.1). Earlier research has indicated that reasonable arguments are generally more effective than fallacious arguments (van Eemeren, Garssen & Meuffels, 2007; O’Keefe, 2006). To see whether this relationship between reasonableness and effectiveness also holds in the particular context of experience-based authority argumentation in DTC medical advertisements, two further hypotheses regarding effectiveness can be formulated parallel to the first two hypotheses. These hypotheses are presented below.

**H₃** Authority arguments in direct-to-consumer medical advertisements are perceived as more effective when it is clear from the advertisement that an endorser has experienced the desirable effect of the advertised product, than when it is clear from the advertisement that (s)he has not.

**H₄** Authority arguments in direct-to-consumer medical advertisements are perceived as more effective when it is clear from the advertisement that an endorser is not compensated for claiming that the advertised product is effective, than when it is clear from the advertisement that (s)he is compensated.
Chapter 5

The remainder of this chapter will be dedicated to the method and results of the experiment in which the four abovementioned hypotheses were put to the test.61

5.2 Method

5.2.1 Independent Variables: Two Soundness Conditions

The four hypotheses presented in Section 5.1.2 were empirically tested by looking at the difference in perceived reasonableness and perceived effectiveness between direct-to-consumer medical advertisements in which a particular critical question is answered satisfactorily versus direct-to-consumer medical advertisements in which it is answered unsatisfactorily. This was investigated for the aforementioned two subordinate critical questions concerning experience-based authority argumentation: is there no notable reason to assume that the endorser has not actually experienced the desirable consequence of the advertised product, and is there no notable reason to assume that the endorser only claims that the product is effective because (s)he profits from claiming this? For ease of reference I will henceforth refer to the former subordinate critical question as the “Desirable Consequence question”, and to the latter as the “Only for Profit question”. In line with these two questions, the following two independent variables were manipulated in the research:

1. **Experienced (E):** Whether or not the endorser is claimed to have experienced the desirable consequence of the advertised drug

2. **Not Compensated (N):** Whether or not the endorser is claimed to be compensated for appearing in the advertisement

Both of these independent variables have two levels:

1a. **Experienced Yes:** It is clear from the advertisement that the endorser has experienced the desirable effect of the advertised product

1b. **Experienced No:** It is clear from the advertisement that the endorser is not an actual user of the advertised product

2a. **Not Compensated Yes:** It is clear from the advertisement that the endorser was not compensated for claiming that the advertised product is effective

2b. **Not Compensated No:** It is clear from the advertisement that the endorser was compensated for claiming that the advertised product is effective

These independent variables were manipulated by including a statement in the small print at the bottom of the artificial advertisements that were used in the study, that mentioned whether the advertised product had actually worked for the endorser and whether the

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61 This experiment has been approved by the Ethics Committee of the Faculty of Humanities of the University of Amsterdam (case number 2013-18).
endorser was compensated for appearing in the advertisement (see Section 5.2.3 for a more detailed discussion of the experimental messages that were used).

The different levels of these independent variables correspond to satisfactory or unsatisfactory answers to the Desirable Consequence question and the Only for Profit question. This correspondence might not immediately be clear at first glance, so I will clarify the levels of the independent variables a bit further here. Regarding level 1a (Experienced Yes): when it is clear from an advertisement that the endorser has experienced the desirable effect of the advertised product, then there is no notable reason to assume that (s)he has not actually experienced the desirable effect of the advertised product, which is, naturally, a satisfactory answer to the Desirable Consequence question. The opposite is the case for variable level 1b (Experienced No): when it is clear from the advertisement that the endorser is not an actual user of the product, then this is a notable reason to assume that (s)he has not experienced the product's effectiveness, which is an unsatisfactory answer to the same Desirable Consequence question.

For independent variable 2, when it is clear from the advertisement that an endorser is not compensated for appearing in the ad (level 2a, Not Compensated Yes), then of course there cannot be any reason anymore to assume that (s)he only claims something because (s)he is compensated for this, which automatically entails a satisfactory answer to the Only for Profit question. When it is clear from the advertisement that the endorser is compensated to appear in the ad (level 2b, Not Compensated No), then in the absence of additional information about the endorser’s motives, we cannot say that there is no notable reason to assume that (s)he only makes the claim at issue because (s)he profits from this, so the Only for Profit question would then have to be answered unsatisfactorily.

These levels of the independent variables do not represent the only possible satisfactory and unsatisfactory answers to these subordinate critical questions – for instance: a satisfactory answer to the Only for Profit question could also be that even though the endorser is compensated for appearing in the ad, this is no reason to assume that this is the only reason for making his or her claim, because (s)he made the same claim in the past when (s)he was not yet compensated for it. These particular answers, however, were selected as the most clear-cut indications for participants in the experiment that a particular critical question was answered satisfactorily or unsatisfactorily. In the absence of any other evidence about the endorsers in the advertisements – as will be explained below, the advertisements were fictional, so the endorsers did not actually exist – participants were assumed to interpret the fact that an endorser is compensated as an indication that there might be something amiss, which would make the argumentation less reasonable.

5.2.2 Design: Multiple Message Design with Repeated Measurements
The two independent variables, which each have two levels, were operationalized in artificial DTC medical advertisements consisting of 90 to 100 words. For my four experimental conditions, four different types of ads were used in the research, each of these types instantiating a different combination of the two levels of the independent variables. The four types of experimental messages that were used, are represented in Table 5.1.

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62 See Appendix A for sample messages.
Table 5.1. Types of experimental messages.

As can be seen from Table 5.1, I have chosen to use a *multiple message design* in this research, which means that participants do not receive just one, but several (in this case: three) different experimental messages for each experimental condition. By using several instantiations of the same combination of variable levels, a multiple message design enhances both the internal and the external validity of the experiment. If only one advertisement per condition would be used, then it might be the case that particular idiosyncratic characteristics of that advertisement which have nothing to do with the experimental condition that the advertisement represents, such as the particular type of drug it promotes, could provide an alternative explanation for how that experimental condition is perceived by the participants. By using not one, but *three* messages per experimental condition, the influence of the particular, “random” characteristics of advertisements was taken into consideration. Using this design, the variance between the different messages within one experimental condition could be treated as “error” in the statistical analysis of the results, which means that these differences were taken into account in determining the significance of a particular result. Besides the four types of experimental messages listed in Table 5.1, two filler messages were included:

**Ad Type “Reasonable Filler”:** one message in which the experience-based authority argumentation is substituted by a sound symptomatic argument based on clinical research

**Ad Type “Fallacious Filler”:** one message in which the experience-based authority argumentation is substituted by an *argumentum ad populum* fallacy

These two filler messages were included to reduce the chances that participants could guess what the aims of the experiment were, thereby preventing them from only providing answers in line with what they believed the experimenter expected of them. If participants know the aim of an experiment, they might answer questions in a different manner than when they are naïve as to what it is that the researcher wants to learn from them. Such an *S-bias* (“subject bias”) might provide alternative explanations for the results that are
obtained, which could decrease the internal validity of the experiment (Jung, 1971). To exclude alternative explanations as much as possible in order to guarantee the internal validity, it is important to reduce the S-bias by attempting to keep participants in the dark as to the goal of the experiment. Furthermore, the results concerning the filler messages were used as a benchmark – a gate-keeper – for the validity of my experiment. This was done by checking whether the filler message containing the *ad populum* fallacy was indeed perceived as significantly less reasonable than the filler message containing a sound argument, as might be expected from earlier research (see van Eemeren, Garssen & Meuffels, 2009, pp 182-185).

In addition to the multiple message design discussed above, a repeated measurements design was used, meaning that each individual participant was presented with more than one message. Rather than asking each participant to rate only one constructed advertisement, each participant was asked to answer questions about several advertisements. It was not feasible to ask all participants to rate all advertisements in the experiment, as this would be too taxing. In a pre-test containing twelve advertisements, several participants indicated that after approximately the eighth advertisement they could not properly stay focused on the task anymore. This might be due to the length of the messages – all are advertisements of 90 to 100 words in length – and the fact that invariably the same five questions are asked about each message.

In order not to make the task too demanding for the participants, two different versions of the questionnaire were created, each consisting of only half of the experimental advertisements. This means that not all participants were presented with exactly the same combinations of the levels of the independent variables. Half of the respondents received messages of the types Unpaid User and Paid User (plot I), while the other half of the respondents received messages of the types Unpaid Nonuser and Paid Nonuser (plot II). This means that my two plots of respondents were nested within the factor Experienced. Participants were randomly assigned to one of the two plots. All respondents received the same two filler messages. In this configuration, each participant was asked to answer questions about eight advertisements in total. The division of message types over the two plots is shown in Table 5.2.

63 In a pre-test where I nested the plots within the factor Not Compensated rather than within the factor Experienced – meaning that participants either got to judge all ads in which the endorser was compensated, or all ads in which the endorser was not compensated, so they did not get to compare both types – some of my pre-testers indicated that they had not noticed that anything was mentioned about the endorser being compensated or not. I tried to remedy this problem by first of all altering the wording of the small print that mentioned whether or not an endorser was compensated, and secondly by nesting the plots within the factor “Experienced” instead, so that the participants either got to judge all ads where the endorser experienced the product’s effectiveness, or all ads where the endorser did not experience the product’s effectiveness. In this division of the two plots, which I used for the actual experiment, participants got to judge advertisements in which the endorser was compensated AND advertisements in which the endorser was not compensated, so that they were able to contrast both kinds.

64 This has resulted in the following design: the random factor ”advertisements” is nested within the interaction of the fixed factors ”Experienced” and ”Not Compensated”. The random factor ”respondents” is nested within the fixed factor ”Experienced”. The levels of the random factor ”respondents” are divided among the levels of the fixed factor ”Experienced”, forming two plots of respondents, with ”Experienced” as
Table 5.2 Two plots of the research.

5.2.3 Materials: Artificial Advertisements
To ensure that all experimental messages were clear-cut cases of the two specified critical questions being satisfactorily or unsatisfactorily answered – in order to maximize the internal validity of the experiment – the instantiations were artificial. They were constructed, hypothetical approximations of direct-to-consumer medical advertisements rather than real advertisements, to limit the chances of spurious variables influencing the participants’ reasonableness judgments. By keeping other factors – such as visual images and safety information – as uniform as possible over the whole set of artificial advertisements, it can be assumed with more certainty that the reasonableness and effectiveness judgments of the participants were indeed driven by the manipulation of the independent variables, rather than by other aspects of the advertisements that are irrelevant for the purposes of the experiment. Figure 5.3 represents one of the messages used in the experiment: an advertisement of the Ad Type “Unpaid User”.

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a between-subjects factor. Within a single plot, all respondents are crossed with all levels of the fixed factor “Not Compensated” (within-subjects factor) and with all levels of the random factor “advertisements” (within-subjects factor).
Before I asked my doctor about **Sternutam**, my allergies controlled my life.

Ask your doctor too!

- Margaret Walker, Lexington, MA

**Sternutam** *(sternum* _**tax**, 100 mg tablets)*

is prescribed to provide relief from seasonal allergy symptoms

Talk to your doctor about your symptoms and find out if Sternutam is right for you.

Available by prescription only.

**Sternutam**

<www.sternutam.com>

1-800-STERNUTAM

©2014 B Tier Pharma, Inc.

Margaret Walker has achieved a significant decrease of seasonal allergy symptoms after using Sternutam. She was not compensated for appearing in this advertisement. Individual results may vary.

Figure 5.3. Sample message of the Ad Type “Unpaid User”. Represented in a reduced size; in the experiment participants were presented with the advertisements in A4 size.
Using constructed, hypothetical messages rather than real advertisements may to some degree have limited the ecological validity of the results obtained in this research, as it could make it harder to generalize the results. Because no other research has yet been carried out to test these particular independent variables, however, I have chosen to favor internal validity over ecological validity in the current study.

To ensure the ecological validity as much as possible, the lay-out and formulation of the advertisements were based on actual DTC medical advertisements. To enhance the internal validity, information from the actual advertisements that might provide alternative explanations of respondents’ reasonableness and effectiveness judgments was left out of the artificial advertisements as long as this information was not necessary for the respondents’ correct understanding of the advertisements and as long as this removal did not make the advertisements too unrealistic. For instance, no other argumentation was included besides the authority argumentation that was studied – except for the other types of arguments tested in the fillers – but information that is required by US law, such as instructions on how to report negative side-effects to the FDA, could not be left out.  

Eight different advertisement templates were constructed, promoting eight different fictitious drugs. The advertisements representing my four experimental conditions all featured a fictitious endorser who promoted the product with a quote such as “I used to suffer from heartburn day after day... So I asked my doctor about Pralivia. Ask your doctor too!” The quote was followed by a fictitious name and a place of residence, and accompanied by a photograph of the supposed endorser. Furthermore, to operationalize my two independent variables, the small print at the bottom of the advertisement was formulated in such a way that it was clear whether or not the endorser had actually experienced the desirable effect of the advertised product and whether or not the endorser was compensated for appearing in the advertisement.  

To ensure that all the text would be readable for the participants, the small print was represented in font size 10, although actual advertisements sometimes feature smaller font sizes. This is another decision that was based on the choice to favor internal validity over ecological validity in the current study. Because of legal requirements, the small print featured the statement “individual results may vary” every time that this small print included concrete references to the effectiveness of a product for a particular user.

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65 See Federal Drug Administration (n.d.) for the mandatory guidelines concerning DTC medical advertisements in the United States.

66 The filler messages did not feature an endorser, so they did not feature names or places of residence, and their small print did not include the operationalization of the independent variables. Instead, advertisement “Reasonable Filler” included the claim that clinical research had shown the drug to be effective, with more information about that clinical research in the small print, and advertisement “Fallacious Filler” included the claim that over one million people asked their doctors about the drug, with more information about the source of that number in the small print. The filler advertisements also included a photograph of a person. In a pre-test where the filler messages included photographs of pills rather than people, some testers indicated that they perceived the ads with photographs of pills in them to be considerably less entertaining than those with photographs of people in them, so in order to make the whole set of eight advertisements as uniform as possible, the photographs of pills in the filler ads were replaced by photographs of (not further specified) people.
The names, places of residence and photographs were different for each of the eight advertisement templates. The photographs were purchased out of a larger pool of pre-existing stock photographs; they all featured professional models. The photographs were selected based on the principle that the photos needed to be more or less similar to each other in terms of characteristics such as gender, race, pose, facial expression and background, in order to make the influence of these characteristics on participants’ reasonableness and effectiveness judgments negligible for all advertisements. Based on this principle, eight photographs were selected that depicted Caucasian women against a white background, with a smiling, but not overly excited facial expression and a neutral pose – photographs featuring models cheering or putting their thumbs up, for instance, were excluded.

Of each advertisement template, two versions were created, corresponding to two different experimental conditions. Advertisements “Unpaid User 1” and “Unpaid Nonuser 1”, for example, were identical except for the manipulation of the independent variable “Experienced”: whether it is clear from the advertisement that the endorser has experienced the desirable effect of the advertised product. In advertisement “Unpaid User 1”, it was stated in the small print that the endorser had achieved a significant decrease of heartburn pain after using the drug Pralivia, while in advertisement “Unpaid Nonuser 1” it was stated that the endorser was not an actual user of Pralivia. Per plot of the experiment only one version of every advertisement template was included, so that individual participants were never exposed to two versions of the same template.

Figure 5.4 shows an overview of the characteristics of the experimental messages used. In Appendix A, sample messages for each of the experimental conditions in experiment I, as well as the two filler messages, are provided.

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67 An exception was made for the two filler advertisements, which had only one version each. Both of the filler messages were included in both of the plots of the experiment.
<table>
<thead>
<tr>
<th>Ad *</th>
<th>Experimental Condition</th>
<th>Fictitious Drug</th>
<th>Plot</th>
<th>Fictitious Endorser</th>
<th>Endorsement</th>
<th>Small print</th>
</tr>
</thead>
<tbody>
<tr>
<td>UU1</td>
<td>Unpaid User: experience-based authority argument, product was effective, not compensated</td>
<td>Pralivia (heartburn)</td>
<td>I</td>
<td>Joyce Thompson, Greenville, GA</td>
<td>I used to suffer from heartburn day after day... So I asked my doctor about Pralivia. Ask your doctor too!</td>
<td>Joyce Thompson has achieved a significant decrease of heartburn pain after using Pralivia. She was not compensated for appearing in this advertisement. Individual results may vary.</td>
</tr>
<tr>
<td>UU2</td>
<td>Unpaid User: experience-based authority argument, product was effective, not compensated</td>
<td>Sternutam (seasonal allergies)</td>
<td>I</td>
<td>Margaret Walker, Lexington, MA</td>
<td>Before I asked my doctor about Sternutam, my allergies controlled my life. Ask your doctor too!</td>
<td>Margaret Walker has achieved a significant decrease of seasonal allergy symptoms after using Sternutam. She was not compensated for appearing in this advertisement. Individual results may vary.</td>
</tr>
<tr>
<td>UU3</td>
<td>Unpaid User: experience-based authority argument, product was effective, not compensated</td>
<td>Somnum (trouble sleeping)</td>
<td>I</td>
<td>Jennifer Nelson, Madison, KS</td>
<td>All my life, I’ve had trouble sleeping. Until I asked my doctor about Somnum. Ask your doctor too!</td>
<td>Jennifer Nelson has achieved a significant improvement in her ability to fall asleep after using Somnum. She was not compensated for appearing in this advertisement. Individual results may vary.</td>
</tr>
<tr>
<td>UN1</td>
<td>Unpaid Nonuser: experience-based authority argument, has not used product, not compensated</td>
<td>Pralivia (heartburn)</td>
<td>II</td>
<td>Joyce Thompson, Greenville, GA</td>
<td>If you suffer from heartburn day after day... Ask your doctor about Pralivia!</td>
<td>Joyce Thompson is not an actual user of Pralivia. She was not compensated for appearing in this advertisement.</td>
</tr>
<tr>
<td>UN2</td>
<td>Unpaid Nonuser: experience-based authority argument, has not used product, not compensated</td>
<td>Sternutam (seasonal allergies)</td>
<td>II</td>
<td>Margaret Walker, Lexington, MA</td>
<td>If your allergies seem to be controlling your life... Ask your doctor about Sternutam!</td>
<td>Margaret Walker is not an actual user of Sternutam. She was not compensated for appearing in this advertisement.</td>
</tr>
<tr>
<td>UN3</td>
<td>Unpaid Nonuser: experience-based authority argument, has not used product, not compensated</td>
<td>Somnum (trouble sleeping)</td>
<td>II</td>
<td>Jennifer Nelson, Madison, KS</td>
<td>If you have trouble sleeping... Ask your doctor about Somnum!</td>
<td>Jennifer Nelson is not an actual user of Somnum. She was not compensated for appearing in this advertisement.</td>
</tr>
<tr>
<td>PU4</td>
<td>Paid User: experience-based authority argument, product was effective, compensated</td>
<td>Spirant (asthma)</td>
<td>Elaine Simmons, Bristol, CO</td>
<td>My asthma used to make life difficult... So I asked my doctor about Spirant. Ask your doctor too!</td>
<td>Elaine Simmons has achieved a significant decrease of airway constriction and inflammation after using Spirant. She was compensated for appearing in this advertisement. Individual results may vary.</td>
<td></td>
</tr>
<tr>
<td>PU5</td>
<td>Paid User: experience-based authority argument, product was effective, compensated</td>
<td>Adipem (high cholesterol)</td>
<td>Barbara Clark, Dayton, IA</td>
<td>I was worried about my cholesterol… So I asked my doctor about Adipem. Ask your doctor too!</td>
<td>Barbara Clark has achieved a significant decrease of cholesterol after using Adipem. She was compensated for appearing in this advertisement. Individual results may vary.</td>
<td></td>
</tr>
<tr>
<td>PU6</td>
<td>Paid User: experience-based authority argument, product was effective, compensated</td>
<td>Crotaphos (migraines)</td>
<td>Lisa King, Ashland, OR</td>
<td>I wanted relief from my migraine pains… So I asked my doctor about Crotaphos. Ask your doctor too!</td>
<td>Lisa King experienced a significant decrease of migraine pains after using Crotaphos. She was compensated for appearing in this advertisement. Individual results may vary.</td>
<td></td>
</tr>
<tr>
<td>PN4</td>
<td>Paid Nonuser: experience-based authority argument, has not used product, compensated</td>
<td>Spirant (asthma)</td>
<td>Elaine Simmons, Bristol, CO</td>
<td>If your asthma makes life difficult... Ask your doctor about Spirant!</td>
<td>Elaine Simmons is not an actual user of Spirant. She was compensated for appearing in this advertisement.</td>
<td></td>
</tr>
<tr>
<td>PN5</td>
<td>Paid Nonuser: experience-based authority argument, has not used product, compensated</td>
<td>Adipem (high cholesterol)</td>
<td>Barbara Clark, Dayton, IA</td>
<td>If you are worried about your cholesterol… Ask your doctor about Adipem!</td>
<td>Barbara Clark is not an actual user of Adipem. She was compensated for appearing in this advertisement.</td>
<td></td>
</tr>
<tr>
<td>PN6</td>
<td>Paid Nonuser: experience-based authority argument, has not used product, compensated</td>
<td>Crotaphos (migraines)</td>
<td>Lisa King, Ashland, OR</td>
<td>If you want relief from your migraine pains… Ask your doctor about Crotaphos!</td>
<td>Lisa King is not an actual user of Crotaphos. She was compensated for appearing in this advertisement.</td>
<td></td>
</tr>
</tbody>
</table>
Clinical research has shown that Discessum can help relieve rheumatoid arthritis pain. Ask your doctor!

Clinical research conducted by Triamax has shown a significant decrease in pain, stiffness and swelling in rheumatoid arthritis patients having used Discessum (Triamax-2013-854).

Over one million people asked their doctors about ReleVena. Ask your doctor too!

The finding that over one million people asked their doctors about ReleVena was reported in a nationwide survey conducted by Fouradol in July 2013.

* UU = Unpaid User • UN = Unpaid Nonuser • PU = Paid User • PN = Paid Nonuser • RF = Reasonable Filler • FF = Fallacious Filler • Numbers 1 to 8 = advertisement template; for instance: UU1 and UN1 are based on the same template; PU4 and PN4 are based on the same template. Template includes name and type of drug, name, photograph and place of residence of endorser, safety information, and layout.

**Figure 5.4. Characteristics of the artificial advertisements used in experiment I.**

5.2.4 Dependent Variables and Questions

In order to study the effect of the aforementioned independent variables on the judgments of DTC medical advertisements by ordinary language users, two dependent variables were measured: perceived reasonableness and perceived effectiveness.68 This is in line with the primary and secondary aims of this study discussed in Section 5.1: to investigate whether two soundness conditions can be ascribed intersubjective validity, and to investigate the relationship between the reasonableness and effectiveness of experience-based authority arguments in DTC medical advertisements.

I measured the dependent variable “perceived reasonableness” by asking participants to indicate to what extent they agreed with the statement that they find the quoted woman’s endorsement a reasonable argument for the claim that people should use this drug. The dependent variable “perceived effectiveness” was measured by asking about the consecutive perlocutionary consequence that an advertiser conventionally wants to achieve in the communicative activity type of DTC medical ads: that the reader will ask

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68 In this experiment, I measured the perceived reasonableness and perceived effectiveness of argumentation. Reasonableness is a theoretical concept that I use as a basis for manipulating my independent variables (it is influenced by whether or not a critical question is answered satisfactorily), while the concept perceived reasonableness refers to how reasonable participants believe a particular argument to be. Furthermore, concerning effectiveness, “actual” effectiveness would have to be measured by investigating whether actual patients suffering from the medical condition that a particular advertised drug claims to remedy do in fact ask their doctors for the advertised drug as a result of the authority argumentation in the advertisement. That is not what I measured in this experiment: I used advertisements for fictitious drugs, and I asked my participants whether they would ask their doctor for this drug if they were suffering from this condition, which is a measure for perceived effectiveness.
The Perceived Reasonableness and Effectiveness of Sound versus Fallacious Experience-based Authority Arguments

his or her doctor for the advertised drug. Participants were asked to indicate to what extent they agreed with the statement that because of the quoted woman’s endorsement, they would ask their doctors about the advertised drug if they were suffering the medical condition specified in the ad. For both the perceived reasonableness measure and the perceived effectiveness measure, participants could indicate their agreement on seven-point Likert-type scales ranging from “disagree very strongly” to “agree very strongly”.

Beyond these two dependent variables, three additional measures were added to the study: ease of understanding, entertainment value and similarity to actual advertisements. There are two reasons for including these additional measures: first, masking the actual goal of the research, and second, ruling out other advertisement characteristics than reasonableness as alternative explanations for participants’ judgments about effectiveness.

First of all, the three additional questions were included to mask the actual goal of the experiment. If participants would only be questioned about the reasonableness and effectiveness of advertisements, they might easily figure out that the aim of the research concerns reasonableness and effectiveness, which could create an “S-bias” (as was explained in Section 5.2.2). This is the first reason for including additional questions, as so-called “distractors” or “foils”.

The second reason for including the additional questions is that including them enabled me to check whether participants’ effectiveness judgments are influenced by other message characteristics than just the reasonableness of the argumentation. My aim was to keep these other, spurious message characteristics as constant as possible over the entire set of advertisements. I aimed for the influence of these spurious characteristics on the perceived effectiveness to be negligible, so that variances in effectiveness scores can be traced back to the manipulation of my independent variables as much as possible. Including the aforementioned additional questions enabled me to rule out the alternative explanation that a high effectiveness score is related with a high score on how understandable, entertaining or realistic participants find that advertisement to be, to a greater extent than it is related with a high reasonableness score.

The questions that I added for this purpose were all based on advertisement attributes that could provide plausible alternative explanations for the way people judge these messages. The first is ease of understanding – “To what extent do you agree with the following statement? ‘I find this advertisement easy to understand’” – because a lack of understanding might hinder participants in properly judging a text. Van Eemeren and

69 Although theoretically speaking, in pragma-dialectics reasonableness is considered an absolute, binary term – something is either reasonable or fallacious – from an empirical perspective it is not opportune to present participants with a binary choice (“Do you believe this contribution is reasonable, yes or no?”). Because ordinary language users might have a more nuanced conception of reasonableness, presenting them with such a binary choice could introduce noise in the results. When a participant does not consider an argument to be completely reasonable, (s)he might choose the option “unreasonable” when presented with a binary choice, while presenting him or her with a Likert-type scale could reveal that although (s)he does not consider the argument to be fully reasonable, (s)he still considers it to be on the reasonable side of the spectrum. A pilot study carried out by van Eemeren, Garssen and Meuffels showed that a five-point Likert scale was not deemed nuanced enough by participants (2009, p. 57, footnote 10). This could be explained, to some extent, by the fact that participants tend to avoid the ends of a scale. For these reasons, I have chosen to measure my dependent variables by means of seven-point Likert-type scales, as was also done by van Eemeren, Garssen and Meuffels.
Chapter 5

Grootendorst (1984) state that the acceptance of an argument on reasonable grounds is always based on an understanding of that argument, which is why variance in ease of understanding could be seen as a plausible alternative explanation for variance in effectiveness scores. The second is entertainment value – “To what extent do you agree with the following statement? ‘I find this advertisement entertaining’” – because entertainment value could be an important alternative explanation for effectiveness judgments of advertisements: research has shown that the way consumers assess “advertising value” is not only affected by how informative an ad is but also by how entertaining it is (Ducoffe, 1995). The third is similarity to actual advertisements – “To what extent do you agree with the following statement? ‘This advertisement looks like an advertisement that I might encounter in an actual magazine’” – because the fact that the ads in the study are artificial, although I constructed them in line with the conventions for real DTC medical ads, could also influence participants’ effectiveness judgments. If an experimental message is perceived as not at all similar to an actual advertisement, then it could be the case that participants only react to the artificiality of the advertisement in deciding how effective they find it – rather than reacting to the argumentation in the advertisement.

In the questionnaire that the participants were requested to fill out for each ad, the three questions concerning ease of understanding, entertainment value and similarity to actual advertisements were asked first. The questions relating to the reasonableness and effectiveness of the argumentation in the advertisement were asked next, preceded by a request to focus on a particular part of the advertisement: “For the next two questions, please take into account the endorsement by a particular woman that is presented in the advertisement, as well as any further information that the advertisement presents about this woman.” Since the purpose of the experiment was to measure the perceived reasonableness and effectiveness of the argumentation in the advertisement, and not the perceived reasonableness and effectiveness of other parts of the advertisement such as the “important safety information” that is always included in advertisements because this is required by US law, I wanted my participants to base their answers to the reasonableness and effectiveness questions on the parts of the advertisement that contain the argumentation.

The reference to “any further information that the advertisement presents about this woman” was added to enable participants to base their reasonableness and effectiveness judgments not only on the woman’s quoted statement presented at the top of the advertisement, but also on the information presented in the small print of the advertisement, concerning whether the woman had actually used the product and whether she was compensated for appearing in the advertisement.

To summarize, the above considerations led to the following five questions that participants were required to answer for each of the eight advertisements in their plot.

---

70 Van Eemeren and Grootendorst state the aim of the field of speech communication to be the study of acceptance based on understanding (Van Eemeren & Grootendorst, 1974).

71 For the filler messages, instead of referring to “the endorsement by a particular woman”, reference was made to the kind of argumentation that was instantiated in a filler message, such as “the statement about clinical research.”
Each of the five answers had to be provided on a seven-point Likert-type scale ranging from “disagree very strongly” to “agree very strongly”.72

To what extent do you agree with the following statements?
I find this advertisement easy to understand.
I find this advertisement entertaining.
This advertisement looks like an advertisement that I might encounter in an actual magazine.

For the following two questions, please take into account the endorsement by a particular woman that is presented in the advertisement, as well as any further information that the advertisement provides about this woman.

To what extent do you agree with the following statements?
I find this woman’s endorsement a reasonable argument for the claim that people should use this drug.
Because of this woman’s endorsement, I would ask my doctor about Pralivia if I were suffering from heartburn.

After completing these questions for all the eight advertisements within their plot, participants were presented with a post-experimental questionnaire in which they were asked for their opinion about four statements representing the different levels of the independent variables in this study. Such a statement was, for instance, “If a person who is not a medical professional endorses a drug while (s)he is an actual user of this drug, I find this reasonable”.73 The participants’ level of agreement with these statements was again measured on a seven-point Likert-type scale. This post-experimental questionnaire was included to make it easier to rule out alternative explanations for the experimental results, by investigating whether the experimental results were in accordance with the extent to which participants in this post-experimental questionnaire indicated to share the reasonableness standards associated with the two particular critical questions that were investigated.

72 A sample page of the questionnaire, including the Likert-type scales, is included in Appendix B. The particular questionnaire represented above belongs to an advertisement for the fictitious drug Pralivia that is supposedly prescribed to treat the effects of heartburn (pain caused by rising stomach acid). For the last two questions, “this woman’s endorsement” was replaced by a reference to the applicable type of argumentation in the filler messages and “Pralivia” and “heartburn” were replaced by the applicable drug and medical condition in each advertisement.

73 The words “who is not a medical professional” were inserted into these post-experimental questions after one of my pre-testers had indicated that these questions could also refer to doctors endorsing products, in which case it would not matter whether they had or had not used the medical products themselves.
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5.2.5 Procedure: Online Questionnaire

The experiment was conducted by means of an online questionnaire. The participants, who were rewarded for their participation in the study, were first presented with instructions about the questionnaire, without revealing the exact goal of the study to them. They were informed about the number of advertisements that would be presented to them and the precise number of questions they would be required to answer about each advertisement. They were also informed that the advertisements they would be presented with were fictional and that the products these ads promoted did not actually exist. Participants were asked to make sure that they could complete the questionnaire in one sitting. They were then asked to provide their informed consent to participate in the study, declaring that they understood that their participation was voluntary and that they could stop their participation at any moment.

If they provided their informed consent, participants proceeded to the first page of the questionnaire on which they were requested to answer a number of demographical questions, such as their gender, age, and highest level of education completed, and they were asked to indicate how often they encountered print medical advertisements on a five-point scale ranging from very rarely (less than once per year) to very frequently (several times per week). I chose to ask these questions at the beginning rather than at the end of the questionnaire, so that for participants under 18 and for participants who reported that they encountered less than one print medical advertisement per year, the experiment could be automatically terminated.

Having provided their demographical information, the participants were presented with a DTC medical advertisement. It was introduced with the following text: “Imagine you are reading a magazine and come across the following direct-to-consumer drug advertisement, of which only the first page is depicted here. Not depicted is the adjacent page with detailed product information. Please take a thorough look at this first page. Please take into account the whole page, from the photograph at the top to the small print at the bottom”.

---

74 The procedure implemented in this experiment was largely inspired by useful pointers I received from Nanon Labrie, for which I am grateful.

75 Conducting this study online rather than in real life enabled me to more easily recruit participants from the USA. As a researcher based in the Netherlands, another possibility for me would have been to recruit Dutch participants, as van Eemeren, Garssen and Meuffels have done in the majority of their experiments. I did, however, not wish to recruit my participants from the Netherlands, because DTC medical advertisements are not allowed within the European Union, which makes these ads unfamiliar to Dutch participants so that they would not be able to judge them in the same way as their ordinary, intended audience of American consumers is able to do, which would reduce the ecological validity of my research.

76 See Section 5.2.6 for more information concerning the participants and the manner of rewarding them.

77 Being 18 years or older and being somewhat familiar with DTC medical advertisements were two criteria that participants needed to satisfy in order to be selected to participate in the study. For ethical reasons, children were not allowed to take part in the experiment, and people encountering DTC medical ads less than once per year were not deemed to be representative of the target audience of these advertisements. If participants reported to be younger than 18 or to encounter DTC medical ads less than once per year, they were automatically excluded from further participation and received a message informing them that they unfortunately did not qualify to participate in the study.
Following the advertisement, participants were asked to indicate the extent to which they agreed with statements representing the five questions discussed in Section 5.2.4, based on the page they just studied. They could indicate their agreement on a seven-point Likert-type scale ranging from “disagree very strongly” to “agree very strongly”. Also, an option “do not wish to answer” was added to each question, that participants could select in case they did not understand a question or really did not know what to answer. The option “do not wish to answer” was included to prevent participants from rating a question with a “4” (the middle of the scale) while they in fact had no real opinion to offer concerning that particular question.\(^{78}\)

After answering the questions concerning the first advertisement, the participant was presented with a different advertisement from his or her plot, again accompanied by five questions. This process was repeated until the participant had judged eight advertisements in total. The advertisements were presented in a random order, with the exception of the first advertisement, which was always one of the two filler messages. After completing the questionnaire for the eighth advertisement, participants were presented with the post-experimental questionnaire discussed in Section 5.2.4.

Finally, participants were asked to indicate whether they currently used any prescription medication and to indicate which of the medical conditions in a list following the question they were, or had previously been, afflicted with. This list consisted of the eight medical conditions that the fictional drugs in the study claimed to treat or alleviate: asthma, heartburn, high blood pressure, high cholesterol, migraines, rheumatoid arthritis, seasonal allergies, and trouble sleeping. Upon completion of the questionnaire, participants were debriefed regarding the actual goal of the study and were informed on where to get further information about the research project and how to file a complaint about the study.

5.2.6 Participants
Participants were recruited through an online research platform that compensates their respondents for their participation by means of credits which can be redeemed for rewards such as gift vouchers or donations to charity. In order to participate, respondents had to fulfill the characteristics that they were US residents, they were 18 years or older, and they encountered print advertisements for prescription drugs more than once per year. This resulted in 201 participants completing the questionnaire.

The online survey tool enables researchers to track how much time it takes each individual respondent to complete the questionnaire. Based on that information, the results of participants who took an unrealistically short or long amount of time to complete the questionnaire were excluded from analysis. Since the questionnaire consisted of two pages of demographical questions, followed by eight advertisements accompanied by five questions each, and finally a post-experimental questionnaire (a total of eleven pages for the entire questionnaire), I assumed that participants who took five minutes or less to complete the entire questionnaire could not have seriously and attentively studied

\(^{78}\) To ensure an equal number of scores per experimental condition, all data of participants who chose the option “do not wish to answer” for one or more questions concerning the advertisements were later excluded from analysis.
the advertisements. In a pre-test – although the reported times varied for different pages of the questionnaire – the least amount of time my pre-testers needed to carefully read and answer a page of questions was half a minute. For this reason, I excluded the data of participants who took five minutes or less to complete the questionnaire (n = 69), because for those participants the average time spent on each page of the questionnaire was less than half a minute. Also, the data of participants who took more than one hour to complete the questionnaire (n = 4) were excluded from analysis because it was assumed that these participants either encountered technical difficulties during their completion of the questionnaire or did not complete it in one sitting as they were requested to do. For the remaining participants, the average time taken to complete the questionnaire was 11 to 12 minutes (M = 11.82; SD = 7.96).

Excluding the data of about one-third of the participants in my sample, based on the unrealistic amount of time they took to complete the questionnaire, could to some extent have a skewing effect on my results: by dropping all participants that were unrealistically quick or unrealistically slow in answering the questions, I might inadvertently be dropping one specific sub-set of a population, possessing particular participant characteristics that might generally go together with being very quick or very slow in answering questions, thereby making it harder to generalize the results of the experiment to the entire population. This skewing effect, however, was deemed less problematic than the alternative of not excluding these participants. Not excluding these participants would mean that about one-third of my data would originate from participants who could not realistically be assumed to have seriously and attentively studied the advertisements in the study.

Finally, all the data of respondents who had indicated that they did not wish to answer one or more questions concerning their judgments of the advertisements (n = 5) were removed to ensure an equal number of scores per experimental condition. Because these removals resulted in an unequal distribution of participants over the two plots, the data of one random additional respondent (n = 1) from plot II were removed as well.

These deletions resulted in a sample of N = 122 participants (n = 61 for plot I, n = 61 for plot II)79, of which 74 (60.7 %)80 were female and 48 (39.3 %) were male. Ages

79 A number of approximately 50 respondents per plot was estimated to be required to provide this experiment with sufficient statistical power; that is, with sufficient certainty in generalizing the results obtained from these particular participants to an entire population. The aim was to achieve a statistical power of .80, meaning that for a statistical test there is a chance of 80 % of detecting an effect if one genuinely exists (and a chance of 20 % of failing to detect a genuine effect). The required sample size can then be determined based on this power of .80 , the desired alpha level, the specific nature of the statistical test (for this experiment: an F-test) and the expected effect size of the independent variables. If the discrepancy between a null hypothesis and an experimental hypothesis is expected to be minor, one requires a large number of participants to account for the influence of the characteristics of particular participants; if the discrepancy is expected to be major, a small number of participants would suffice. In the current study, based on the findings of van Eemeren, Garssen and Meuffels (2009), a medium to large effect size was predicted, for which approximately 50 respondents per experimental plot are sufficient for an F-test with an alpha level of .05 (see Cohen, 1988, p. 384).

80 The percentages that I report in this section regarding the demographical characteristics of my sample are “valid percentages”: they do not include participants of which a certain demographical characteristic is unknown because they indicated that they did not want to answer a particular demographical question,
ranged from 18 to 73 years \((M = 33.1, SD = 12.53, Mdn = 29)\). Most participants (66.7 %) possessed a Bachelor’s degree or higher,\(^{81}\) meaning that my sample is highly educated compared to the entire US population of which 28.8 % possesses a Bachelor’s degree or higher (U.S. Census Bureau, n.d.). Participants were also requested to supply information regarding certain demographical characteristics of which I suspected that they might influence the way they judged the advertisements in my experiment: how often they encountered print advertisements for prescription drugs in newspapers or magazines; and whether they currently used any prescription drugs. The randomization checks that were performed to investigate whether these characteristics had a significant effect on participants’ reasonableness and effectiveness scores will be discussed in Section 5.4.2. For the sake of completeness, however, I will report the general results of these questions here to describe the characteristics of my sample in somewhat more detail.

When asked to indicate on a five-point scale how often they encountered print advertisements for prescription drugs in newspapers or magazines, the majority of participants indicated that they encountered these ads occasionally to frequently.\(^{82}\) Participants were also asked whether they currently used any prescription drugs. About half of them (49.2 %) indicated that they did, which roughly corresponds to the prescription drug use of the American population at large: the National Center for Health Statistics reports that over the years 2007-2010 (the most recent data reported), 48.5 % of Americans indicated to have used at least one prescription drug in the past 30 days (National Center for Health Statistics, 2014). An overview of participant characteristics for the two separate plots, as well as for the whole sample, is presented in Table 5.5.

so that the percentages always sum to 100 %.

The number of participants who indicated that they did not want to answer a certain demographical question were \(n = 2\) for educational attainment and \(n = 4\) for use of prescription drugs. Since the questions concerning age and frequency of encountering medical advertisements in newspapers or magazines were mandatory, in order to ensure that all participants were 18 years or older and at least encountered 1 or more DTC medical advertisements per year, all participants answered these two questions. The question concerning gender was voluntarily answered by all participants.

81 0: no high school degree = .8 %, 1: high school graduate (or equivalent) = 19.2 %, 2: Associate degree = 13.3 %, 3: Bachelor’s degree = 41.7 %, 4: Master’s degree = 21.7 %, 5: Doctorate degree = 3.3 %.

82 1: very rarely (less than once per year) = 0 %; 2: rarely = 22.1 %; 3: occasionally = 40.2 %; 4: frequently = 25.4 %; 5: very frequently (several times per week) = 12.3 %. When participants selected option 1: “very rarely (less than once per year)”, they were automatically excluded from the remainder of the questionnaire since they were not considered representative of the general readers of these advertisements, which is why that particular answer is given by 0 % of the final sample.
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**Table 5.5. Participant characteristics for entire sample, for Plot I, and for Plot II.**

<table>
<thead>
<tr>
<th></th>
<th>Entire Sample (N = 122)</th>
<th>Plot I (n = 61)</th>
<th>Plot II (n = 61)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>60.7 %</td>
<td>63.9 %</td>
<td>57.4 %</td>
</tr>
<tr>
<td>Male</td>
<td>39.3 %</td>
<td>36.1 %</td>
<td>42.6 %</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$M = 33.10$</td>
<td>$M = 33.67$</td>
<td>$M = 32.52$</td>
<td></td>
</tr>
<tr>
<td>$SD = 12.53$</td>
<td>$SD = 13.04$</td>
<td>$SD = 12.07$</td>
<td></td>
</tr>
<tr>
<td>$Mdn = 29$</td>
<td>$Mdn = 29$</td>
<td>$Mdn = 30$</td>
<td></td>
</tr>
<tr>
<td><strong>Educational Attainment</strong></td>
<td>(on a scale from 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>to 5, 0 = no high school, 3 = Bachelor’s, 5 = doctorate)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$M = 2.74$</td>
<td>$M = 2.75$</td>
<td>$M = 2.74$</td>
<td></td>
</tr>
<tr>
<td>$SD = 1.13$</td>
<td>$SD = 1.09$</td>
<td>$SD = 1.17$</td>
<td></td>
</tr>
<tr>
<td>$Mdn = 3$</td>
<td>$Mdn = 3$</td>
<td>$Mdn = 3$</td>
<td></td>
</tr>
<tr>
<td><strong>Exposure to DTC medical advertisements</strong></td>
<td>(on a scale from 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>to 5, 1 = very rarely, 3 = occasionally, 5 = very frequently)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$M = 3.28$</td>
<td>$M = 3.18$</td>
<td>$M = 3.38$</td>
<td></td>
</tr>
<tr>
<td>$SD = .95$</td>
<td>$SD = .92$</td>
<td>$SD = .97$</td>
<td></td>
</tr>
<tr>
<td>$Mdn = 3$</td>
<td>$Mdn = 3$</td>
<td>$Mdn = 3$</td>
<td></td>
</tr>
<tr>
<td><strong>Use of prescription drugs</strong></td>
<td>(percentage of the respondents indicating that they currently use prescription drugs)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>49.2 %</td>
<td>47.5 %</td>
<td>50.8 %</td>
</tr>
<tr>
<td><strong>Minutes taken to complete the questionnaire</strong></td>
<td>$M = 11.82$</td>
<td>$M = 11.75$</td>
<td>$M = 11.89$</td>
</tr>
<tr>
<td></td>
<td>$SD = 7.96$</td>
<td>$SD = 8.23$</td>
<td>$SD = 7.74$</td>
</tr>
<tr>
<td></td>
<td>$Mdn = 9$</td>
<td>$Mdn = 8$</td>
<td>$Mdn = 9$</td>
</tr>
</tbody>
</table>
The Perceived Reasonableness and Effectiveness of Sound versus Fallacious Experience-based Authority Arguments

To ensure that the results of my experiment could indeed be ascribed to the manipulation of my independent variables and not to in-between group differences, one-way analyses of variance and Chi-square Tests were carried out to investigate whether the two plots differed significantly from each other in terms of participant characteristics. None of these tests showed significant results.83

5.3 Results

5.3.1 Validity Check: Filler Messages

To investigate the validity of my experimental data, I will first explore whether my filler messages behaved as we would expect them to do in light of earlier research. I will compare my results for the filler message “Sound Filler” versus the filler message “Fallacious Filler” with the results that were reported in van Eemeren, Garssen and Meuffels for an experiment concerning the *argumentum ad populam* (2009, pp. 184-185). I will regard this comparison as a “gate-keeper test”: if my filler results showcase the same ordinal pattern that can be found in van Eemeren et al.’s results, which were based on a research design that has been tested by means of numerous replication studies, then I consider the validity of my data to be up to standard.

The specific kind of sound argumentation tested was different for both experiments: while the reasonable filler message in the current study employed a symptomatic argument referring to clinical research, the reasonable argumentation studied by van Eemeren et al. was reasonable populistic argumentation based on quantitative data (k = 6 instantiations) and reasonable other (non-populistic) argumentation that was not further specified (k = 6). Despite this difference in the exact kind of reasonable argumentation that was tested, the ordinal pattern – which score is higher than which – for *ad populam* fallacies versus reasonable arguments found in my study can still be compared to the ordinal pattern found by van Eemeren et al. Ideally, I would have compared my results to those of a study in which exactly the same kinds of arguments were tested, but as to date, no such study exists. The results that were found by van Eemeren et al. are represented in Table 5.6; the results that were found in the current study are represented in Table 5.7.

---

83 For gender: $\chi^2 (1, N = 122) = .55; p = .46$; for age: $F (1, 120) = .25; p = .62$; for educational attainment: $F (1, 118) = .002; p = .97$; for exposure to DTC medical ads: $F (1, 120) = 1.32; p = .25$; for use of prescription drugs: $\chi^2 (1, N = 118) = .14; p = .85$; for minutes taken to complete the questionnaire: $F (1, 120) = .008; p = .93$. Because of the number of interconnected tests conducted, to reduce the chances of committing a Type I error (incorrectly declaring a result significant while it occurred by chance) a Bonferroni correction was applied to the alpha level required to declare the results of these checks significant. The alpha level for the tests was $0.05 / 6 = 0.008$. The lowest reported p-value was .25 for exposure to DTC medical ads, which is well above the alpha level of .008.
## Table 5.6. Mean reasonableness scores (including standard deviations between brackets) for argumentum ad populum fallacies versus two kinds of reasonable argumentation as reported by van Eemeren, Garssen and Meuffels (2009, p. 184). N = number of participants; k = number of instantiations.

<table>
<thead>
<tr>
<th></th>
<th>Argumentum ad populum (k = 6)</th>
<th>Reasonable populistic argumentation (k = 6)</th>
<th>Reasonable non-populist argumentation (k = 6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Van Eemeren, Garssen and Meuffels (2009) (N = 48)</td>
<td>2.77 (.80)</td>
<td>5.02 (.78)</td>
<td>5.88 (.73)</td>
</tr>
</tbody>
</table>

## Table 5.7. Mean reasonableness scores (including standard deviations between brackets) for argumentum ad populum fallacies versus reasonable argumentation in experiment I. N = number of participants; k = number of instantiations.

<table>
<thead>
<tr>
<th></th>
<th>Argumentum ad populum (k = 1)</th>
<th>Reasonable symptomatic argumentation referring to clinical research (k = 1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current study (N = 122)</td>
<td>3.09 (1.47)</td>
<td>4.52 (1.35)</td>
</tr>
</tbody>
</table>

One might notice that the absolute scores reported in my study – a mean score of 3.09 for the *ad populum* fallacy – are quite different from the absolute scores reported by van Eemeren et al. (a mean score of 2.77 for the *ad populum* fallacy). It is, however, more meaningful to compare the ordinal patterns found in these two studies rather than the absolute scores that were reported. A first reason for comparing the ordinal patterns rather than the absolute scores of these two studies, is that since I only used one *ad populum* filler message in my research, my mean score is based on only this one message, which means that my score is more prone to be influenced by idiosyncratic message characteristics than van Eemeren et al.’s score, which was based on six messages. Secondly, van Eemeren et al. did not study the *ad populum* message in the context of a medical advertisement, and since reasonableness judgments might to some extent be different for different argumentative activity types, this makes it somewhat difficult to directly compare absolute scores obtained in various studies concerning different institutional circumstances. I will therefore compare the ordinal patterns that were found in the two studies.
Van Eemeren, Garssen and Meuffels (2009, p. 185) calculated Helmert contrasts that showed the *argumentum ad populum* to be judged as significantly less reasonable than the two kinds of sound argumentation that were tested ($F(1, 20) = 64.47; p < .01$, second Helmert contrast). For my current study to pass the “gate-keeper test” with van Eemeren et al.’s results as a benchmark, the mean reasonableness score for my *ad populum* filler message has to be significantly lower than the mean reasonableness score of my *sound* filler message.

To check whether the sound argumentation is indeed judged as significantly more reasonable than the fallacious argumentation, an F-test (one-way analysis of variance) was carried out with the reasonableness scores of the filler items as the dependent variable and “reasonable versus *ad populum*” as a within-subjects factor. This test showed that the *ad populum* message was indeed rated significantly less reasonable than the message containing sound symptomatic argumentation ($F(1, 121) = 82.54; p < .01$). Because the difference in perceived reasonableness between *ad populum* fallacies and reasonable argumentation was significant in both experiments, I consider my experimental data to have survived the gate-keeper test. This means that based on the comparison with van Eemeren et al.’s results, there is no reason to doubt the validity of my experimental data.

5.3.2 Perceived Reasonableness of Experimental Messages

The mean reasonableness scores of the four ad types representing my four experimental conditions (Unpaid User, Paid User, Unpaid Nonuser and Paid Nonuser) are represented in Table 5.8. The table also includes the marginal means for the levels “Yes” and “No” of the independent variables “Experienced” and “Not Compensated”, which are mean scores calculated over all the advertisements in which that variable level is instantiated. For instance: the marginal mean for the level “Yes” of the variable “Experienced” is calculated over ad types Unpaid User and Paid User combined, since in both of these ad types the endorser actually experienced the advertised drug’s desirable effects.

---

84 Since the filler items were judged by *all* participants in my experiment, rather than only occurring in one of the two plots like the rest of the messages, and were only represented by one message per experimental condition, the design of the filler items can be classified as a single-message within-subjects design. Different from the experimental messages that I will discuss in the remainder of this chapter, the single-message design of the fillers makes it unnecessary to calculate a quasi-F-ratio with corresponding approximated degrees of freedom to analyze the results concerning these filler messages. Since the test for the filler messages does not contain other random factors besides the error-term “respondents”, a regular F-ratio can be used.
### Table 5.8. Mean reasonableness scores (including standard deviations between brackets) for the different experimental conditions (Ad Types), and marginal means for the different values of Experienced [Yes versus No] and the different values of Not Compensated [Yes versus No]. Measured as the extent of agreement with the statement “I consider this woman's endorsement to be a reasonable argument for the claim that people should use this drug” on a seven-point Likert type scale, where 1 = disagree very strongly, 7 = agree very strongly.\(^{85}\)

<table>
<thead>
<tr>
<th>Experienced</th>
<th>Not Compensated</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>3.03 (1.47)</td>
<td>2.89 (1.42)</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>3.33 (1.28)</td>
<td>2.58 (1.44)</td>
<td>[Ad Type Unpaid User]</td>
</tr>
<tr>
<td></td>
<td>3.37 (1.30)</td>
<td>2.69 (1.56)</td>
<td>[Ad Type Paid User]</td>
</tr>
<tr>
<td></td>
<td>3.30 (1.32)</td>
<td>2.48 (1.41)</td>
<td>[Ad Type Unpaid Nonuser]</td>
</tr>
</tbody>
</table>

The first hypothesis to be tested is H₁: Authority arguments in direct-to-consumer medical advertisements are perceived to be more reasonable when it is clear from the advertisement that an endorser has experienced the desirable effect of the advertised product, than when it is clear from the advertisement that (s)he has not.

To confirm or reject this hypothesis, the reasonableness scores of advertisements in which the independent variable “Experienced” has value “Yes” (advertisements of types Unpaid User and Paid User), have to be compared with the reasonableness scores of advertisements in which the value of “Experienced” is “No” (advertisements of types Unpaid Nonuser and Paid Nonuser). To do this, a multivariate analysis of variance was conducted with a mixed model approach for repeated measurements. The reasonableness scores for advertisements in which it is clear that the endorser has actually experienced the desirable effect of the advertised product (\(M = 3.33; SD = 1.28\)) prove to be significantly higher than the reasonableness scores for the advertisements in which it is clear that the endorser has not experienced this effectiveness (\(M = 2.58; SD = 1.44\)): \(F(1, 123) = \ldots\)

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\(^{85}\) The mean reasonableness scores presented in this table are all lower than 4, indicating that all advertisements in my experiment were considered to be unreasonable in an absolute sense. However, as was explained in Section 5.1.2, I did not formulate any hypotheses concerning absolute reasonableness scores because of the negative influence the advertising context might have on these scores. I only formulated hypotheses concerning the differences between the scores of the four ad types in the experiment, which will be tested in the current section. The same holds true for the effectiveness scores discussed in the next section.
The Perceived Reasonableness and Effectiveness of Sound versus Fallacious Experience-based Authority Arguments

8.69; \( p = .004 \); ES = .25. This means that \( H_1 \) can be confirmed. The reported Effect Size indicates that 25% of the variance in participants’ reasonableness judgements can be explained by the factor “ Experienced”. The effect of the factor “ Experienced” on participants’ reasonableness judgments can therefore be classified as large.

For my second hypothesis (\( H_2 \): Authority arguments in direct-to-consumer medical advertisements are perceived to be more reasonable when it is clear from the advertisement that an endorser does not profit from claiming that the advertised product is effective, than when it is clear from the advertisement that (s)he does profit), a comparison has to be made between the reasonableness scores for ads in which the value of the independent variable “Not Compensated” is “Yes” (ads of types Unpaid User and Unpaid Nonuser) and the reasonableness scores for ads in which the value of the independent variable “Not Compensated” is “No” (ads of types Paid User and Paid Nonuser). The same kind of mixed model multivariate analysis of variance for repeated measurements was carried out as was used to test the previous hypothesis (and will also be carried out to test the subsequent hypotheses \( H_3 \) and \( H_4 \) below). The reasonableness scores for advertisements in which it is clear that the endorser is not compensated for appearing in an advertisement (\( M = 3.03; SD = 1.47 \)), is higher than that of the advertisements in which it is clear that the endorser is compensated (\( M = 2.89; SD = 1.42 \)). This difference is marginally significant (\( F'(1, 15) = 3.39; p = .087 \).

---

86 An F-ratio (\( F \)) is the ratio of systematic variance in a set of data, caused by the manipulation of an independent variable, to the unsystematic variance – also known as error, caused by nuisance variables such as the differences between individual respondents. Because I use a mixed design in which random factors (the respondents and the individual advertisements within the experimental conditions) are combined with fixed factors (my independent variables “ Experienced” and “Not Compensated”), the F-ratios that I report are quasi-F-ratios (\( F' \)) rather than regular F-ratios (see Clark (1973) for an explanation of the difference between both). The degrees of freedom for quasi-F-ratios are not exact, but must be approximated. The quasi-F-ratios that I used for the factors Experienced (E), Not Compensated (N) and the interaction between these two (E x N) are the following, in which MS stands for “Mean Square”, which is the average amount of variance in the data explained by a particular variable; “r” stands for the factor “respondent”; and “a” stands for the factor “advertisement”:

\[
F'_E = (MS_E + MS_{E \times N}) / (MS_{E \times N} + MS_{(E)})
\]

\[
F'_N = (MS_N + MS_{E \times N}) / (MS_{E \times N} + MS_{(N)})
\]

\[
F'_{E \times N} = (MS_{E \times N} + MS_{E \times N}) / (MS_{E \times N} + MS_{E \times N})
\]

See Appendix C for a specification of the statistical model that I used to obtain these quasi-F-ratios and for the corresponding degrees of freedom.

87 A p-value of .004 indicates that the chance that I could have obtained these same results if \( H_1 \) would not be the case, is only 4 tenths of a percent.

88 In line with van Eemeren, Garssen and Meuffels (2009), I use the term “ES” to report effect sizes, referring to the proportion of variance within the statistical model that is associated with a certain main effect, under abstraction of the “ nuisance” factor “respondent”. The Effect Size of .25 reported on this page, for instance, was calculated by dividing the variance associated with the factor “ Experienced” by the total variance explained by all variance sources within the statistical model minus the variance caused by the factor “respondent”. Van Eemeren, Garssen and Meuffels (2009) consider .01 < ES < .05 a small Effect Size, .06 < ES < .10 a medium Effect Size, and ES > .10 a large Effect Size.
\( ES = .01 \), meaning that it is doubtful whether we should reject \( H_2 \) or should reject its corresponding null-hypothesis. \( H_1 \) could be confirmed, while \( H_2 \) could neither be confirmed nor rejected. In light of the reported Effect Sizes, however, it is evident that the variable “Experienced” plays a considerably larger role for participants’ reasonableness judgments than the variable “Not Compensated”. While the Effect Size of the variable “Experienced” was .25 (which can be classified as large), the Effect Size of “Not Compensated” is .01, meaning that only 1 % of the variance in reasonableness scores are due to the “Not Compensated” variable, which can be classified as a small effect size.

5.3.3 Perceived Effectiveness of Experimental Messages

Table 5.9 provides the mean effectiveness scores for the four different experimental conditions represented by my ad types Unpaid User, Paid User, Unpaid Nonuser and Paid Nonuser, as well as marginal means for of the levels “Yes” and “No” of the independent variables “Experienced” and “Not Compensated”.

89 If an alpha level of .05 would be strictly used as a decision criterion – meaning that we have to reject a hypothesis if the chance of incorrectly rejecting its null-hypothesis is more than 5 % – we would have to reject hypothesis \( H_2 \). However, the use of an arbitrary alpha level of .05 as a cut-off point has been a debated topic in statistics for decades (see, for instance, Cumming, 2013; Gigerenzer, 2004; Rosnow & Rosenthal, 1989). Considering that my results are in the projected direction – not being compensated is indeed considered to be more reasonable than being compensated, as was hypothesized – and \(.05 < p < .10\), meaning that the chance of obtaining the results that I found when the null hypothesis would be true is more than 5 % but less than 10 %, I consider the effect of the variable “Not Compensated” to be marginally significant.
Table 5.9. Mean effectiveness scores (including standard deviations between brackets) for the different experimental conditions (Ad Types), and marginal means for the different values of Experienced [Yes versus No] and the different values of Not Compensated [Yes versus No]. Measured as the extent of agreement with the statement "Because of this woman's endorsement, I would ask my doctor about [drug] if I were suffering from [medical condition]" on a seven-point Likert type scale, where 1 = disagree very strongly, 7 = agree very strongly.

<table>
<thead>
<tr>
<th>Experienced</th>
<th>Not Compensated</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>3.25 (1.39)</td>
<td>3.09 (1.50)</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>3.66 (1.28)</td>
<td>2.69 (1.37)</td>
<td></td>
</tr>
<tr>
<td>[Ad Type Unpaid User]</td>
<td>3.78 (1.34)</td>
<td>2.73 (1.47)</td>
<td></td>
</tr>
<tr>
<td>[Ad Type Paid User]</td>
<td>3.54 (1.29)</td>
<td>2.64 (1.35)</td>
<td></td>
</tr>
</tbody>
</table>

H₃ concerns the effectiveness of advertisements in which the endorser either has or has not actually experienced the desirable effect of the advertised product: “Authority arguments in direct-to-consumer medical advertisements are perceived as more effective when it is clear from the advertisement that an endorser has experienced the desirable effect of the advertised product, than when it is clear from the advertisement that (s)he has not”.

To confirm or reject this hypothesis, a comparison has to be made between the effectiveness scores of advertisements in which the independent variable “Experienced” has value “Yes” (ads of types Unpaid User and Paid User), and the effectiveness scores of advertisements in which the value of “Experienced” is “No” (Unpaid Nonuser and Paid Nonuser). The effectiveness scores for advertisements in which it is clear that the endorser has actually experienced the desirable effect of the advertised product ($M = 3.66; SD = 1.28$), are significantly higher than the effectiveness scores for advertisements in which it is clear that the endorser has not experienced the product’s desirable effect ($M = 2.69; SD = 1.37$) ($F (1, 122) = 15.43; p < .001; ES = .35$). This means that H₃ can be confirmed. The Effect Size of the variable “Experienced” on participants’ effectiveness judgments can be classified as large.

My final hypothesis is H₄: “Authority arguments in direct-to-consumer medical advertisements are perceived as more effective when it is clear from the advertisement that an endorser does not profit from claiming that the advertised product is effective, than when it is clear from the advertisement that (s)he does profit”. To confirm or reject this hypothesis, a comparison has to be made between the effectiveness scores for ads in
which the value of the independent variable “Not Compensated” is “Yes” (advertisements of the types Unpaid User and Unpaid Nonuser) and the effectiveness scores for ads in which the value of the independent variable “Not Compensated” is “No” (advertisements of the types Paid User and Paid Nonuser).

The effectiveness scores for advertisements in which it is clear that the endorser is not compensated for appearing in them ($M = 3.25; SD = 1.39$) are higher than those of the advertisements in which it is clear that the endorser is compensated ($M = 3.09; SD = 1.50$). As was the case with the reasonableness scores regarding the variable “Not Compensated”, this difference in effectiveness scores is once again marginally significant ($F(1, 14) = 4.29; p = .057, ES = .01$), which means that it is doubtful whether $H_4$ should be rejected or confirmed. The Effect Size of the variable “Not Compensated” on participants’ effectiveness judgments, just like the effect size of this variable on reasonableness judgments, can be classified as small.

5.4 Discussion

5.4.1 Interpretation of Results
The results discussed in the previous section clearly showed that hypotheses $H_1$ and $H_3$ could be confirmed: advertisements in which endorsers were claimed to have actually experienced the advertised drugs’ desirable effects were judged to be significantly more reasonable and effective than advertisements in which endorsers were claimed not to be actual users of the advertised drugs. Although these results might seem obvious to some – that an endorser is more credible if (s)he actually knows what (s)he’s talking about may not come as a surprise – the fact that hypothesis $H_1$ could be confirmed clearly indicates that the soundness condition that is captured in the Desirable Consequence question is in line with one of the criteria that readers of DTC medical ads apply to judge experience-based authority arguments, which is an important finding. No matter how obvious such a criterion may seem, we can never just assume that a criterion that makes sense from a theoretical point of view is also shared by ordinary language users. The results of the current study have for the first time indicated that the Desirable Consequence question is not just instrumentally, but also intersubjectively valid.

Furthermore, the fact that both $H_1$ and $H_3$ could be confirmed, points towards a relation between reasonableness and effectiveness. To assess the correlation between perceived reasonableness and perceived effectiveness in the current experiment, Pearson’s $r$ was computed for the reasonableness and effectiveness scores of all the different advertisements. These analyses showed very strong, positive correlations between the reasonableness and effectiveness scores of each and every one of the ads in the experiment, with all reported p-values being below .001.90 These findings regarding the strong

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90 See Section 5.2.3 for an overview of the 14 different ads that were used in experiment I. UU stands for “Unpaid User”, UN for “Unpaid Nonuser”, PU for “Paid User”, PN for “Paid Nonuser”, RF for “Reasonable Filler” and FF for “Fallacious Filler”. The correlations were as follows. For ad UU1: $r = .83; n = 61; p < .001$; for ad UU2: $r = .80; n = 61; p < .001$; for ad UU3: $r = .78; n = 61; p < .001$; for ad UN1: $r = .81; n = 61; p < .001$; for ad UN2: $r = .79; n = 61; p < .001$; for ad UN3: $r = .80; n = 61; p < .001$; for ad PU4: $r = .60; n = 61$;
correlation between reasonableness and effectiveness are in line with the effectiveness findings of the *ad hominem* study by van Eemeren, Garssen, and Meuffels (2007) that was discussed in Section 5.1.1.

Whereas Hypotheses H₁ and H₃, concerning variable “Experienced”, could be confirmed, for hypothesis H₂ and H₄, concerning the variable “Not Compensated”, it was doubtful whether these hypotheses should be accepted or rejected due to the marginal significance associated with the variable “Not Compensated”. For hypothesis H₂, this means that we cannot incontrovertibly determine whether or not the critical question concerning an endorser profiting from his or her endorsement is intersubjectively valid. There was, however, an additional way in which the intersubjective validity of the two critical questions was researched in the current experiment: the post-experimental questionnaire that participants were requested to answer after the experiment. Is the marginal significance associated with H₃ in line with the answers to this post-experimental questionnaire?

In their answers to the post-experimental questions, participants had to indicate how reasonable they found endorsements in which the two tested critical questions were either satisfactorily or unsatisfactorily answerable. Participants were asked to indicate on a seven-point scale to what extent they agreed with the following four statements [the explanations between brackets were not included in the questionnaire]:

1. If a person who is not a medical professional endorses a drug while (s)he is an actual user of this drug, I find this reasonable. [relates to Experienced Yes]
2. If a person who is not a medical professional endorses a drug while (s)he is NOT an actual user of this drug, I find this reasonable. [relates to Experienced No]
3. If a person who is not a medical professional endorses a drug while (s)he is compensated for appearing in an advertisement, I find this reasonable. [relates to Not Compensated No]
4. If a person who is not a medical professional endorses a drug while (s)he is NOT compensated for appearing in an advertisement, I find this reasonable. [relates to Not Compensated Yes] ⁹¹

The results of these post-experimental questions are summarized in Table 5.10.

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⁹¹ Note that the order of post-experimental questions 3 and 4 is such that question 3 corresponds to the level “No” while question 4 corresponds to the level “Yes” of the variable “Not Compensated”, which is a reversed order in comparison to questions 1 and 2 relating to the variable “Experienced”. This is due to the fact that the level “Yes” of the variable “Not Compensated” is phrased as “...who is NOT compensated”, which corresponds to the phrasing of the level “No” of the variable Experienced (“...who is NOT an actual user”). It was judged that sequencing the four questions according to their phrasing (“is” versus “is NOT”) would be less confusing for participants than sequencing them according their respective levels of the independent variables.
Table 5.10. Mean scores (including standard deviations between brackets) for post-experimental questions, measured on a seven-point Likert-type scale where 1 = disagree very strongly, 4 = disagree nor agree, and 7 = agree very strongly.

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Experienced</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question 1</td>
<td>4.41 (1.35)</td>
<td>Question 2</td>
</tr>
<tr>
<td><strong>Not Compensated</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question 4</td>
<td>3.24 (1.64)</td>
<td>Question 3</td>
</tr>
</tbody>
</table>

For the post-experimental question corresponding to the variable “Experienced”, participants found it significantly more reasonable if a person who has actually used the advertised drug endorses this drug ($M = 4.41; SD = 1.35$), than if a person who is not an actual user of the drug endorses it ($M = 1.94; SD = 1.30$) ($F(1, 121) = 291.40; p < .001$). For the post-experimental question corresponding to the variable “Not Compensated”, participants also found it significantly more reasonable if a person who is not compensated for appearing in the advertisement endorses a drug ($M = 3.24; SD = 1.64$), than if a person who is compensated endorses it ($M = 2.54; SD = 1.54$) ($F(1, 121) = 34.82; p < .001$). While the results for the first two post-experimental question are in line with a confirmation of hypotheses $H_1$, the results regarding the latter two questions are remarkable in light of the marginally significant results associated with hypothesis $H_2$. How can this discrepancy be explained?

A first explanation could be that participants’ own ideas about what they believe they find reasonable are different from what they actually find reasonable when they are confronted with a concrete situation. This is exactly the reason for conducting an experiment to test ordinary language users’ reasonableness perceptions, rather than just asking them directly, as I did in the post-experimental questions, what they find reasonable or unreasonable “in abstracto”.

A second explanation for the discrepancy could be that while the post-experimental questions concerned the effects of the two independent variables “Experienced” and “Not Compensated” separately, the experimental messages always contained a combination of two independent variables; a combination that might have influenced the results. To investigate this alternative explanation the interaction between the variables “Experienced” and “Not Compensated” can be tested by means of the same statistical model and F-test that was used to analyze the main results. This interaction proved not to be significant, neither for the reasonableness scores ($F(2, 15) = 1.13; p = .35$) nor for the effectiveness scores ($F(2, 14) = 1.35; p = .29$). That means that it is not the case that the variable “Not Compensated” only has an effect in combination with one of the levels of the variable “Experienced” and not in combination with the other level.
There could, however, be another way in which the fact that in the current study these two independent variables were combined, could have influenced the results. The experimental situation in which it was not clear whether someone actually experienced the desirable effect of the drug was not tested, so it could be the case that the difference in perceived reasonableness between the levels of the independent variable “Not Compensated” that was suggested by the results of the post-experimental questions can only be measured in absence of any of the levels of the independent variable “Experienced”. Both of the tested levels of the variable “Experienced” might have “overshadowed” the factor “Not Compensated” in this experiment: when it is clear from an advertisement that someone has in fact experienced the desirable effect of a drug, then it does not matter anymore whether someone is paid to appear in an ad; and vice versa: when it is already clear from an advertisement that someone has not experienced the desirable effect of a drug, then why should we care about his or her motives for appearing in the advertisement? I consider this the most likely explanation for the discrepancy between my experimental and post-experimental results regarding the independent variable “Not Compensated”.

5.4.2 Influence of Participant Characteristics on Results
To check the extent to which my results are generalizable to a larger sample of respondents rather than being dependent on the specific characteristics of my sample, I assessed whether the reasonableness and effectiveness scores for the filler messages were significantly influenced by any participant characteristics. Besides requesting participants to supply the demographical characteristics mentioned in Section 5.2.6 (gender, age, educational attainment, current use of prescription drugs, and frequency of encountering DTC medical ads), I also asked them to indicate whether they had any experience working or studying in the fields of communication, marketing, medicine or pharmaceuticals – fields that I expected might alter the way participants would judge the advertisements in my experiment.92 I assessed the influence of all of these demographical variables on participants’ reasonableness and effectiveness judgments of the filler messages by means of one-way ANOVA tests.93

Because these ANOVA tests were all carried out for two filler advertisements independently, and for nine different participant characteristics (gender; age; educational attainment; prescription drug use; frequency of encountering DTC prescription drug

92 9% of the participants in my sample indicated to have experience in communication, 5.7% in marketing, 16.4% in medicine, and 4.1% in pharmaceuticals. No option “do not wish to answer” was included; participants could check the applicable boxes for Communication, Marketing, Medicine and/or Pharmaceuticals and could leave all boxes blank if they did not have experience in any of these fields or if they preferred not to answer the question. That means that in the results for this question, participants with no experience in these fields cannot be told apart from participants who did not wish to answer the question. This is a slight methodological shortcoming that will be remedied in the next experiment. For the current analyses concerning the influence of experience in one of these fields on the filler results, the results of participants with experience in a particular field were contrasted with the results of the rest of the sample (participants who either did not have experience in that particular field or did not wish to answer the question).

93 This check was only carried out for the filler messages, not for the experimental messages. As a result of using a split-plot design (see Section 5.2.2) the filler messages were the only messages judged by all respondents. For this reason, the filler messages were the most reliable indicators for differences in scores.
advertisements; and experience working or studying in the fields of communication, marketing, medicine and pharmaceuticals), a total of eighteen tests needed to be carried out to assess the influence of the demographical characteristics of my sample on my results. Conducting such a large number of interconnected tests increases the chance of declaring a result significant while in fact it occurred solely by chance (called a “Type I error”). To reduce the chances of results incorrectly being declared significant, I applied a Bonferroni correction to the alpha level that is required to declare an effect significant. This means that for the following statistical analyses I do not use the customary alpha level of .05, but instead use an alpha level of .05 / 18, which comes down to an alpha level of .002.94

Gender,95 age,96 educational attainment, 97 prescription drug use, 98 and the frequency with which participants reported to encounter DTC prescription drug advertisements,99 were not found to significantly influence the filler results. Moreover, the results of people with experience working or studying in fields that might influence their opinions of medical advertisements (communication,100 marketing,101 medicine,102

94  Because I wished to be able to report the influence of the demographical characteristics of my sample on my reasonableness results separately from the influence on my effectiveness results, I did not take into account the fact that the influence on perceived reasonableness and the influence on perceived effectiveness were tested independently for each characteristic in the calculation of the applicable Bonferroni correction.  

95  For gender (n = 122), male versus female:  
reasonable filler (RF): reasonableness: \( F(1, 120) = .01; p = .911; \) effectiveness: \( F(1, 120) = .32; p = .574; \) 
fallacious filler (FF): reasonableness: \( F(1, 120) = .03; p = .868; \) effectiveness: \( F(1, 120) = .79; p = .376. \)

96  For age (n = 122), as a variable with 6 levels, representing categories of 10 years each (18-27 years, 28-37 years, etc., up to 68-77 years):  
reasonable filler (RF): reasonableness: \( F(5, 116) = 2.03; p = .080; \) effectiveness: \( F(5, 116) = 1.11; p = .360; \) 
fallacious filler (FF): reasonableness: \( F(5, 116) = .25; p = .940; \) effectiveness: \( F(5, 116) = .97; p = .438. \)

97  For educational attainment (n = 120), as a variable with 6 levels (no high school, high school or equivalent, Associate degree, Bachelor’s degree, Master’s degree, and Doctoral degree):  
reasonable filler (RF): reasonableness: \( F(5, 114) = .74; p = .594; \) effectiveness: \( F(5, 114) = 1.29; p = .272; \) 
fallacious filler (FF): reasonableness: \( F(5, 114) = .412; p = .839; \) effectiveness: \( F(5, 114) = 2.50; p = .034. \)

98  For prescription drug use (n = 118), yes versus no:  
reasonable filler (RF): reasonableness: \( F(1, 116) = .80; p = .373; \) effectiveness: \( F(1, 116) = .06; p = .803; \) 
fallacious filler (FF): reasonableness: \( F(1, 116) = .58; p = .448; \) effectiveness: \( F(1, 116) = .85; p = .357. \)

99  For frequency of encountering DTC medical ads (n = 122), a variable with four levels (ranging from rarely to very frequently):  
reasonable filler (RF): reasonableness: \( F(3, 118) = 1.15; p = .334; \) effectiveness: \( F(3, 118) = 1.35; p = .262; \) 
fallacious filler (FF): reasonableness: \( F(3, 118) = .90; p = .443; \) effectiveness: \( F(3, 118) = 1.49; p = .223. \)

100 For experience working or studying in communication (n = 122):  
reasonable filler (RF): reasonableness: \( F(1, 120) < .01; p = .957; \) effectiveness: \( F(1, 120) = 1.24; p = .268; \) 
fallacious filler (FF): reasonableness: \( F(1, 120) = .18; p = .671; \) effectiveness: \( F(1, 120) = .07; p = .796. \)

101 For experience working or studying in marketing (n = 122):  
reasonable filler (RF): reasonableness: \( F(1, 120) = 1.12; p = .291; \) effectiveness: \( F(1, 120) = 1.23; p = .270; \) 
fallacious filler (FF): reasonableness: \( F(1, 120) = .48; p = .489; \) effectiveness: \( F(1, 120) = .01; p = .932. \)

102 For experience working or studying in medicine (n = 122):  
reasonable filler (RF): reasonableness: \( F(1, 120) = .07; p = .788; \) effectiveness: \( F(1, 120) = .02; p = .885; \) 
fallacious filler (FF): reasonableness: \( F(1, 120) = .48; p = .488; \) effectiveness: \( F(1, 120) = .06; p = .806. \)
and pharmaceuticals\textsuperscript{103}) were not significantly different from the rest of the sample for any of these experience groups. The lowest $p$-value that was reported for any of these tests was .034 ($F (5, 114) = 2.50; \ p = .034$ for the influence of educational attainment on the effectiveness scores of the fallacious filler advertisement), which is well above my alpha level of .002.

Besides these tests for the influence of demographical characteristics on the filler results, I carried out an additional group of tests to assess the influence of medical conditions participants suffered from on these participants’ judgments of the specific ads that concerned those particular afflictions.\textsuperscript{104} For example, I tested whether participants who had indicated to suffer (or to have previously suffered) from heartburn judged the reasonableness and effectiveness of the particular advertisement that concerned their particular affliction (in the case of heartburn: advertisement Unpaid User 1 in plot I or advertisement Unpaid Nonuser 1 in plot II) significantly different than the rest of their plot.\textsuperscript{105} Because these ANOVA tests were conducted for each advertisement in the experiment independently, summing up to fourteen tests (six of the medical conditions were represented by two ads each and the remaining two medical conditions were represented by one filler ad each), I once more applied the Bonferroni criterion to correct the alpha level required to declare results significant, to decrease the risk of committing a Type I error. The alpha level for these tests comes down to .05 / 14 = .004. None of these ANOVA tests yielded significant differences,\textsuperscript{106} with the lowest reported $p$-level being .039

\textsuperscript{103} For experience working or studying in pharmaceuticals ($n = 122$):
reasonable filler (RF): reasonableness: $F (1, 120) = 3.38; \ p = .069$; effectiveness: $F (1, 120) = 3.59; \ p = .061$;
fallacious filler (FF): reasonableness: $F (1, 120) = .03; \ p = .865$; effectiveness: $F (1, 120) = 1.22; \ p = .270$.

\textsuperscript{104} On the last page of the questionnaire participants were asked to indicate whether they suffered (or had previously suffered) from asthma, heartburn, high blood pressure, high cholesterol, migraines, rheumatoid arthritis, seasonal allergies, and trouble sleeping (the eight conditions represented in the ads in the study). $n = 16$ participants indicated to suffer or have suffered from asthma (13.1 % of the entire sample); $n = 24$ from heartburn (19.7 %), $n = 14$ from high blood pressure (11.5 %), $n = 13$ from high cholesterol (10.7 %), $n = 22$ from migraine (18.0 %), $n = 1$ from rheumatoid arthritis (8 %), $n = 48$ from seasonal allergies (39.3 %) and $n = 42$ from trouble sleeping (34.4 %). Participants could check the applicable boxes for those eight conditions and could leave all boxes blank if they had not suffered from any of these conditions or if they preferred not to answer the question, which makes it statistically impossible to discriminate between people who did not suffer from any of the conditions and people who did not wish to answer the question. For the current analyses, the results of participants suffering from a particular affliction will be contrasted with the results of the rest of their plot (“the rest” consisting of people who either did not suffer from that affliction or did not wish to answer the question).

\textsuperscript{105} Because of the split-plot design, each non-filler advertisement was only judged by half of the respondents. This means that in the ANOVA analyses reported below concerning the non-filler advertisements, the first advertisement that is listed (UU1, UU2, etc.) was judged by 59 \textit{different} participants than the second advertisement that is listed (UN1, UN2, etc.). For the filler advertisements, only one advertisement per medical condition was used, which was presented in both of the plots.

\textsuperscript{106} For heartburn (ads Unpaid User (UU) 1 and Unpaid Nonuser (UN) 1):
ad UU1(plot I, $n = 59$): reasonableness: $F (1, 59) < .01; \ p = .976$; effectiveness: $F (1, 59) = .89; \ p = .349$;
ad UN1 (plot II, $n = 59$): reasonableness: $F (1, 59) = .43; \ p = .515$; effectiveness: $F (1, 59) = .77; \ p = .385$.

For seasonal allergies (ads Unpaid User (UU) 2 and Unpaid Nonuser (UN) 2):
ad UU2 (plot I, $n = 59$): reasonableness: $F (1, 59) < .01; \ p = .972$; effectiveness: $F (1, 59) = .12; \ p = .735$;
ad UN2 (plot II, $n = 59$): reasonableness: $F (1, 59) = .10; \ p = .752$; effectiveness: $F (1, 59) = 1.11; \ p = .296$.

For trouble sleeping (ads Unpaid User (UU) 3 and Unpaid Nonuser (UN) 3):

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(\(F(1, 59) = 4.47; p = .039\) for the influence of suffering from or having previously suffered from high cholesterol on the effectiveness scores of one of the advertisements promoting a drug that claimed to lower cholesterol levels), which is well above the alpha level of .004.

5.4.3 Influence of Spurious Message Characteristics on Results

As was discussed in Section 5.2.4, to explore the alternative explanation that participants might base their effectiveness judgments primarily on other, spurious, message characteristics such as ease of understanding, rather than on their judgments about the reasonableness of the advertisements, participants’ judgments concerning three of these spurious message characteristics were investigated. That way, I can assess whether my aim to keep these spurious message characteristics as constant as possible over the whole set of advertisements, so that variances in effectiveness judgments can primarily be traced back to variances in reasonableness judgments, was successful. The spurious message characteristics that I asked participants to rate were “ease of understanding”, “entertainment value” and “similarity to actual advertisements”, in addition to questions concerning the dependent variables “perceived reasonableness” and “perceived effectiveness”. In order to compare the ordinal patterns of scores concerning all of these message characteristics, in Table 5.11 I have ranked the advertisements according to their respective mean scores on the five questions concerning these characteristics, with the advertisements with the lowest mean scores on the left-hand side of the table and the advertisements with the highest mean scores on the right-hand side of the table ( a “/” symbol indicates that the mean scores of two or more messages are equal).

ad UU3 (plot I, \(n = 59\)): reasonableness: \(F(1, 59) = .77; p = .384\); effectiveness: \(F(1, 59) = 2.31; p = .134\);
ad UN3 (plot II, \(n = 59\)): reasonableness: \(F(1, 59) = .34; p = .563\); effectiveness: \(F(1, 59) = .37; p = .547\).
For asthma (ads Paid User (PU) 4 and Paid Nonuser (PN) 4):
ad PU4 (plot I, \(n = 59\)): reasonableness: \(F(1, 59) = .06; p = .816\); effectiveness: \(F(1, 59) = .12; p = .729\);
ad PN4 (plot II, \(n = 59\)): reasonableness: \(F(1, 59) = .06; p = .811\); effectiveness: \(F(1, 59) = .08; p = .776\).
For high cholesterol (ads Paid User (PU) 5 and Paid Nonuser (PN) 5):
ad PU5 (plot I, \(n = 59\)): reasonableness: \(F(1, 59) = .48; p = .493\); effectiveness: \(F(1, 59) = .15; p = .701\);
ad PN5 (plot II, \(n = 59\)): reasonableness: \(F(1, 59) = 1.18; p = .282\); effectiveness: \(F(1, 59) = 4.47; p = .039\).
For migraine (ads Paid User (PU) 6 and Paid Nonuser (PN) 6):
ad PU6 (plot I, \(n = 59\)): reasonableness: \(F(1, 59) = .16; p = .689\); effectiveness: \(F(1, 59) = .64; p = .426\);
ad PN6 (plot II, \(n = 59\)): reasonableness: \(F(1, 59) = 1.88; p = .176\); effectiveness: \(F(1, 59) = 4.25; p = .044\).
For rheumatoid arthritis (ad Reasonable Filler (RF) 7):
RF7 (both plots, \(n = 122\)): reasonableness: \(F(1, 120) = .12; p = .725\); effectiveness: \(F(1, 120) = .41; p = .524\).
For high blood pressure (ad Fallacious Filler (FF) 8):
FF8 (both plots, \(n = 122\)): reasonableness: \(F(1, 120) = .40; p = .53\); effectiveness: \(F(1, 120) = .48; p = .490\).
The Perceived Reasonableness and Effectiveness of Sound versus Fallacious Experience-based Authority Arguments

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Rank (lowest to highest)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ease of understanding (from least easy to understand to most easy to understand)</td>
<td>FF8 UN3 / PN4 PN6 UN2 UN1 UU2 UU1 PN5 PU4 UN1 PU5 / PU6 / UU3 RF7</td>
</tr>
<tr>
<td>Entertainment value (from least entertaining to most entertaining)</td>
<td>RF7 UN3 FF8 PN6 PN4 / PN5 UN2 UU1 PU5 PU6 / UN1 UU2 UU3 PU4</td>
</tr>
<tr>
<td>Similarity to actual advertisements (from least similar to actual advertisements to most similar to actual advertisements)</td>
<td>UN3 FF8 PU6 PU5 PN5 UN1 PN4 PN6 PU4 / UU2 UN1 UN2 RF7 UU3</td>
</tr>
<tr>
<td>Perceived reasonableness (from least reasonable to most reasonable)</td>
<td>PN5 UN3 / PN4 PN6 UN2 UN1 FF8 PU5 / PU4 / PU6 UN1 UU2 / UU3 RF7</td>
</tr>
<tr>
<td>Perceived effectiveness (from least effective to most effective)</td>
<td>PN5 UN3 PN4 PN6 UN2 / UN1 FF8 PU5 PU4 PU6 UU1 / UU2 UU3 RF7</td>
</tr>
</tbody>
</table>

Table 5.11. Ranking of advertisements (low to high) based on mean scores for the questions concerning ease of understanding, entertainment value, similarity to actual advertisements, perceived reasonableness and perceived effectiveness. UU = Unpaid User, UN = Unpaid Nonuser, PU = Paid User, PN = Paid Nonuser, RF = Reasonable Filler, FF = Fallacious Filler.

From these ranking sequences it can be seen that there is an obvious relationship between the reasonableness and effectiveness scores, a relationship that was also reported in Section 5.4.1. The ranking of advertisements according to perceived reasonableness scores is highly similar to the ranking of advertisements according to perceived effectiveness. For instance: for both reasonableness and effectiveness, ad PN (Paid Nonuser) 5 was rated lowest, as can be seen in the lower left-hand side of the table, and ad RF (Reasonable Filler) 7 was rated highest, as can be seen in the lower right-hand side of the table.

Table 5.11 shows that the relationship with effectiveness is clearly not as strong for the spurious message characteristics as it is for reasonableness. While for a limited number of individual advertisements the scores of spurious message characteristics show similar ordinal patterns with effectiveness scores, none of the message characteristics show such a
similar ranking sequence with effectiveness as reasonableness does. Although the factors “ease of understanding”, “entertainment value” and “similarity to actual advertisements” do appear to have a certain amount of correspondence with effectiveness for a selected number of advertisements, they cannot predict effectiveness scores with the same order of magnitude in which reasonableness scores can predict effectiveness scores. This leads me to conclude that I can safely assume that variances in effectiveness scores were primarily due to the perceived reasonableness of the argumentation in the advertisements rather than primarily due to variances in other message characteristics.

5.5 Conclusion

The research question that the current chapter set out to answer was the following (research question 4):

Are the analytically established soundness conditions regarding experience-based authority argumentation in direct-to-consumer medical advertisements in line with evaluation criteria that are applied by readers of these advertisements?

For practical reasons, a choice was made not to put all soundness conditions to the test that were discussed in the analytical part of this dissertation, but to restrict the experiment to the critical question whether there is no notable reason to assume that an endorser has not experienced the desirable effect of the advertised product (the Desirable Consequence question) and the critical question whether there is no notable reason to assume that the endorser only claims that the product is effective because (s)he profits from claiming this (the Only for Profit question).

For the Desirable Consequence question, we may conclude, as an answer to research question 4, that readers of medical advertisements apply an evaluation criterion that is in agreement with the criterion reflected in the critical question that was established on analytical grounds in Part I of the dissertation. The findings of the current experiment indicate that the Desirable Consequence question is not just problem valid, but also intersubjectively valid.\(^{107}\) In the experiment that was presented in the current chapter, advertisements in which the endorser had experienced the product’s effectiveness were perceived to be significantly more reasonable and effective than advertisements in which the endorser had not experienced this effectiveness. 25% of the variance in participants’ reasonableness judgments and 35% of the variance in participants’ effectiveness judgments can be explained by the factor “Experienced”, which can be classified as large Effect Sizes.

For the other critical question that was tested, the Only for Profit question, we cannot incontrovertibly conclude whether this question indeed plays a role for the readers of DTC medical advertisements. Although the raw data pointed in the projected

\(^{107}\) We have to be careful with generalizations to the entire population of ordinary language users, however: it could of course be the case that people’s judgments in an experimental situation are slightly different from their actual judgments in a real-life situations.
direction, and responses to the post-experimental questions that participants were requested to answer indicated that participants found it significantly more reasonable when someone endorsed a product while (s)he was not compensated for this, then when (s)he endorsed the product while (s)he was compensated for this, the experiment did not yield such obvious results for the variable “Not Compensated” as it did for the variable “Experienced”. Advertisements in which the endorser was compensated were rated as less reasonable than advertisements in which the endorser was not compensated, but these results were marginally significant, with a small Effect Size.

The purpose of the current experiment was to test whether particular soundness conditions play a role for readers of DTC medical ads, in preparation for a second experiment in which anticipation maneuvers concerning these critical questions are tested. Taking into account that the results for the Only for Profit question were marginally significant, combined with the finding that the Effect Size for that critical question was small (an ES of .01 for both the reasonableness and the effectiveness scores), we have to conclude that it would not be feasible to study the effect of anticipation maneuvers regarding the Only for Profit question. For this reason, the second experiment, which will be discussed in the next chapter, will be restricted to the critical question whether there is no notable reason to assume that the endorser has not experienced the desirable effect of the advertised product. Since that critical question clearly plays some sort of role for the readers of medical advertisements, the next step is to investigate how these readers’ judgments will be influenced by strategic maneuvers aimed at anticipating this question.

As to the secondary aim of the experiment, to investigate whether there is a relation between perceived reasonableness and perceived effectiveness of experience-based authority arguments in DTC medical advertisements as might theoretically be expected, that relation was clearly found in the results. Reasonableness and effectiveness scores were strongly correlated in every single one of the advertisements in the experiment. That finding corroborates the findings reported in earlier research by O’Keefe and van Eemeren, Garssen and Meuffels that reasonable arguments are perceived to be more effective than unreasonable arguments.

Moreover, the finding that satisfactory answers concerning the Desirable Consequence question are not only judged to be significantly more reasonable, but also significantly more effective than unsatisfactory answers to that question, justifies an investigation into the perceived effectiveness of anticipation maneuvers concerning that question. Now that it has been shown that satisfactory answers to a particular question are perceived as more effective than unsatisfactory answers, it will be possible to study how the perceived effectiveness of experience-based authority arguments is influenced by particular sound versus derailed anticipation maneuvers in the next experiment.
The Perceived Reasonableness and Effectiveness of Ambiguous Anticipation Maneuvers concerning Experience-based Authority Arguments

6.1 Introduction

6.1.1 Aims of the Experiment

In the analytical part of this dissertation, I have introduced the concept of strategic maneuvering with the anticipation of critical questions in direct-to-consumer (DTC) medical advertisements (Chapter 4). Because an advertisement is an implicit discussion, advertisers try to imagine how a consumer may respond to their argumentation, and take this consumer’s anticipated critical reactions into account in their advertisements. The anticipation of critical questions concerning experience-based authority argumentation is a goal that an advertiser can accomplish by means of different kinds of maneuvers, both sound and fallacious. The research question that the current chapter sets out to answer, is the following (research question 5):

To what extent do readers of direct-to-consumer medical advertisements differentiate between sound and derailed strategic maneuvers that anticipate critical questions concerning the use of experience-based authority argumentation?

In order to answer this question, an experiment was conducted in which participants were asked to judge the reasonableness and effectiveness of the experience-based authority argumentation in artificial advertisements that contained either a sound anticipation maneuver or a derailed anticipation maneuver (henceforth referred to as “experiment II”). Anticipation maneuvers providing a satisfactory answer to a critical question were chosen to represent sound anticipation maneuvers, since these maneuvers pose a reasonable contribution to the process of resolving a difference of opinion on the merits. Maneuvers providing an unsatisfactory answer to a critical question and ambiguous anticipation maneuvers were selected to represent derailed maneuvers, since
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acknowledging that a critical question cannot be answered satisfactorily and nonetheless maintaining one’s argument (in case of providing an unsatisfactory answer), as well as hindering the antagonist in determining the outcome of the intersubjective testing procedure (in case of exploiting ambiguity concerning an answer to a critical question), can both be considered violations of the pragma-dialectical Argument Scheme Rule. In what follows, I will further explain the concept of exploiting ambiguity concerning an answer to a critical question, before turning to the experiment in which ambiguous anticipation maneuvers were put to the test.

An example of exploiting ambiguity concerning an answer to a critical question is the following. Instead of stating that an endorser is an actual user of a medical product and has experienced its positive results, advertisers sometimes claim that an endorser is an “actual patient”, which literally only means that this person suffers from the disease that the drug is meant to treat, not that the patient has used the drug, let alone that it has worked for him or her. In order to make sense of the words “actual patient” in this context, readers may interpret them as a claim that this person has, probably successfully, used the advertised drug, because (s)he is willing to endorse it. Readers would be justified in going by the stronger interpretation that the endorser has positive experiences with the drug. However, there is reason to assume that a weaker meaning, namely that the endorser is a patient of the disease the drug claims to remedy but has not used the advertised drug, should actually be used as a basis for deciding whether a critical question can be answered satisfactorily. For if it would be the case that the drug actually alleviated the endorser’s symptoms, why would the advertiser not just say so, rather than choosing a vague formulation like “actual patient”?

When we would go by the weaker meaning of the words “actual patient”, we would have to answer the question whether the endorser actually experienced the advertised drug’s desirable effect unsatisfactorily. If we would choose to go by the stronger meaning that the drug actually cured or alleviated the patient’s symptoms, however, this critical question should be answered satisfactorily. The advertiser’s ambiguous choice of words invites readers to interpret a claim in a stronger sense in determining whether a critical question can be answered satisfactorily, while there is reason to assume that we should go by the weaker meaning. Because such maneuvers make it difficult for a reader to assess what the outcome of the intersubjective testing procedure should be, I consider these ambiguous anticipation maneuvers to be derailments of strategic maneuvering, violating the pragma-dialectical Argument Scheme Rule.

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108 See Chapter 3 for an explanation of the intersubjective testing procedure in which discussants determine whether an argument scheme is correctly applied.

109 A third type of anticipation maneuver that was discussed in Chapter 4, besides providing an answer to a critical question and exploiting ambiguity concerning an answer to critical question, is facilitating a satisfactory answer to a critical question. In facilitating a satisfactory answer to a critical question, an advertiser creates opportune circumstances for a reader to think of a satisfactory answer to a critical question. The reason why this type of anticipation maneuver is not included in the current experiment is that facilitating a satisfactory answer to a critical question is not in and of itself a reasonable or fallacious maneuver (see Chapter 4), which makes facilitating maneuvers less suitable for experimentally contrasting sound maneuvers with derailed maneuvers.
The current experiment, experiment II, will test exploitations of ambiguity concerning the anticipation of one of the critical questions that was tested in experiment I (reported in Chapter 5): whether there is no notable reason to assume that the endorser has not actually experienced the positive effects of the product (s)he endorses (the Desirable Consequence question). Whereas experiment I only contained clear-cut cases of that critical question being answered satisfactorily unsatisfactorily, the current study will also include items in which an ambiguous anticipation maneuver with the words “actual patient” is used to suggest that the critical question concerning the endorser having experienced the product’s desirable effect can be answered satisfactorily.

Just as in the previous experiment, both the perceived reasonableness and the perceived effectiveness of authority arguments in artificial advertisements will be measured. The current experiment will compare the reasonableness and effectiveness judgments of advertisements in which a satisfactory or unsatisfactory answer to a critical question is provided in a straightforward manner with those of advertisements in which ambiguity is exploited to anticipate that critical question.

Perceived Reasonableness
If the readers of direct-to-consumer medical advertisements are in fact sensitive to the difference between sound and derailed strategic maneuvers that anticipate critical questions regarding the use of experience-based authority argumentation, then we would expect participants to judge ambiguous anticipation maneuvers to be less reasonable than maneuvers in which a satisfactory answer to a critical question is provided in a straightforward manner. What about the cases, however, in which a particular critical question is not satisfactorily answerable in any way, so that providing an answer to that question would mean that an advertiser has to provide an unsatisfactory answer? Providing an unsatisfactory answer to a critical question, and nonetheless still maintaining one’s argument, could be considered a violation of the Argument Scheme Rule, and is therefore just as fallacious as using an ambiguous anticipation maneuver. But will ambiguous anticipation maneuvers be considered equally unreasonable as unsatisfactory answers

110 The other critical question that was studied in experiment I – whether there is no notable reason to assume that an endorser only claims something because (s)he profits from this – will not be tested in experiment II. The results that were obtained for this critical question were marginally significant, and indicated a small Effect Size, which makes the role that this question plays for the readers of DTC medical advertisements negligible compared to the question concerning having experienced the product’s effects.

111 The words “be perceived as less reasonable” should be interpreted as “receive a lower score on a gradual scale of reasonableness” (the scale on which I will measure my participants’ reasonableness judgments will be further explained in Section 6.2.4). In this sense, I use the words “less reasonable” as equivalent to the words “more unreasonable”: I do not mean to say that ambiguous anticipation maneuvers will be judged as reasonable in an absolute sense. The same holds for the words “more reasonable”: this expression should be interpreted as equivalent to “less unreasonable”, without any reference to reasonableness or unreasonableness in an absolute sense.

112 Because an advertisement is an implicit discussion, withdrawing one’s argument is not possible here, so it might seem unfair to consider the fact that an advertiser “maintains” his argument as unreasonable. However, we consider the antagonist’s role in this discussion to be represented by the anticipated consumer’s criticism that an advertiser takes into account. Therefore, we can consider an advertiser’s choice to put
to critical questions? Or will ambiguous anticipation maneuvers perhaps be judged as *more* reasonable than unsatisfactory answers to critical questions, since ambiguous anticipation maneuvers lead readers to – falsely – believe that a critical question can in fact be answered satisfactorily even though it cannot?

The latter explanation is based on results reported by van Eemeren, Garssen and Meuffels (2012b; 2015) – although concerning different types of fallacies – regarding experiments in which abusive *ad hominem* fallacies (2012b) and *ad baculum* fallacies (2015) proved to be perceived as more reasonable when they were “disguised” than when they were clear-cut. In real life these fallacies can remain undetected, as the authors explain, when they take on a reasonable appearance by mimicking reasonable critical reactions (in case of the *ad hominem*) or well-meant advice (in case of the *ad baculum*). I expect ambiguous anticipation maneuvers to function in a somewhat similar vein: I expect them to be judged as more reasonable than clear-cut unsatisfactory answers to critical questions, because the ambiguous anticipation maneuvers mimic satisfactory answers to critical questions.

**Perceived Effectiveness**

The results of experiment I showed a strong correlation between the reasonableness and effectiveness scores of the artificial advertisements. Based on these results, I expect that ambiguous anticipation maneuvers will not just be perceived as less *reasonable* than satisfactory answers to critical questions, but also as less *effective*.

The relation between the perceived effectiveness of ambiguous anticipation maneuvers and *unsatisfactory* answers to critical questions is expected to be as follows. Because of the strong correlation between reasonableness and effectiveness that was found in experiment I, and because there is reason to believe that ambiguous anticipation maneuvers will be perceived as *more* reasonable than unsatisfactory answers since they create the (false) impression that a critical question can be answered satisfactorily, ambiguous anticipation maneuvers can be expected to also be more *effective* than unsatisfactory answers.

On top of that theoretical reason, there is a practical reason for expecting that ambiguous anticipation maneuvers will be judged as more effective than unsatisfactory answers to critical questions. The fact that examples of ambiguous anticipation maneuvers can be found in practice suggests that advertisers believe that they are effective. If these maneuvers would not actually contribute to an advertiser’s rhetorical goal of convincing a consumer that (s)he should use a certain medical product, then it would be strange to find them in empirical reality, especially when taking into account the considerable *cost* of DTC medical ads for pharmaceutical companies.113 If these maneuvers would be

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113 As was discussed in Chapter 4, data by Nielsen showed that in 2013 pharmaceutical companies in the United States spent $1.09 billion on direct-to-consumer pharmaceutical advertising in magazines, and $149.2 million on direct-to-consumer pharmaceutical advertising in newspapers.
perceived as less effective than satisfactory answers to critical questions and less effective than unsatisfactory answers to critical questions, then why would they be used at all?

For the abovementioned theoretical as well as practical reasons, I believe that ambiguous anticipation maneuvers will be judged as less effective than satisfactory answers to critical questions, but as more effective than unsatisfactory answers to critical questions. This would mean that it would make sense for advertisers to use these maneuvers as an alternative to providing an unsatisfactory answer – which could be an explanation for these maneuvers’ occurrence in actual advertisements – but that in case a satisfactory answer is available, it would be preferable for advertisers to straightforwardly provide it – which would explain the fact that satisfactory answers to critical questions can also be found in actual advertisements.

The reasonableness results of the current experiment can indicate whether ambiguous anticipation maneuvers prevent readers from seeing that an argument is unsound, or whether readers are in fact sensitive to the difference between sound uses and fallacious uses of experience-based authority arguments regardless of whether the advertiser uses an ambiguous anticipation maneuver. The effectiveness results – in addition to possibly corroborating the finding from experiment I that reasonable arguments are perceived to be more effective than unreasonable arguments (as was already suggested by authors such as O’Keefe and van Eemeren, Garssen and Meuffels) – can show us whether these maneuvers “work” in practice. Ambiguous anticipation maneuvers occur in real DTC medical advertisements, but are they actually successful in persuading consumers to ask their doctor for a certain medical product? Or could an advertiser just as well provide an answer to a critical question in a straightforward manner in order to be effective?

6.1.2 Hypotheses

In the previous section, I have explained the concept of exploiting ambiguity to anticipate the Desirable Consequence question. The relationship between the perceived reasonableness and effectiveness of such ambiguous maneuvers and that of clear-cut satisfactory or unsatisfactory answers to the same critical question, is hypothesized to be as follows.

**Perceived Reasonableness**

First, because we assume that readers of direct-to-consumer medical advertisements are in principle able to differentiate between sound and derailed strategic maneuvers – the ability of ordinary language users to differentiate between sound discussion moves and fallacies was reported in several experiments conducted by van Eemeren, Garssen and Meuffels (2009) – I expect ambiguous anticipation maneuvers to be perceived as less reasonable than satisfactory answers to critical questions. This relationship is explicated in the following hypothesis:114

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114 This hypothesis, as well as the other three hypotheses in this section, does not concern absolute scores – whether something is rated either as reasonable or as unreasonable in an absolute sense – but only concern the difference between the scores for one type of message and the scores for another type of message. See Chapter 5, Section 5.1.2, for a discussion of this choice to include only relative hypotheses.
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Authority arguments in direct-to-consumer medical advertisements are perceived as less reasonable when an ambiguous anticipation maneuver is used to suggest that an endorser has experienced the desirable effect of the advertised product, than when it is clearly stated in the advertisement that the endorser has experienced the desirable effect of the advertised product.

Second, although ambiguous anticipation maneuvers are theoretically just as fallacious as providing an unsatisfactory answer to a critical question and nonetheless maintaining one’s argument, I expect these maneuvers to be judged as more reasonable than unsatisfactory answers to critical questions, because they may lead readers to – falsely – believe that a critical question can be answered satisfactorily even though it cannot. This expectation is based on the findings of van Eemeren, Garssen and Meuffels (2012b; 2015) concerning “disguised” ad hominem and ad baculum fallacies being perceived as more reasonable than clear-cut forms of these fallacies. My expectation is expressed in the following hypothesis:

H₁ Authority arguments in direct-to-consumer medical advertisements are perceived as more reasonable when an ambiguous anticipation maneuver is used to suggest that an endorser has experienced the effect of the advertised product, than when it is clearly stated in the advertisement that the experience endorser has not experienced the desirable effect of the advertised product.

Perceived Effectiveness

Two further hypotheses can be formulated regarding perceived effectiveness. These two hypotheses are based on the findings of experiment I, as well as on findings in earlier research by van Eemeren et al. and O’Keefe that reasonable arguments are generally perceived to be more effective than unreasonable arguments. The confirmation or rejection of these hypotheses concerning effectiveness can provide insights as to how persuasive ambiguous anticipation maneuvers are, compared to satisfactory and unsatisfactory answers, which could explain advertisers’ choices in their strategic maneuvering to either provide an answer to a critical question or to ambiguously anticipate an answer to this question. The hypotheses concerning effectiveness, in line with the two hypotheses concerning perceived reasonableness, are the following two:

H₂ Authority arguments in direct-to-consumer medical advertisements are perceived as less effective when an ambiguous anticipation maneuver is used to suggest that an endorser has experienced the desirable effect of the advertised product, than when it is clearly stated in the advertisement that the endorser has experienced the desirable effect of the advertised product.

H₃ Authority arguments in direct-to-consumer medical advertisements are perceived as more effective when an ambiguous anticipation maneuver is used to suggest that an endorser has experienced the desirable effect of the advertised product, than when it is clearly stated in the advertisement that the endorser has not experienced the desirable effect of the advertised product.
The remainder of this chapter will be dedicated to the method and results of the experiment in which the four abovementioned hypotheses were put to the test.\textsuperscript{115}

\section*{6.2 Method}

\subsection*{6.2.1 Independent Variable: Satisfactory Answer, Unsatisfactory Answer or Ambiguous Anticipation Maneuver}

The four hypotheses presented in Section 6.1.2 were tested by investigating the difference in perceived reasonableness and perceived effectiveness between direct-to-consumer medical advertisements in which a \textit{satisfactory} answer to a critical question is provided, in which an \textit{unsatisfactory} answer is provided, and in which an \textit{ambiguous anticipation maneuver} is used to suggest that a question can be answered satisfactorily. This was tested for the Desirable Consequence question whether there is no notable reason to assume that the endorser has not actually experienced the desirable effect of the product that (s) he endorses. The following independent variable was manipulated in the research:

1 \textbf{Experienced (E)}: The extent to which it is made clear or ambiguously suggested in the advertisement that an endorser has experienced the desirable effect of the advertised product.

This independent variable has three levels. The first two levels correspond to the levels of this variable that were tested in experiment I, the third one is a new addition:

1a \textbf{Experienced Yes}: It is clear from the advertisement that the endorser has experienced the desirable effect of the advertised product.

1b \textbf{Experienced No}: It is clear from the advertisement that the endorser has \textit{not} experienced the desirable effect of the advertised product.

1c \textbf{Experienced Amb}: An ambiguous anticipation maneuver is used in the advertisement to suggest that the endorser has experienced the desirable effect of the advertised product.

The independent variable was manipulated by including a statement in the small print at the bottom of the artificial advertisements that were used in the current study, that either mentioned that the advertised product had alleviated the endorser's symptoms, or that the endorser was no actual user of the advertised product, or that the endorser was an “actual patient” (see Section 6.2.3 for a more detailed discussion of the experimental messages that were used).

\subsection*{6.2.2 Design: Multiple Message Design with Repeated Measurements}

Three experimental conditions were used in the research, each operationalizing one level of the independent variable. Each condition had its own corresponding Ad Type: “User”, in which it was stated that the endorser had experienced the product's effectiveness, “Nonuser”, in which it was stated that the endorser was not an actual user of the drug,
and “Ambiguous”, in which an ambiguous anticipation maneuver was used to suggest that the endorser had used the drug. These three experimental conditions with their corresponding Ad Types are represented in Table 6.1.

<table>
<thead>
<tr>
<th>Variable Level</th>
<th>1a (Experienced Yes)</th>
<th>1b (Experienced No)</th>
<th>1c (Experienced Amb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Condition</td>
<td>Ad Type “User”: 2 messages</td>
<td>Ad Type “Nonuser”: 2 messages</td>
<td>Ad Type “Ambiguous”: 2 messages</td>
</tr>
</tbody>
</table>

Table 6.1. Experimental conditions.

Just like in experiment I, in experiment II a multiple message design was employed, which means that more than one message was used for each experimental condition. By using several instantiations of the same variable level, a multiple message design enhances both the internal and the external validity of the experiment. If only one advertisement per condition would be used, particular idiosyncratic characteristics of that advertisement which have nothing to do with the experimental condition that the advertisement represents, such as the particular type of drug it promotes, could provide an alternative explanation for the way that experimental condition is perceived by the participants. By using not one, but two messages for each experimental condition, the influence of the particular, “random” characteristics of advertisements is taken into consideration. Using a multiple message design, the variance between the different messages within one experimental condition can be treated as “error” in the statistical analysis of the results, which means that these differences are taken into account in determining the significance of a particular result.116

116 In experiment I, three messages per experimental condition were used instead of two. This larger amount of messages was possible because of the split-plot design employed in experiment I, in which half of the respondents were presented with one half of the experimental conditions and the other half of the respondents were presented with the other experimental conditions. A split-plot design was deemed undesirable in the current experiment, however. If in one plot ambiguous anticipation maneuvers would only be contrasted with satisfactory answers to critical questions, they might be rated differently than in the other plot where they would only be contrasted with unsatisfactory answers to critical questions, causing a skewedness between the two plots. Using three plots would make the number of participants judging each particular advertisement too low, which is why the most desirable option was to present all participants with all three experimental conditions in just one plot. Because a pre-test had shown that it was too taxing for participants to judge more than eight advertisements in total, a choice was made to include only two messages for each of the three experimental conditions (which adds up to six experimental messages), supplemented with two filler messages.
Besides the three types of experimental messages listed in Table 6.1, two filler messages were included:

**Ad Type Reasonable Filler**: 1 message where the authority argumentation is replaced by a sound symptomatic argument based on clinical research

**Ad Type Fallacious Filler**: 1 message where the authority argumentation is replaced by an *argumentum ad populum* fallacy

These two filler messages, the same two advertisements that were used in experiment I, were included to reduce the chances that participants would guess what the aims of the experiment were, thereby preventing them from only providing answers in line with what they believed the experimenter expected of them, as was explained in Chapter 5. Furthermore, the results concerning the filler messages were used as a benchmark – a gate-keeper – for the validity of my experiment, by checking whether the filler message containing the *ad populum* fallacy was indeed perceived as significantly less reasonable than the filler message containing a sound argument, as might be expected from earlier research (see van Eemeren, Garssen & Meuffels, 2009, pp 182-185).

In addition to the multiple message design discussed above, a *repeated measurements design* was used, meaning that each individual participant was exposed to all instantiations of all the levels of my independent variable. Rather than asking each participant to only rate one constructed advertisement, each participant was asked to answer questions about eight different advertisements in total.

### 6.2.3 Materials: Artificial Advertisements

The independent variable, which has three levels, was operationalized in artificial DTC medical advertisements. Just as in experiment I, the advertisements that were used in the experiment were artificial, in order to maximize the internal validity of the experiment. They were constructed, hypothetical approximations of direct-to-consumer medical advertisements rather than actual ones, to reduce the chances of spurious variables influencing the participants’ reasonableness judgments (see Chapter 5 for a more detailed discussion of the choices made in the construction of these artificial advertisements). Figure 6.2 represents one of the messages that was used in the experiment: an advertisement of the Ad Type “Ambiguous”.

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If you are worried about your cholesterol…

Ask your doctor about Adipem!

- Barbara Clark,
  Dayton, IA

Adipem (adipestatin calcium, 100 mg tablets) is prescribed to lower cholesterol levels and to decrease the buildup of plaque in arteries.

Important safety information:

Do not mix with alcohol. Possible side effects include muscular pain, nausea and diarrhea. Not for use in children. Please read the important product information on the adjacent page.

Talk to your doctor about your symptoms and find out if Adipem is right for you. Available by prescription only.

You are encouraged to report negative side effects of prescription drugs to the FDA. Visit www.fda.gov/medwatch, or call 1-800-FDA-1088.

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Barbara Clark is an actual patient.

Figure 6.2. Sample message of the Ad Type Ambiguous.
Eight different advertisements were used, promoting eight different fictitious drugs. The advertisements all featured a fictitious person who endorsed the product with a quote such as “If you are worried about your cholesterol… Ask your doctor about Adipem!” The quote was followed by a name and place of residence, and accompanied by a photograph of the supposed endorser. Furthermore, to operationalize the independent variable, the small print at the bottom of the advertisement stated either that the advertised product had alleviated the endorser’s symptoms, or that the endorser was not an actual user of the advertised product, or that the endorser was an “actual patient”. To ensure that all text would be readable for the participants, the small print was represented in font size 10, although actual advertisements sometimes feature smaller font sizes. Because of legal requirements, the small print featured the statement “individual results may vary” every time that this small print included concrete references to the effectiveness of a product for a particular user.

The advertisements were based on the same templates that were used in experiment I, but the quotes at the top of the advertisements, as well as the small print at the bottom, were slightly altered. First, references to the endorser being (not) compensated for appearing in the advertisement were removed, since the independent variable corresponding to being compensated was not tested in the current experiment anymore. Second, two of the advertisements were altered so that they represented the new level of the independent variable Experienced (“Amb”), in which an ambiguous anticipation maneuver was used (operationalized by the text “… is an actual patient”).

Figure 6.3 shows an overview of the characteristics of the messages that were used in experiment II. In Appendix D, sample messages of the three experimental conditions are provided (the filler messages were identical to those used in experiment I, which can be found in Appendix A).

117 The filler messages Reasonable Filler and Fallacious Filler did not feature an endorser, so they did not feature quotes, names or places of residence, and their small print did not include the operationalization of the independent variable. Instead, advertisement Reasonable Filler included the claim that clinical research had shown the drug to be effective, with more information about that clinical research in the small print, and advertisement Fallacious Filler included the claim that over one million people asked their doctors about the drug, with more information about the source of that number in the small print.
<table>
<thead>
<tr>
<th>Ad</th>
<th>Experimental Condition</th>
<th>Fictitious Drug</th>
<th>Fictitious Person</th>
<th>Endorsement</th>
<th>Small print</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1</td>
<td>User: Experienced = Yes</td>
<td>Sternutam (seasonal allergies)</td>
<td>Margaret Walker, Lexington, MA</td>
<td>If your allergies seem to be controlling your life… Ask your doctor about Sternutam!</td>
<td>Margaret Walker has achieved a significant decrease of seasonal allergy symptoms after using Sternutam. Individual results may vary.</td>
</tr>
<tr>
<td>U2</td>
<td>User: Experienced = Yes</td>
<td>Somnum (trouble sleeping)</td>
<td>Jennifer Nelson, Madison, KS</td>
<td>If you have trouble sleeping… Ask your doctor about Somnum!</td>
<td>Jennifer Nelson has achieved a significant improvement in her ability to fall asleep after using Somnum. Individual results may vary.</td>
</tr>
<tr>
<td>N3</td>
<td>Nonuser: Experienced = No</td>
<td>Crotaphos (migraine)</td>
<td>Lisa King, Ashland, OR</td>
<td>If you want relief from your migraine pains… Ask your doctor about Crotaphos!</td>
<td>Lisa King is not an actual user of Crotaphos.</td>
</tr>
<tr>
<td>N4</td>
<td>Nonuser: Experienced = No</td>
<td>Pralivia (heart-burn)</td>
<td>Joyce Thompson, Greenville, GA</td>
<td>If you suffer from heart-burn day after day… Ask your doctor about Pralivia!</td>
<td>Joyce Thompson is not an actual user of Pralivia.</td>
</tr>
<tr>
<td>A5</td>
<td>Ambiguous: Experienced = Amb</td>
<td>Adipem (high cholesterol)</td>
<td>Barbara Clark, Dayton, IA</td>
<td>If you are worried about your cholesterol… Ask your doctor about Adipem!</td>
<td>Barbara Clark is an actual patient.</td>
</tr>
<tr>
<td>A6</td>
<td>Ambiguous: Experienced = Amb</td>
<td>Spirant (asthma)</td>
<td>Elaine Simmons, Bristol, CO</td>
<td>If your asthma makes life difficult… Ask your doctor about Spirant!</td>
<td>Elaine Simmons is an actual patient.</td>
</tr>
<tr>
<td>RF7</td>
<td>Reasonable Filler: Sound symptomatic argumentation</td>
<td>Discessum (rheumatoid arthritis)</td>
<td>(N/A)</td>
<td>Clinical research has shown that Discessum can help relieve rheumatoid arthritis pain. Ask your doctor!</td>
<td>Clinical research conducted by Triamax has shown a significant decrease in pain, stiffness and swelling in rheumatoid arthritis patients having used Discessum (Triamax-2013-854).</td>
</tr>
<tr>
<td>FF8</td>
<td>Fallacious Filler: Argumentum ad populum fallacy</td>
<td>ReleVena (high blood pressure)</td>
<td>(N/A)</td>
<td>Over one million people asked their doctors about ReleVena. Ask your doctor too!</td>
<td>The finding that over one million people asked their doctors about ReleVena was reported in a nationwide survey conducted by Fouradol in July 2013.</td>
</tr>
</tbody>
</table>

* U = User • N = Nonuser • A = Ambiguous • RF = Reasonable Filler • FF = Fallacious Filler

Figure 6.3. Characteristics of the artificial advertisements used in experiment II.
6.2.4 Dependent Variables and Questions

In order to examine the effect of the aforementioned independent variable on the judgments of DTC medical advertisements by ordinary language users, two dependent variables were measured: perceived reasonableness and perceived effectiveness, like in experiment I. Perceived reasonableness was measured by asking participants to indicate to what extent they agreed with the statement that they find the depicted person’s endorsement a reasonable argument for the claim that people suffering from [medical condition] should use [advertised drug] – where the words between brackets were replaced with the applicable medical conditions and drugs for each advertisement. The dependent variable “effectiveness” was measured by referring to the consecutive perlocutionary consequence that an advertiser conventionally wants to achieve in the communicative activity type of DTC medical ads: that the reader will ask his or her doctor for the advertised drug. Participants were asked to indicate to what extent they agreed with the statement that because of the depicted person’s endorsement, they would ask their doctors about the advertised drug if they were suffering from the condition that the drug was supposed to remedy. For both the perceived reasonableness question and the perceived effectiveness question, participants could indicate their agreement on seven-point Likert-type scales ranging from “disagree very strongly” to “agree very strongly”.

Like in experiment I, beyond these two dependent variables three additional questions were added to the questionnaire: ease of understanding, entertainment value, and similarity to actual advertisements. Participants were asked to indicate to what extent they agreed with the statements “I find this advertisement easy to understand”, “I find this advertisement entertaining”, and “this advertisement looks like an advertisement that I might encounter in an actual magazine”. Once more, the respondents could indicate their level of agreement on a seven-point Likert-type scale ranging from “disagree very strongly” to “agree very strongly”.

These additional questions were included in order to mask the actual goal of the research, as so called “distractors”. In experiment I, the results of these additional questions were also used to check whether the effectiveness scores of the advertisements were influenced by any of these “spurious” message characteristics more so than they were by the reasonableness of the advertisements, but this was found not to be the case: the relation between reasonableness and effectiveness scores was much stronger than that between any of the spurious message characteristics and effectiveness. Because the same template advertisements were used both in experiment I and in experiment II, there is no need to check for the influence of spurious message characteristics once more, since there is no reason to assume that these spurious characteristics function differently in experiment II than they did in experiment I. That is why in experiment II the questions concerning these characteristics are purely used as distractors.

To summarize, the above considerations have led to the following five questions that participants were required to answer for each of the eight advertisements in the

\[\text{118 See Chapter 5, Section 5.2.4, for an explanation of my reasons for using seven-point Likert scales.}\]
To what extent do you agree with the following statements?

I find this advertisement easy to understand.
I find this advertisement entertaining.
This advertisement looks like an advertisement that I might encounter in an actual magazine.

For the following two questions, please take into account the endorsement by a particular person that is presented in the advertisement, as well as any further information that the advertisement provides about this person.

To what extent do you agree with the following statements?

I find this person's endorsement a reasonable argument for the claim that people suffering from heartburn should use Pralivia.
Because of this person's endorsement, I would ask my doctor about Pralivia if I were suffering from heartburn.

Different from experiment I, no post-experimental questionnaire was added after experiment II. The post-experimental questionnaire in experiment I included questions in which participants were asked for their opinion about statements that expressed the levels of the independent variables in the study, such as “If a person who is not a medical professional endorses a drug while (s)he is an actual user of this drug, I find this reasonable”. This was possible because all variable levels in experiment I were clear-cut instances of satisfactory or unsatisfactory answers to critical questions. In experiment II, however, the tested phenomena were less clear-cut: the ambiguous anticipation maneuvers that were tested did not lend themselves to such a direct manner of questioning.

6.2.5 Procedure: Online Questionnaire

Like experiment I, experiment II was conducted by means of an online questionnaire. The participants, who were rewarded for their participation in the study, were first presented with instructions about the questionnaire, without telling them the exact goal of the study. They were informed about the number of advertisements they would be presented with and the precise number of questions they would be required to answer about each advertisement. They were also informed that the advertisements they would

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119 The questions listed here correspond to an advertisement for the fictitious drug Pralivia that is prescribed to treat the effects of heartburn (pain caused by rising stomach acid). The reasonableness and effectiveness questions differed for each advertisement: “Pralivia” and “heartburn” were replaced by the applicable drug and medical condition for each advertisement, and “this person’s endorsement” was replaced by a reference to the applicable type of argumentation in the filler messages.

120 A sample page of the questionnaire (identical to the questionnaire used in experiment I), including the Likert scales, is included in Appendix B.

121 See Chapter 5, Section 5.2.5, for an explanation of my reasons to conduct these experiments online.

122 See Section 6.2.6 for more information concerning the participants and the manner of rewarding them.
be presented with were fictional and that the products promoted in them did not actually exist.

Participants were asked to make sure that they could complete the questionnaire in one sitting. Furthermore, they were warned that in order to make sure that participants carefully read the questions they were presented with, some questions were included to test whether they were paying attention to the instructions and that they would be not be able to continue participating in the study if they failed these attention checks. Participants were then asked to give their informed consent to participate in the study, declaring that they understood that their participation was voluntary and that they could stop their participation at any moment.

If they provided their informed consent, participants were presented with the first page of the questionnaire, on which they were requested to answer a number of demographical questions such as their gender, age, country of residence and highest level of education completed. Participants were also asked to indicate how often they encountered print medical advertisements on a five-point scale ranging from very rarely (less than once per year) to very frequently (several times per week). I chose to ask these questions at the beginning rather than at the end of the questionnaire, so that the experiment could be automatically terminated for participants under 18, for participants not living in the United States, and for participants who reported that they encountered less than one print medical advertisement per year.

After they had provided their demographical information, participants were presented with a DTC medical advertisement. It was introduced with the following text: “Imagine you are reading a magazine and come across the following direct-to-consumer drug advertisement, of which only the first page is depicted here. Not depicted is the adjacent page with detailed product information. Please take a thorough look at this first page. Please take into account the whole page, from the photograph at the top to the small print at the bottom”.

Following the advertisement, participants were asked to indicate, based on the page they just studied, the extent to which they agreed with the five statements that were discussed in Section 6.2.4. They could indicate their agreement on a seven-point Likert-type scale ranging from “disagree very strongly” to “agree very strongly”. Also, an option “do not wish to answer” was added to each question, which participants could select in case they did not understand a question or really did not know what to answer. The option “do not wish to answer” was included to prevent participants from rating a question with a “4” (the middle of the scale) while they in fact had no real opinion to offer about that particular question.

---

123 These attention checks will be further explained towards the end of the current section.
124 Being 18 years or older, being somewhat familiar with DTC medical advertisements and being a US resident were three criteria that participants needed to satisfy in order to be selected to participate in the study. For ethical reasons, children were not allowed to take part in the experiment, and people encountering DTC medical ads less than once per year or people not living in the United States were not deemed to be representative of the target audience of these advertisements.
125 To ensure an equal number of scores per experimental condition, all data of participants who chose the option “do not wish to answer” for one or more questions concerning the advertisements were later excluded from analysis.
Having answered the questions concerning the first advertisement, participants were presented with a different advertisement, again accompanied by five questions. This process was repeated until they had judged all eight advertisements. The advertisements were presented in a random order, with the exception of the first advertisement, which was always one of the two filler messages.

Finally, participants were asked to indicate whether they currently used any prescription medication and to indicate which of the medical conditions in a list following the question they were, or had previously been, afflicted with. This list consisted of the eight medical conditions that the fictional drugs in the study claimed to treat or alleviate: asthma, heartburn, high blood pressure, high cholesterol, migraines, rheumatoid arthritis, seasonal allergies, and trouble sleeping. Upon completion of the questionnaire, participants were debriefed regarding the actual goal of the study and were informed on where to get further information about the research project and how to file a complaint about the study.

Unlike in experiment I, the online questionnaire in experiment II included “attention checks” that respondents were required to pass in order to continue their participation. Because of the large number of participants in experiment I whose data had to be excluded from analysis because these participants took an unrealistically short amount of time to complete the questionnaire, two attention checks were included in experiment II in order to pre-emptively exclude respondents from participation if they showed not to be paying full attention to the questions that were asked. Whether participants were paying attention to the questions was tested by means of two non-experimental questions, on different pages of the questionnaire, to which participants were requested in the instructions directly above the question to select a specific answer out of the list of available answers. If participants read the instructions properly, they supplied the requested answer and could continue with the rest of the questionnaire. If, however, they did not read these instructions carefully and selected one of the other answer options, they were disqualified from further participation and could not continue the online questionnaire – they received a message informing them why they were disqualified.

The method of including attention checks or so-called “screener questions” in questionnaires is becoming increasingly popular among researchers in the social sciences who conduct online experiments with participants who are rewarded for their participation. Berinsky, Margolis and Sances (2013) demonstrated the effectiveness of such screeners for filtering out inattentive respondents. The authors advise researchers to use at least two screener questions in order to reliably filter out inattentive respondents, which is why I included two separate attention checks in two different parts of the questionnaire. The first attention check was included after the demographical questions of the questionnaire. It read as follows (Figure 6.4):
175

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Figure 6.4. First attention check.

When respondents checked only the “all of the above” box, they had passed the attention check and could continue their participation in the experiment. If they checked one or more of the other boxes, they had failed the attention check and were disqualified from further participation.

The second attention check was included after the questions accompanying one of the advertisements (because of the randomization of the order of the advertisements, the page on which the question occurred was different per participant). It read as follows (Figure 6.5):

Figure 6.5. Second attention check.

When respondents selected the option “do not wish to answer”, they had passed the attention check and could continue their participation in the study. If they selected one of the other options, they had failed the attention check and were disqualified from further participation.

Berinsky, Margolis & Sances (2013) warn researchers that excluding participants who fail screener questions will result in a skewed sample: by dropping all inattentive
participants, a researcher might inadvertently be dropping one specific sub-set of a population possessing particular participant characteristics that might generally go together with being inattentive, thereby making it harder to generalize the results of the experiment to the entire population. The alternative of excluding the data of about one-third of my participants from analysis because of the unrealistic amount of time that these participants spent to complete the questionnaire as I did in experiment I, however, would lead to the same skewing effect on the sample as the use of attention checks: being very quick to answer questions might also generally go together with possessing certain participant characteristics that belong to one specific sub-set of a population. The choice of the one method over the other, therefore, is a matter of choosing the lesser of two evils.

For practical reasons, filtering out inattentive respondents pre-emptively by means of attention checks was preferable to excluding participant data at a later stage. Since the online research platform that recruited my participants for me replaces participants who fail attention checks with new participants, the (pre-emptive) exclusion of participants because of a failed attention check does not affect the final sample size, while the (post hoc) exclusion of data based on the time taken by participants to complete the questionnaire does affect the final sample size. Making sure that the final sample size did not become too small was of more importance in experiment II than it was in experiment I.

Although the final sample in experiment I was still big enough to obtain the statistical power that was required for that experiment, experiment II required a larger sample size in order to obtain the same statistical power, as the differences between the levels of the independent variable were assumed to be smaller in experiment II than they were in experiment I. In other words: the differences in reasonableness judgments between ambiguous anticipation maneuvers and clear-cut answers to critical questions in experiment II were expected to be smaller than the differences between satisfactory and unsatisfactory answers measured in experiment I.\(^{126}\)

\subsection*{6.2.6 Participants}

Like in experiment I, the participants for experiment II were recruited through an online research platform that compensates their respondents for their participation by means of credits that can be redeemed for rewards such as gift vouchers or donations to charity. In order to participate, respondents had to fulfill the characteristics that they were US residents, that they were 18 years or older, that they encountered print advertisements for prescription drugs more than once per year, and that they had not taken part in experiment I. As was explained above, participants were excluded from further participation when they failed one of the two attention checks that were incorporated in the questionnaire.

Two hundred participants completed the questionnaire. Just as for experiment I, the data of participants who took 5 minutes or less to complete the questionnaire \((n = 33)\), indicating an average of less than half a minute spent on each page of the questionnaire, were excluded from analysis, because those participants were deemed not to have been able

\(^{126}\) The effects for the independent variable in experiment II were expected to be small to medium, for which a sample of approximately 150 participants is required for an F-test to achieve a statistical power of .80 (see Cohen, 1988, p. 384).
to seriously and attentively study the advertisements in the questionnaire. Additionally, the data of participants who took longer than one hour (n = 5) were excluded from analysis because it was likely that these participants either encountered technical difficulties during their completion of the questionnaire or did not complete the questionnaire in one sitting as they were requested to do. For the remaining participants, the average time taken to complete the questionnaire was 12 to 13 minutes (M = 12.63; SD = 8.57).

The number of 33 participants whose results were excluded because they took less than 6 minutes to complete the questionnaire was considerably lower than the number of 69 participants whose data had to be excluded for the same reason in experiment I. This was believed to be due to the fact that in experiment II, inattentive respondents that might have otherwise ended up with a very short completion time were pre-emptively excluded from further participation if they failed one of the attention checks, which was not the case in experiment I. Finally, to ensure an equal number of scores per experimental condition, all data of respondents who had indicated that they did not wish to answer one or more questions concerning their judgments of the advertisements (n = 3) were excluded from analysis.

These deletions resulted in the following sample of N = 159 participants, of which 106 (67.9 %) were female and 50 (32.1 %) were male. Ages ranged from 18 to 69 years (M = 31.21; SD = 11.47; Mdn = 27). Most participants (60.9 %) had completed a Bachelor’s degree or higher, indicating that my sample is highly educated compared to the entire US population of which 28.8 % possesses a Bachelor’s degree or higher (U.S. Census Bureau, n.d.)

Participants were requested to supply information regarding certain demographical characteristics of which I suspected that they might influence the way they judged the advertisements in my experiment: how often they encountered print advertisements for prescription drugs in newspapers or magazines and whether they currently used any prescription drugs. The randomization checks that were performed to investigate whether these characteristics had a significant effect on participants’ reasonableness and effectiveness scores will be discussed in Section 6.4.2, but for the sake of completeness I will report the general results of these questions here to describe the characteristics of my sample in somewhat more detail.

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127 The percentages that I report in this section regarding the demographical characteristics of my sample are “valid percentages”: they do not include participants of which a certain demographical characteristic is unknown because they indicated that they did not want to answer a particular demographical question. The percentages, therefore, always sum to 100 %. The number of participants who indicated that they did not want to answer a certain demographical question were as follows: n = 3 for gender, n = 3 for educational attainment, and n = 2 for use of prescription drugs. Since the questions concerning age and concerning frequency of encountering medical advertisements in newspapers or magazines were obligatory, in order to ensure that all participants were 18 years or older and at least encountered 1 or more DTC medical advertisements per year, all participants answered those two questions.

128 Randomization checks were executed to test whether any of the participant characteristics discussed in this section influenced the way in which participants judged the advertisements in the experiment. See Section 6.4.2 for the results of these randomization checks.

129 0: no high school degree = 0 %, 1: high school graduate (or equivalent) = 26.3 %, 2: Associate degree = 12.8 %, 3: Bachelor’s degree = 41.0 %, 4: Master’s degree = 12.8 %, 5: Doctorate degree = 7.1 %.
When asked to indicate on a five-point scale how often they encountered print advertisements for prescription drugs in newspapers or magazines, the majority of the participants indicated that they encountered these ads occasionally to frequently. Participants were also asked whether they currently used any prescription drugs. About half of them (51%) indicated that they did, which roughly corresponds to the prescription drug use of the American population at large: the National Center for Health Statistics reports that over the years 2007-2010 (the most recent data reported), 48.5% of Americans indicated to have used at least one prescription drug in the past 30 days (National Center for Health Statistics, 2014).

6.3 Results

6.3.1 Validity Check: Filler Messages

To investigate the validity of my experimental data, I will explore whether my filler messages behaved as we would expect them to do in light of earlier research. Just as in experiment I, my results for the filler message “Reasonable Filler” versus the filler message “Fallacious Filler” will be compared with the quantitative results that were reported by van Eemeren, Garssen and Meuffels for an experiment concerning the argumentum ad populum (2009, pp. 184-185). I will regard this comparison as a “gate-keeper test”: if my filler results showcase the same ordinal pattern that can be found in van Eemeren et al.’s results, which were based on a research design that has been tested by means of numerous replication studies, then I consider the validity of my data to be up to standard.

The results that were found by van Eemeren et al. are represented in Table 6.6; the results that were found in the current study are represented in Table 6.7.

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130 1: very rarely (less than once per year) = 0%; 2: rarely = 24.5%; 3: occasionally = 47.2%, 4: frequently = 19.5%, 5: very frequently (several times per week) = 8.8%. When participants selected option 1: “very rarely (less than once per year)”, they were automatically excluded from the remainder of the questionnaire since they were not considered representative of the general readers of these advertisements, which is why for the final sample the percentage reported for that particular answer is 0%.

131 The specific kinds of sound argumentation that were tested, as well as – more importantly – the institutional context, were different in van Eemeren et al.’s experiment than in mine. Furthermore, van Eemeren et al. used a higher number of messages per experimental condition. All of this makes it difficult to directly compare the absolute scores reported in the different experiments; it is more meaningful to compare the ordinal patterns that were found. See Chapter 5, Section 5.3.1, for a more detailed explanation of the differences between both studies.
The Perceived Reasonableness and Effectiveness of Ambiguous Anticipation Maneuvers

<table>
<thead>
<tr>
<th>Argumentum ad populum (k = 6)</th>
<th>Reasonable populistic argumentation (k = 6)</th>
<th>Reasonable non-populistic argumentation (k = 6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Van Eemeren, Garssen and Meuffels (2009) (N = 48)</td>
<td>2.77 (.80)</td>
<td>5.02 (.78)</td>
</tr>
</tbody>
</table>

Table 6.6. Mean reasonableness scores (including standard deviations between brackets) for argumentum ad populum fallacies versus two kinds of reasonable argumentation as reported by van Eemeren, Garssen and Meuffels (2009, p. 184). N = number of participants; k = number of instantiations.

<table>
<thead>
<tr>
<th>Argumentum ad populum (k = 1)</th>
<th>Reasonable symptomatic argumentation referring to clinical research (k = 1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current study (N = 159)</td>
<td>2.93 (1.46)</td>
</tr>
</tbody>
</table>

Table 6.7. Mean reasonableness scores (including standard deviations between brackets) for argumentum ad populum fallacies versus reasonable argumentation in experiment II. N = number of participants; k = number of instantiations.

Van Eemeren, Garssen and Meuffels (2009, p. 185) calculated Helmert contrasts that showed the argumentum ad populum to be judged as significantly less reasonable than the two kinds of sound argumentation that were tested ($F (1, 20) = 64.47; p < .01$, second Helmert contrast). For my current study to pass the “gate-keeper test” with van Eemeren et al.’s results as a benchmark, the mean reasonableness score for my ad populum filler message has to be significantly lower than the mean reasonableness score of my reasonable filler message.

To check whether the sound argumentation is indeed judged as significantly more reasonable than the fallacious argumentation, a one-way analysis of variance was conducted with the reasonableness scores of the filler items as the dependent variable and “reasonable versus ad populum” as a within-subjects factor. This test showed that the ad populum message was indeed rated significantly less reasonable than the message
containing sound symptomatic argumentation \((F (1, 158) = 160.21; p < .01)\). Because this difference in perceived reasonableness between ad populum fallacies and reasonable argumentation was significant, I consider my experimental data to have survived the gatekeeper test. This means that based on the comparison with van Eemeren et al.’s results, there is no reason to doubt the validity of my experimental data.

6.3.2 Perceived Reasonableness of Experimental Messages

The mean reasonableness scores for the three experimental conditions tested in experiment II are represented in Table 6.8. Ad types User, Ambiguous and Nonuser represent the different levels (Yes, Amb and No) of the independent variable “Experienced”. In advertisements of type User (level Yes, corresponding to a satisfactory answer to the Desirable Consequence question) the small print read that the endorser’s symptoms were cured or alleviated after using the advertised product. In advertisements of type Ambiguous (level Amb, corresponding to an ambiguous anticipation maneuver), the small print read that the endorser was an “actual patient”. In advertisements of type Nonuser (level No, corresponding to an unsatisfactory answer), finally, the small print read that the endorser was not an actual user of the advertised product.

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>Amb</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4.03 (1.38)</td>
<td>3.59 (1.31)</td>
<td>2.44 (1.42)</td>
</tr>
<tr>
<td>Experienced</td>
<td>[Ad type User]</td>
<td>[Ad type Ambiguous]</td>
<td>[Ad type Nonuser]</td>
</tr>
</tbody>
</table>

Table 6.8. Mean reasonableness scores (including standard deviations between brackets) for the different values of Experienced [Yes, Amb and No]. Measured as the extent of agreement with the statement “I consider this person’s endorsement to be a reasonable argument for the claim that people suffering from [medical condition] should use [drug]” on a seven-point Likert type scale, where 1 = disagree very strongly, 7 = agree very strongly.133

132 Since the filler items were only represented by one message per experimental condition, the design of the filler items classifies as a single-message within-subjects design. This makes it unnecessary to calculate a quasi-F-ratio with corresponding approximated degrees of freedom as will be done for the experimental messages in the remainder of this chapter. Since the test for the filler messages does not contain other random factors besides the error-term “respondents”, a regular F-ratio can be used.

133 The mean reasonableness scores presented in this table all tend towards the lower end of the seven-point Likert scale that was used, with the highest mean score being 4.03 (4 = neither unreasonable nor reasonable). I will not draw any conclusions about these absolute scores, however, since I did not formulate any hypotheses concerning absolute reasonableness scores in the current experiment. Like in experiment I, this choice was motivated by an assumed skewing effect of the advertising context on these scores. I only
As can be seen from Table 6.8, the mean reasonableness scores for ads containing satisfactory answers are the highest ($M = 4.03; SD = 1.38$), and the mean reasonableness scores for ads containing unsatisfactory answers are the lowest ($M = 2.44; SD = 1.42$). The mean reasonableness scores for ads containing ambiguous anticipation maneuvers fall right in between these two ($M = 3.59; SD = 1.31$). The effect of the variable “Experienced” on the perceived reasonableness of the authority argumentation is significant ($F'(2, 11) = 48.82; p < .001; ES = .31)$. This means that the scores of type User, type Ambiguous and type Nonuser are significantly different from each other. It does not tell us, however, between *which* of these three groups exactly this difference is located: is it only the case that type User (level Yes) differs significantly from type Nonuser (level No), or does type Ambiguous (level Amb) also differ significantly from the other two types (which is what I am interested in)?

To investigate whether or not my hypotheses concerning ambiguous anticipation maneuvers can be confirmed, post hoc contrasts have to be calculated between the different groups. Because the contrasts that will be calculated for my two hypotheses are non-orthogonal (meaning that they are not entirely independent from one another), we have to apply a Bonferroni correction to the significance level that is required to confirm hypotheses, to reduce the chances of results being declared significant while in fact they were obtained by mere chance (the so-called Type I error). This means that in the current section, I do not use the customary alpha level of .05, but use an alpha level of .05 / 2 (since the number of contrasts is 2) instead, which comes down to an alpha level of .025.

In order to test $H_1$, “Authority arguments in direct-to-consumer medical advertisements are perceived as *less* reasonable when an ambiguous anticipation maneuver is used to suggest that an endorser has experienced the desirable effect of the advertised product, than when it is clearly stated in the advertisement that the endorser has experienced the desirable effect of the advertised product”, the reasonableness scores formulated hypotheses concerning the *differences* between the scores of the three ad types in the experiment, which will be tested in the current section. The same holds true for the effectiveness scores discussed in the next section.

134 Because I used a mixed design, in which *random* factors (the respondents and the individual advertisements within the experimental conditions) are combined with a *fixed* factor (my independent variable “Experienced”), the F-ratios that I report are quasi-F-ratios ($F'$) rather than regular F-ratios (see Clark (1973) for an explanation of the difference between the two). The degrees of freedom for quasi-F-ratios are not exact, but must be approximated. The quasi-F-ratio that I used for the factor Experienced (E) is the following, in which MS stands for “Mean Square”, which is the average amount of variance in the data explained by a particular variable; “r” stands for the factor “respondent”; and “a” stands for the factor “advertisement”:

$$F'_E = (MS_{e} + MS_{a(E)} + MS_{r}) / (MS_{a(E)} + MS_{e} + MS_{E, r})$$

See Appendix E for a specification of the statistical model that I used to obtain this quasi-F-ratio and for the corresponding degrees of freedom.

135 An alpha level of .025 indicates that a result is considered to be significant when the chance that the null hypothesis is incorrectly rejected, is less than two and a half percent. This means that a hypothesis can be confirmed when a reported $p$ level is lower than .025, indicating a chance of less than two and a half percent that the same results could have been obtained if the tested hypothesis did not hold.
for advertisements of type User \((M = 4.03; SD = 1.38)\) have to be contrasted with the reasonableness scores of advertisements of type Ambiguous \((M = 3.59; SD = 1.31)\). Advertisements of type Ambiguous were indeed found to be judged as significantly less reasonable than advertisements of type User \((F(1, 11) = 7.00; p = .023)\)\(^{136}\), which means that \(H_1\) can be confirmed.

In order to test \(H_2\), “Authority arguments in direct-to-consumer medical advertisements are perceived as more reasonable when an ambiguous anticipation maneuver is used to suggest that an endorser has experienced the desirable effect of the advertised product, than when it is clearly stated in the advertisement that the endorser has not experienced the desirable effect of the advertised product”, the reasonableness scores for advertisements of type Nonuser \((M = 2.44; SD = 1.42)\) have to be contrasted with the reasonableness scores of advertisements of type Ambiguous \((M = 3.59; SD = 1.31)\). This contrast was also found to be significant: advertisements of type Ambiguous were judged as significantly more reasonable than advertisements of type Nonuser \((F(1, 11) = 47.79; p < .001)\), which means that \(H_2\) can be confirmed as well.\(^{137}\)

### 6.3.3 Perceived Effectiveness of Experimental Messages

Both hypotheses concerning reasonableness could be confirmed, but what about the hypotheses concerning effectiveness? The mean effectiveness scores of the three ad types representing my three experimental conditions are summarized in Table 6.9.

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\(^{136}\) To obtain the significance level of this contrast, the following formula was used to calculate the quasi-\(F\)-ratio: 
\[
F_{(\text{User vs Ambiguous})} = \frac{(\text{contrast weight User} \times \text{Mean score of User} + \text{contrast weight Ambiguous} \times \text{Mean score of Ambiguous})^2}{(\text{MS}_{\text{error}} \times \{(\text{contrast weight User})^2 / \text{number of observations} + (\text{contrast weight Ambiguous})^2 / \text{number of observations}\})}
\]

The contrast weights for User and Ambiguous can be any two numbers which sum up to zero; for instance -1 and 1. The term “\(\text{MS}_{\text{error}}\)” is in this case the denominator of the quasi-\(F\)-ratio that was calculated for the main effect: \((\text{MS}_{\text{a(E)}} + \text{MS}_{\text{E x r}})\). The number of observations is the number of scores that a mean score for an experimental condition was based on; in this case: 159 participants scored 2 advertisements per experimental condition, so a mean score for a particular experimental condition is made up of 318 observations. The degrees of freedom for this quasi-\(F\)-ratio are 1 and \(\nu\); where \(\nu\) are the degrees of freedom for \(\text{MS}_{\text{error}}\) as determined in the statistical model presented in Appendix E. The other post hoc contrasts presented in the remainder of this section are calculated by means of the same formula, substituting “User” and “Ambiguous” by the applicable ad types for those contrasts.

\(^{137}\) The reported \(F\)-ratio for \(H_2\) \((F(1, 11) = 47.79)\) is much larger than that of \(H_1\) \((F(1, 11) = 7.00)\). Although it is not possible to calculate exact Effect Sizes for the non-orthogonal contrasts that were reported, Effect Sizes are monotonously related to the size of \(F\)-ratios when the same degrees of freedom are used. Therefore, the reported \(F\)-sizes for these two hypotheses indicate that the relation expressed in \(H_1\) (ambiguous anticipation maneuvers versus satisfactory answers) has a larger effect on the participants’ reasonableness judgments than the relation expressed in \(H_2\) (ambiguous anticipation maneuvers versus unsatisfactory answers).
Once again, the mean scores for ads containing satisfactory answers are the highest \((M = 3.97; SD = 1.41)\), and the mean scores for ads containing unsatisfactory answers are the lowest \((M = 2.65; SD = 1.42)\). The mean scores of ads containing ambiguous anticipation maneuvers right fall in between the two \((M = 3.56; SD = 1.32)\). The effect of the variable “Experienced” on the effectiveness of the authority argumentation is once again significant \((F(2, 35) = 60.69; p < .001; ES = .27)\). To examine between which of the three levels of the independent variable this difference is located, post hoc contrasts were calculated once more.

In order to test \(H_3\), “Authority arguments in direct-to-consumer medical advertisements are perceived as less effective when an ambiguous anticipation maneuver is used to suggest that an endorser has experienced the desirable effect of the advertised product, than when it is clearly stated in the advertisement that the endorser has experienced the desirable effect of the advertised product”, the effectiveness scores for advertisements of type User \((M = 3.97; SD = 1.41)\) have to be contrasted with the effectiveness scores of advertisements of type Ambiguous \((M = 3.56; SD = 1.32)\). Although advertisements of type Ambiguous were indeed rated as less effective than advertisements of type User, this contrast is not statistically significant \((F(1, 35) = 2.01 ; p = .087)\). Using the Bonferroni correction for the alpha level, a \(p\)-value of less than .025 would be required to confirm a hypothesis \((p < .025\) for significance; \(.025 < p < .05\) for marginal significance), so the reported .087 indicates that \(H_3\) has to be rejected.

In order to test \(H_4\), “Authority arguments in direct-to-consumer medical advertisements are perceived as more effective when an ambiguous anticipation maneuver is used to suggest that an endorser has experienced the desirable effect of the advertised product, than when it is clearly stated in the advertisement that the endorser has not experienced the desirable effect of the advertised product”, the effectiveness scores for advertisements of type Nonuser \((M = 2.65; SD = 1.42)\) have to be compared with the effectiveness scores of advertisements of type Ambiguous \((M = 3.56; SD = 1.32)\). This contrast was found to be significant: advertisements of type Ambiguous were indeed rated
as significantly more effective than advertisements of type Nonuser \( (F' (1, 35) = 15.31 ; p < .001) \), meaning that H\(_4\) can be confirmed.\(^{138}\)

### 6.4 Discussion

#### 6.4.1 Interpretation of Results

Three of the tested hypotheses were confirmed: hypotheses H\(_1\), H\(_2\), and H\(_4\). Advertisements containing an ambiguous anticipation maneuver were perceived as less reasonable than advertisements in which an endorser had clearly used the advertised drug, and advertisements containing an ambiguous anticipation maneuver were perceived as both more reasonable and more effective than advertisements in which an endorser had clearly not used the advertised drug.

To assess the correlation between perceived reasonableness and perceived effectiveness in experiment II, Pearson’s r was computed for the reasonableness and effectiveness scores of all the different advertisements. These analyses showed strong, positive correlations between the reasonableness and effectiveness scores of each and every one of the ads in the experiment, with all reported p-values being below .001.\(^{139}\) These findings regarding the strong correlation between reasonableness and effectiveness are in line with the effectiveness findings of the aforementioned *ad hominem* study by van Eemeren, Garssen, and Meuffels (2007).

That ambiguous anticipation maneuvers are perceived as less reasonable than satisfactory answers to the Desirable Consequence question, is in line with the expectation that the readers of DTC medical ads are sensitive to the difference between sound and derailed anticipation maneuvers. Unlike satisfactory answers to critical questions, ambiguous anticipation maneuvers impede the process of resolving a difference of opinion on the merits by hindering the intersubjective testing procedure in which it is determined whether the critical questions pertaining to a certain argument scheme are satisfactorily answerable. Ambiguous anticipation maneuvers make it appear like a reader should go by the stronger meaning of a claim such as “actual patient” in determining whether a critical question is satisfactorily answerable – the interpretation that the endorser has used the advertised drug – while there is reason to assume that the weaker meaning of the claim should be used instead: the interpretation that the endorser suffers from the disease

\(^{138}\) In line with the reported F-ratios concerning the *reasonableness* hypotheses, which indicated that the effect of the relation expressed in H\(_2\) was larger than the effect of the relation expressed in H\(_1\), for the *effectiveness* hypotheses the F-ratio reported for H\(_4\) \((F' (1, 35) = 15.31)\) is once again much larger than that of H\(_1\) \((F' (1, 35) = 2.01)\). In this sense, it was not surprising that H\(_3\) had to be rejected while H\(_4\) could be confirmed: the larger effect of H\(_1\) compared to H\(_2\) already indicated that the difference between ambiguous anticipation maneuvers and unsatisfactory answers can be determined more easily than the difference between ambiguous anticipation maneuvers and satisfactory answers.

\(^{139}\) See Section 6.2.3 for an overview of the 8 different ads that were used in experiment II. U stands for “User”, N for “Nonuser”, A for “Ambiguous”, RF for “Reasonable Filler” and FF for “Fallacious Filler”. The correlations were as follows (for all correlations: \(n = 159\)). For ad U1: \(r = .78; p < .001\); for ad U2: \(r = .78; p < .001\); for ad N3: \(r = .86; p < .001\); for ad N4: \(r = .76; p < .001\); for ad A5: \(r = .79; p < .001\); for ad A6: \(r = .81; p < .001\); for ad RF7: \(r = .61; p < .001\); for ad FF8: \(r = .64; p < .001\).
The Perceived Reasonableness and Effectiveness of Ambiguous Anticipation Maneuvers

developed by a drug is meant to treat, but has not actually used the advertised drug. The confirmation of H₁ suggests that readers are on to this: they appear to notice that something unreasonable is going on in ambiguous anticipation maneuvers, and consequently rate these maneuvers as significantly less reasonable than satisfactory answers.

But although the readers of these ads may be aware of the fact that something problematic is going on, they still believe these maneuvers to be significantly more reasonable (H₂) and more effective (H₄) than unsatisfactory answers to critical questions, while theoretically speaking the two are equally unreasonable. This is in line with the results of recent studies by van Eemeren, Garssen and Meuffels (2012b; 2015), in which fallacies proved to be perceived as more reasonable when they were “disguised” than when they were clear-cut. Similar to the abusive ad hominem and the ad baculum taking on a reasonable appearance in van Eemeren et al.’s research by mimicking reasonable critical reactions or well-meant advice, I believe that the ambiguous anticipation maneuvers in the current experiment were judged as more reasonable than clear-cut unsatisfactory answers to critical questions because the ambiguous anticipation maneuvers mimic satisfactory answers to critical questions.

The hypothesis that was rejected, H₃, concerned the perceived effectiveness of ambiguous anticipation maneuvers vis-à-vis satisfactory answers to critical questions: the ambiguous anticipation maneuvers were hypothesized to be perceived as less effective than satisfactory answers to critical questions. While the hypothesized relationship between ambiguous anticipation maneuvers and satisfactory answers does hold for the reasonableness judgments – indicating that participants did indeed notice the differences in the formulation of the small print of the different ad types – it is not statistically significant for the effectiveness judgments. It was not the case that the opposite was observed: ambiguous anticipation maneuvers were indeed perceived as less effective than satisfactory answers, so the raw data were in correspondence with the hypothesis, but this difference was not significant under the strict alpha level that was applied, indicating that the two were perceived as equally effective in a statistical sense.¹⁴⁰

It has to be noted here that the reason that this hypothesis was rejected rather than being considered marginally significant, although it does tend towards significance (with \(p = .087\)), was that I applied the Bonferroni criterion to correct the alpha level that was required to confirm hypotheses – a rather conservative criterion. Although the Bonferroni criterion does reduce the risk of committing Type I errors – incorrectly declaring results significant and thereby incorrectly confirming a hypothesis – it inflates the risk of committing Type II errors: incorrectly rejecting the tested hypothesis. Because the statistical power of the current experiment is limited by the fact that only two instantiations per experimental condition were used as opposed to the three instantiations per experimental condition in the previous experiment, and a lower power makes it

¹⁴⁰ Since the other three hypotheses were confirmed – ambiguous anticipation maneuvers were less reasonable than satisfactory answers, more reasonable than unsatisfactory answers and more effective than unsatisfactory answers – it is not likely that the rejection of H₃ is due to an incorrect manipulation of the independent variable. If such an incorrect manipulation would have made it hard for participants to discriminate between advertisements of the different experimental conditions – if they would be too similar to each other – then it would not be likely that all the other three hypotheses could be confirmed.
harder to confirm hypotheses, I could in principle have chosen to use a less conservative alpha level in this experiment. I chose, nonetheless, to apply the conservative Bonferroni criterion because no other research has as of yet been carried out concerning this specific type of strategic maneuvering, and I wished to be on the safe side, preferring the risk of incorrectly rejecting one of my hypotheses over the risk of incorrectly confirming one of my hypotheses.

The rejection of hypothesis H₃ gives rise to two observations. First, the occurrence in empirical reality of straightforward provisions of satisfactory answers is not necessarily due to satisfactory answers being more effective than ambiguous anticipation maneuvers. Both types of maneuvers were perceived as equally effective in a statistical sense, so their effectiveness per se should not be a reason for advertisers to choose either the one or the other in their strategic maneuvering. Of course, their effectiveness might differ in specific circumstances – for instance, for specific audiences – which might be an explanation of advertisers’ choices for the one or the other maneuver in concrete empirical instances. Further research would have to be carried out to study the influence of particular contextual circumstances on the effectiveness of ambiguous anticipation maneuvers.

Second, we may observe that from a rhetorical perspective, ambiguous anticipation maneuvers “work”. If the rhetorical purpose of using them is to get an argument accepted by making it appear as if a critical question is satisfactorily answerable while it is in fact not, then the results of the current experiment suggest that ambiguous anticipation maneuvers fulfill that purpose very well. Since participants judge these maneuvers to be just as effective as satisfactory answers and significantly more effective than unsatisfactory answers, ambiguous anticipation maneuvers do exactly what they appear to be intended to do: tricking readers into accepting a fallacious argument, even when these readers find the maneuver significantly less reasonable than a satisfactory answer that is straightforwardly provided.

The results of the current experiment suggest that purely from the perspective of effective argumentation, using an ambiguous anticipation maneuver rather than straightforwardly providing a satisfactory or unsatisfactory answer to the Desirable Consequence question is always a successful strategy for advertisers who have reason not to provide an answer to a critical question in a direct manner – for instance, because they would not be able to substantiate such a direct answer. Either the maneuver is more effective than it would have been if an unsatisfactory answer had been provided, or it is just as effective as it would have been if a satisfactory answer had been provided, but it is never perceived as less effective. This means that from a purely rhetorical point of view, it never hurts to use an ambiguous anticipation maneuver concerning this particular question – although advertisers would of course still be justified in avoiding the use of such maneuvers for ethical reasons, or for reasons of not wanting to risk a violation of the industry guidelines for DTC medical advertisements.

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141 It should of course be kept in mind that these observations are based on one single experiment with a limited amount of respondents and that H₃ could possibly be confirmed in an experiment with more statistical power – by using a larger sample and/or using more messages per experimental condition.
6.4.2 Influence of Participant Characteristics on Results

To examine whether my results are generalizable to a larger sample of respondents rather than being dependent on the specific characteristics of my sample, the current section explores whether the reasonableness and effectiveness scores for the experimental messages were significantly influenced by any participant characteristics.142

Because these quasi-F-tests were conducted for nine different participant characteristics (gender; age; educational attainment; prescription drug use; frequency with which participants reported to encounter DTC prescription drug advertisements; and experience working or studying in the fields of communication, marketing, medicine and pharmaceuticals),143 a total of nine tests had to be conducted to assess the influence of the demographical characteristics of my sample on my results. Conducting such a large number of interconnected tests increases the chance of declaring a result significant while in fact it occurred solely by chance (the “Type I error”). I once again applied the Bonferroni criterion to correct to the alpha level that is required to declare an effect significant, to reduce the chances of results incorrectly being declared significant. This means that for the following statistical analyses, I do not use the customary alpha level of .05, but instead use an alpha level of .05 / 9, which comes down to an alpha level of .006.144

No significant effect was found for the influence of the gender of participants on these results.145 Nor was any significant difference found between the results of participants who had indicated that they used prescription drugs and the results of

142 Different from experiment I, where due to the split-plot design only the filler messages were judged by all participants, the design of experiment II allows for an analysis of the actual experimental messages (Ad Types User, Ambiguous and Nonuser) for influence of participant characteristics because all experimental messages were judged by all participants. Because of the mixed design of the study – combining fixed and random factors – quasi-F-ratios had to be calculated in order to test the influence of participant characteristics.

A new statistical model was developed for this purpose, in which the variable “Participant characteristic” (C) was added as a fixed between-subjects factor. The quasi-F-ratio that was used to determine the significance of the influence of participant characteristics (C) discussed in the current section, is the following, in which MS stands for “Mean Square”, which is the average amount of variance in the data explained by a particular variable; “r” stands for the factor “respondent”; and “a” stands for the factor “advertisement”:

\[ F_{C} = \frac{(MS_{C} + MS_{a \times r \times C})}{(MS_{a \times r} + MS_{r \times C})} \]

See Appendix F for a specification of the statistical model that I used to obtain this quasi-F-ratio for the participant characteristics and for the corresponding degrees of freedom.

143 In the analyses that were carried out to determine these quasi-F-ratios, the data of participants who had indicated that they did not wish to answer a particular demographical question were excluded from analysis for the test concerning that particular participant characteristic. These exclusions resulted in a different number of participants for each of these tests: n = 159 for age, n = 159 for frequency of encountering DTC medical ads, n = 157 for prescription drug use, n = 156 for gender, n = 156 for educational attainment, and n = 154 for experience working of studying in certain fields.

144 Because I wished to be able to report the influence of the demographical characteristics of my sample on my reasonableness results separately from the influence on my effectiveness results, I did not take into account the fact that the influence on perceived reasonableness and the influence on perceived effectiveness were tested independently for each characteristic in the calculation of the applicable Bonferroni correction.

145 For gender: reasonableness: \( F^*(1, 154) = 1.32 ; p = .252 \); effectiveness: \( F^*(1, 156) = 1.99 ; p = .161 \).
participants who had indicated that they did not use prescription drugs. The frequency with which participants indicated to encounter DTC medical ads did not yield any significant differences in the results either.

The influence of participants’ educational attainment, however, was found to be significant for both the reasonableness scores ($F(4, 163) = 5.59; p < .001; ES = .11$) and the effectiveness scores ($F(4, 163) = 3.78; p = .006; ES = .12$) of the experimental messages. As can be seen from the mean scores presented in Table 6.10, higher educated participants judged the advertisements in the experiment to be significantly less reasonable and effective than lower educated participants (with the exception of some deviations in this trend for participants holding an Associate Degree).

Table 6.10. Mean reasonableness (“reas”) and effectiveness (“eff”) scores (standard deviations between brackets) for all experimental conditions, by the factor Educational attainment. Measured on a seven-point Likert-type scale with 1 = disagree very strongly, 7 = agree very strongly.

<table>
<thead>
<tr>
<th>Educational Attainment ↓</th>
<th>Experimental Condition →</th>
<th>User (reas)</th>
<th>User (eff)</th>
<th>Ambiguous (reas)</th>
<th>Ambiguous (eff)</th>
<th>Nonuser (reas)</th>
<th>Nonuser (eff)</th>
</tr>
</thead>
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<tr>
<td>High school or equivalent</td>
<td>(n = 41)</td>
<td>4.40</td>
<td>4.33</td>
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<td>3.94</td>
<td>2.63</td>
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<td></td>
<td>(1.22)</td>
<td>(1.38)</td>
<td>(1.28)</td>
<td>(1.42)</td>
<td>(1.60)</td>
<td>(1.63)</td>
</tr>
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<td>4.15</td>
<td>3.65</td>
<td>3.30</td>
<td>2.35</td>
<td>2.55</td>
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<td></td>
<td></td>
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<td>(1.46)</td>
<td>(1.33)</td>
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<td>Bachelor’s degree</td>
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<td>(.77)</td>
<td>(1.14)</td>
<td>(1.14)</td>
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<tr>
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<td>2.68</td>
<td>2.36</td>
<td>2.64</td>
<td>1.86</td>
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<td></td>
<td></td>
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<td>(1.47)</td>
<td>(1.14)</td>
<td>(1.31)</td>
<td>(1.87)</td>
<td>(.97)</td>
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<tr>
<td>Total</td>
<td>(N = 156)</td>
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<td>3.97</td>
<td>3.59</td>
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<td>(1.32)</td>
<td>(1.33)</td>
<td>(1.42)</td>
<td>(1.42)</td>
</tr>
</tbody>
</table>

146 For prescription drug use: reasonableness: $F(1,137) = .43; p = .514$; effectiveness: $F(43, 142) = .07; p = 1$.

147 For frequency of encountering DTC medical ads: reasonableness: $F(4, 161) = .93; p = .423$; effectiveness: $F(4, 163) = .45; p = .771$.

148 The fact that the mean reasonableness and effectiveness scores for the different experimental conditions presented in the column “Total” in this table are slightly different from the mean scores discussed in the Results section, is due to the fact that the table for educational attainment is based on a sample of $N = 156$ rather than the entire sample of $N = 159$, because three participants indicated that they preferred not to disclose their educational attainment.

149 None of the participants in experiment II selected the option “no high school completed”, which is why that particular level of educational attainment is not represented in this table.
Note that although the absolute scores of participants with different educational levels differ significantly from each other, the same *ordinal patterns* – the same ranking order from low to high – can be found in the answers of participants with different educational levels. Regardless of their education, participants judge advertisements of type Nonuser as the least reasonable and effective of the experimental messages, advertisements of type Ambiguous as intermediate, and advertisements of type User as the most reasonable and effective. If the ordinal answer patterns would not correspond to each other – if, for instance, lower educated people would systematically rate advertisements of type User as the *least* reasonable – then the over-representation of higher educated participants in my sample would make it harder to generalize my results to the population at large. Because these ordinal patterns for the different educational levels are in agreement with one another, however, the ecological validity of my study is not drastically altered by the fact that the majority of my sample consists of higher educated people.

That higher educated people are more critical in their judgment of arguments than lower educated people is in line with the findings reported by van Eemeren, Garssen and Meuffels (2009) in a study in which the judgments of secondary school students were compared with the judgments of bank managers: the bank managers judged all arguments as less reasonable than the students, although the answer patterns were the same for both groups (both groups judged fallacies as less reasonable than non-fallacies). Van Eemeren, Garssen and Meuffels remark that “a higher education and/or a higher age are apparently coupled with a more critical attitude to discussion” (p. 82). Pilgram (2015, p. 96) reports a similar result: in an experiment concerning the perceived reasonableness of authority arguments in medical consultation, higher educated participants judged fallacious non-authority arguments as significantly less reasonable than lower educated participants.

Because in these previous studies higher educated participants have been shown to be *more* critical in their judgments than lower educated participants, a replication experiment based on a sample in which more lower educated participants are represented would most likely obtain the same results on ambiguous anticipation maneuvers as the current experiment did – or even stronger ones. If my current, highly educated, sample could already be misled by the ambiguous anticipation maneuvers in the experiment – judging them as significantly more reasonable and effective than advertisements in which an unsatisfactory answer to a critical question is provided – then we may assume that a sample containing more lower educated participants, who will most likely be *less* critical, will be misled just as badly.

In van Eemeren et al.’s experiment, according to the authors, the difference between the students’ and the bank managers’ judgments could be due to age, education level or a combination of both, but the results of my own experiment show that although education level yields significant differences in results, age does not.151

Participants were also asked to indicate whether they had any experience working or studying in the fields of communication, marketing, medicine/healthcare

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150 As was explained in Section 6.2.6, my sample is highly educated compared to the entire US population.

151 For age: reasonableness: $F(7, 166) = .53; p = .787$; effectiveness: $F(6, 165) = .83; p = .528$. The factor "Age" in these analyses has six levels, representing six age categories: 18 through 27 years of age ($n = 80$), 28-37 years ($n = 44$), 38-47 years ($n = 16$), 48-57 years ($n = 14$), 58-67 years ($n = 4$) and 68-77 years ($n = 1$).
or pharmaceuticals – experience that might enable readers to judge DTC medical advertisements in a more critical manner than readers without such experience.\textsuperscript{152} No significant differences were found between the scores of participants belonging to any one of those groups compared to the rest of the sample.\textsuperscript{153}

Besides the abovementioned mixed model quasi-F-tests that were conducted for the scores of all experimental messages, additional one-way ANOVA tests were conducted to investigate whether participants suffering from the particular affliction that the fictitious drug in a particular advertisement claimed to remedy, judged that particular advertisement in a significantly different way than other participants.\textsuperscript{154} I tested, for instance, whether participants who had indicated to suffer (or to have previously suffered) from seasonal allergies judged the reasonableness and effectiveness of the particular advertisement that concerned their particular affliction (in the case of seasonal allergies: advertisement User 1) in a different manner than people who had indicated not to suffer or have suffered from that affliction.\textsuperscript{155}

Because eight interconnected tests were conducted, using the Bonferroni criterion once more, the alpha level was corrected to .05 / 8 = .006.\textsuperscript{156} None of these ANOVA-tests yielded significant differences,\textsuperscript{157} with the lowest reported \( p \)-level being .102 (\( F(1, 155) \)).

\begin{itemize}
\item \textsuperscript{152} Out of the entire sample of \( N = 159 \) participants, \( n = 5 \) participants (3.1 \%) indicated that they preferred not to answer the question and \( n = 102 \) participants (64.2 \%) indicated that they had experience in none of these four fields. Of the remaining participants, \( n = 15 \) indicated to have experience in communication (9.1 \% of the entire sample minus the participants who preferred not to answer the question), \( n = 14 \) in marketing (9.7 \%), \( n = 15 \) in medicine / healthcare (22.1 \%), and \( n = 12 \) in pharmaceuticals (7.8 \%).
\item \textsuperscript{153} For communication: reasonableness: \( F'(1, 154) = .49; p = .487 \); effectiveness: \( F'(1, 152) = .85; p = .358 \). For marketing: reasonableness: \( F'(1, 154) = 1.14; p = .286 \); effectiveness: \( F'(1, 142) = .45; p = .503 \). For medicine/healthcare: reasonableness: \( F'(1, 71) = 5.88; p = .018 \); effectiveness: \( F'(1, 155) = 7.06; p = .009 \). For pharmaceuticals: reasonableness: \( F'(1, 154) = .77; p = .380 \); effectiveness: \( F'(1, 152) = .38; p = .539 \).
\item \textsuperscript{154} On the last page of the questionnaire participants were asked to indicate whether they suffered (or had previously suffered) from asthma, heartburn, high blood pressure, high cholesterol, migraines, rheumatoid arthritis, seasonal allergies, and trouble sleeping (the eight conditions represented in the ads in the experiment). Participants could select one or more of those eight conditions, could indicate that they suffered from none of those conditions, or could indicate that they preferred not to answer the question. \( n = 2 \) participants indicated that they preferred not to answer and \( n = 35 \) participants selected the option "none of the above". Of the remaining participants, \( n = 33 \) participants indicated to suffer or have previously suffered from asthma (21.0 \% of the entire sample excluding participants who preferred not to answer), \( n = 32 \) from heartburn (20.4 \%), \( n = 18 \) from high blood pressure (11.5 \%), \( n = 17 \) from high cholesterol (\( n = 10.8 \%) \), \( n = 44 \) from migraines (28.0 \%), \( n = 6 \) from rheumatoid arthritis (3.8 \%), \( n = 76 \) from seasonal allergies (48.4 \%), and \( n = 57 \) from trouble sleeping (36.3 \%).
\item \textsuperscript{155} The data of participants who indicated that they preferred not to answer the question concerning medical conditions were excluded from these analyses.
\item \textsuperscript{156} Once again, I wish to report these influences separately for reasonableness and effectiveness, so I do not include the fact that both the reasonableness and the effectiveness scores were compared for each of these eight tests in applying the Bonferroni correction.
\item \textsuperscript{157} For seasonal allergies (U1): reasonableness: \( F(1, 155) = .07; p = .789 \); effectiveness: \( F(1, 155) = .05; p = 827 \). For trouble sleeping (U2): reasonableness: \( F(1, 155) = .04; p = .847 \); effectiveness: \( F(1, 155) = .04; p = .841 \). For migraine (N3): reasonableness: \( F(1, 155) = .14; p = .708 \); effectiveness: \( F(1, 155) = .06; p = .816 \).
\end{itemize}
= 2.71; \( p = .102 \) for the influence of suffering from or having suffered from rheumatoid arthritis on the reasonableness scores of an ad that claimed to alleviate the symptoms of rheumatoid arthritis), which is well above the alpha level of .006.

The various tests reported above were conducted to check the influence of several participant characteristics on the results of the current experiment. The findings of these tests indicate that there is no reason to assume that the results obtained in the current experiment are dependent on the specific demographical characteristics of my sample, which makes it more likely that my results can be generalized to a larger population.

### 6.5 Conclusion

The research question that this chapter set out to answer, was the following (research question 5):

To what extent do readers of direct-to-consumer medical advertisements differentiate between sound and derailed strategic maneuvers that anticipate critical questions concerning the use of experience-based authority argumentation?

To answer this question, an experiment was conducted in which participants were presented with maneuvers providing satisfactory answers to the Desirable Consequence question concerning the endorser actually having experienced the advertised product’s desirable effect (which were sound), maneuvers providing unsatisfactory answers to this critical question (which were fallacious) and maneuvers in which the critical question was anticipated by exploiting ambiguity concerning an answer to that question (which were also fallacious). The results of the experiment showed that ambiguous anticipation maneuvers were judged as significantly less reasonable than satisfactory answers and significantly more reasonable than unsatisfactory answers. Moreover, ambiguous anticipation maneuvers were judged as significantly more effective than unsatisfactory answers. Using a strict significance level, no statistically significant difference was detected between the effectiveness judgments of ambiguous anticipation maneuvers and satisfactory answers – although the raw data did show such a relationship: it was not the case that the opposite was found.

From these results, we may conclude that reader’s evaluations of experience-based authority arguments in DTC medical advertisements are significantly influenced

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For heartburn (N4): reasonableness: \( F (1, 155) = .01; p = .940 \); effectiveness: \( F (1, 155) = 2.62; p = .108 \).

For high cholesterol (A5): reasonableness: \( F (1, 155) = .48; p = .491 \); effectiveness: \( F (1, 155) = .04; p = .847 \).

For asthma (A6): reasonableness: \( F (1, 155) < .01; p = .958 \); effectiveness: \( F (1, 155) = .34; p = .558 \).

For rheumatoid arthritis (RF7): reasonableness: \( F (1, 155) = 2.71; p = .102 \); effectiveness: \( F (1, 155) = 1.91; p = .169 \).

For high blood pressure: reasonableness (FF8): \( F (1, 155) = .10; p = .753 \); effectiveness: \( F (1, 155) = .19; p = .667 \).
by ambiguous anticipation maneuvers. Although, theoretically speaking, ambiguous anticipation maneuvers are just as unreasonable as unsatisfactory answers to critical questions, these ambiguous maneuvers are judged as significantly more reasonable than unsatisfactory answers. Moreover, the finding that they are judged as significantly more effective than unsatisfactory answers and just as effective as satisfactory answers, suggests that their potential rhetorical effect is considerable: they are capable of tricking readers into accepting a fallacious argument. Readers do find the maneuver significantly less reasonable than a satisfactory answer that is straightforwardly provided, which suggests that they do appear to notice that something is amiss with it, but these readers’ realization that something problematic is going on with these maneuvers is not necessarily reflected in the perceived effectiveness of ambiguous anticipation maneuvers vis-à-vis satisfactory answers.

In answer to research question 5 – concerning readers of direct-to-consumer medical advertisements differentiating between sound and derailed anticipation maneuvers – we can conclude that readers indeed recognize derailed anticipation maneuvers, but only to a certain extent. Readers do find ambiguous anticipation maneuvers significantly less reasonable than satisfactory answers to critical questions, which suggests that they do differentiate between reasonable and unreasonable anticipation maneuvers. But at the same time readers find ambiguous anticipation maneuvers significantly more reasonable than unsatisfactory answers to critical questions, while theoretically speaking the two are equally unreasonable. Finally, the finding that these maneuvers can trick readers into accepting a fallacious argument, by being perceived to be just as effective as satisfactory answers to critical questions, gives cause to classify the use of these ambiguous anticipation maneuvers as not only fallacious, but also misleading for consumers.

It is important to note that the findings of the current experiment only hold for ambiguous anticipation maneuvers concerning the critical question whether there is no notable reason to assume that the endorser did not actually experience the desirable effects of the advertised product. These findings are not directly generalizable to other types of fallacious anticipation maneuvers concerning other critical questions. The effects of other types of anticipation maneuvers would have to be investigated in follow-up research. First of all, though, before we can draw any far-reaching conclusions based on the findings reported in the two experiments that I carried out, we should explore whether these results can be replicated by means of other experiments in which the statistical power is raised by increasing the sample size and/or using more messages per experimental condition. If the same results can be found in such replication studies, then those results can be generalized to a larger population with more certainty.
7.1 Results

This dissertation set out to realize a dual aim:

1) To provide an account of an advertiser's strategic maneuvering in direct-to-consumer medical advertisements in anticipating critical questions concerning experience-based authority argumentation, and 2) to determine to what extent readers of these advertisements differentiate between sound and derailed instances of such strategic maneuvers.

The study was divided into an analytical and an empirical part. Below, I will present an overview of the most important results that were obtained in both the analytical and the empirical part of the study, before moving to sketching some implications of these findings (Section 7.2) and providing some suggestions for further research (Section 7.3).

Part I: An Analytical Study concerning Experience-based Authority Argumentation in Direct-to-Consumer Medical Advertisements

To realize my first aim, relating to an advertiser’s strategic maneuvering in direct-to-consumer medical advertisements in anticipating critical questions concerning experience-based authority argumentation, three research questions were investigated: “What are the extrinsic constraints imposed by the argumentative activity type of direct-to-consumer medical advertisements?” (question 1), “What are the relevant critical questions for experience-based authority argumentation in direct-to-consumer medical advertisements?” (question 2); and “What kinds of strategic maneuvers can be used by advertisers to anticipate critical questions?” (question 3).

The extrinsic constraints imposed by the argumentative activity type (research question 1) are the following. The advertiser’s most important aim is to get the reader of the advertisement to use a certain medical product. This aim is pursued by implementing the genre of promotion, which is directed towards fulfilling the overall goal of making profit, pertaining to the communicative domain of commercial communication. In line with the goals set forth in legislation and advertising codes, however, the point of these ads is also to enable consumers to carefully consider whether they should use a certain medical product. That goal can be realized by implementing the genre of consultation, contributing to the goal of maintaining or improving health, associated with the communicative domain of medical communication. This means that the communicative activity type is a “hybrid” that can be positioned in an overlap between two communicative domains. The communicative activity type's hybridity is reflected in its institutional point: to achieve that patients who can reasonably conclude that a certain medical product is
appropriate for them, after careful consideration of the product’s risks and benefits, will use that medical product.

The *explicit* institutional conventions of the communicative activity type include the legal rules concerning advertisements in general and DTC medical advertisements in particular, which require, for instance, that an advertiser present a “fair balance” between the risks and benefits of a prescription drug. The explicit institutional conventions also include the guiding principles for DTC prescription drug ads that are laid down by pharmaceutical companies, which state, for instance, that advertisers should motivate consumers to engage in a dialogue with their physicians and should therefore entice consumers to ask their doctor about the advertised drug. The *implicit* institutional circumstances of the communicative activity type involve practical constraints connected to the advertising format, such as the fact that the discussion is implicit – we only see the advertiser’s text, not the consumer’s response – and the fact that an advertisement has a limited length.

Starting from these conventions, the empirical counterparts of the four discussion stages in the ideal model of critical discussion – the *initial situation*, the *material and procedural starting points*, the *argumentative means and criticisms*, and the *outcome* of an argumentative exchange – were characterized for the activity type of DTC medical ads. The initial situation of the discussion consists of an anticipated non-mixed difference of opinion about the prescriptive standpoint that suitable patients should use a particular medical product. The *material starting points* for prescription drug ads mandatorily include information about the side-effects and contraindications of a drug. The *procedural* starting points include an agreement between the discussants to adhere to the existing laws and guiding principles, as well as practical requirements to the advertisement such as limitations to its length. It is also a procedural starting point that the advertiser fulfills the role of the protagonist, while the consumer, because of the implicit discussion format, *implicitly* fulfills the role of the antagonist. The *argumentative means and criticisms* of the discussion consist of argumentation in support of using a certain drug, presented in a monological advertisement. In prescription drug ads, the advertiser should also provide relevant counter-arguments on behalf of the absent antagonist, because of the legal requirement of presenting a fair balance of the pros and cons of a drug. Apart from the mandatory comparison of the pros and cons of a prescription drug, in order to be optimally reasonable and effective the advertiser also has to anticipate the critical questions his or her intended audience might have concerning the particular kind of argument schemes (s)he employs, and take these into account in his or her argumentation. Finally, the *outcome* of the discussion is an implicit resolution of the difference of opinion by means of the consumer performing the intended perlocutionary act of using the advertised drug, in case the difference of opinion is resolved in favor of the pharmaceutical company – or the lack of such a perlocutionary act, in case the consumer still has his or her doubts. The pharmaceutical company can reconstruct the outcome of the implicit discussion on the basis of (a lack of) increased revenue for the medical product.

In line with the argumentative characterization of the communicative activity type of DTC medical advertisements, the *pre-conditions* for strategic maneuvering in this activity type were determined. This was done in terms of the three *aspects* that are always combined in strategic maneuvering: choice from the topical potential, adaptation
to audience demand and use of presentational devices. One of the pre-conditions for choice from the topical potential, for instance, entails that advertisers prototypically advance one or more pragmatic arguments, because the standpoint that is defended is always prescriptive – suitable patients should use drug X – and because potential reasons for using an advertised drug usually relate to desirable consequences of using that drug: providing a remedy for a certain medical problem. Concerning adaptation to audience demand, an advertiser prototypically anticipates the criticisms that the intended audience might have and takes those into account in his or her strategic maneuvering, to increase the chances of his or her arguments being accepted. Regarding presentational devices, DTC prescription drug ads prototypically include the explicitly phrased standpoint that a patient should ask his or her doctor about the advertised drug. Such a phrasing contributes to an advertiser’s medical as well as commercial aims at once: it is an incentive to speak to one’s doctor, but it is also an incentive to seek usage of the advertised drug.

In order to provide the relevant critical questions for evaluating experience-based authority argumentation in DTC medical ads (research question 2) it was first necessary to list the relevant critical questions concerning authority argumentation in general. Based on the pragma-dialectical account of authority argumentation as a subtype of the argument scheme of symptomatic argumentation, critical questions could be stipulated for authority argumentation in general. I differentiated between main and subordinate critical questions concerning authority argumentation. The main critical questions pertain to the two premises of the argument scheme of authority argumentation (X is acceptable because X is an opinion in field F held by authority A, and being an opinion in field F held by authority A indicates acceptability): the question whether X is really an opinion in field F held by authority A, and the question whether X being an opinion in field F held by authority A indeed indicates acceptability. While the main critical questions can be used by the discussants to determine whether an argument is sound, the subordinate critical questions can be used by the discussants in order to determine whether the main critical questions can be answered satisfactorily. One of the critical questions that is subordinate to the critical questions concerning X really being an opinion in field F held by authority A is, for instance, whether there is no notable reason to assume that A has been quoted incorrectly or out of context.

I consequently applied two kinds of specifications to the main and subordinate critical questions for authority argumentation: one for the particular variety of authority argumentation I study and one for the particular communicative activity type my research focuses on. This means that I specified the critical questions in such a way that they apply to experience-based authority argumentation and to the particular context of DTC medical advertisements. For experience-based authority argumentation in direct-to-consumer medical ads, the main critical questions (CQ) and subordinate critical questions (scq) were specified as follows (when a question is indented, this means that it is subordinate to a question above it):
CQ 1: Is the statement that using drug X has desirable consequence C really an opinion in the field "medical products that E has positive experiences with" held by endorser E?

scq i: Is there no notable reason to assume that E has been quoted incorrectly or out of context?
scq ii: Is there no notable reason to assume that E did not actually experience desirable consequence C of drug X?
scq iii: Is there no notable reason to assume that E only claims that drug X has desirable consequence C because (s)he profits from claiming this?

CQ 2: Does being an opinion in the field "medical products that E has positive experiences with" held by endorser E indeed indicate acceptability?

scq iv: Is there no notable reason to assume that readers cannot reasonably be expected to deem E appropriate as an authority?
scq v: Is there no notable reason to assume that E’s experience with drug X is not representative of the experiences that targeted users generally will have with X?

When one or more of the subordinate questions cannot be answered satisfactorily, this means that a particular main critical question cannot be answered satisfactorily. But when all subordinate questions have been answered satisfactorily, this can only be seen as an *indication* that the main critical questions can be answered satisfactorily as well, not as a certainty. It might be necessary to add subordinate questions to the list in specific circumstances, and the chance that one of those additional subordinate questions cannot be answered satisfactorily makes it impossible to regard the current set of questions as sufficient. Based on the answers to these subordinate critical questions, an antagonist can decide whether (s)he believes there to be enough support for satisfactory answers to the main critical questions, or whether (s)he requires additional support.

Prototypical satisfactory answers to these critical questions can be embedded in a “prototypical argumentative pattern” concerning experience-based authority argumentation in DTC medical advertisements. When a protagonist reacts to anticipated critical questions regarding his or her use of an argument scheme, a pattern of argumentative moves will come into being that is characterized by a specific constellation of argument schemes and argumentation structures. In argumentative practice, the use of an experience-based authority argument is prototypically embedded in such an argumentative pattern, a pattern that will differ according to the institutional needs of the communicative activity type in which it occurs. Experience-based authority argumentation can be embedded in a prototypical argumentative pattern of DTC medical advertisements in the following way:
1 Suitable patients should use drug X

1.1 Using X has desirable consequence C that X will cure or alleviate the patient’s medical problem

1.1.1a That using X has desirable consequence C is an opinion in field F, “medical products that E has positive experiences with”, held by endorser E

1.1.1a.1a That using X has desirable consequence C is an accurate representation of E’s current opinion [= there is no notable reason to assume that E is quoted incorrectly or out of context]

1.1.1a.1b E’s opinion is based on E’s personal experience with desirable consequence C of drug X [= there is no notable reason to assume that E has not experienced desirable consequence C of drug X]

1.1.1a.1b.1 There is no notable reason to assume that E only claims that drug X has desirable consequence C because (s)he profits from claiming this

1.1.1a' Being an opinion in field F held by endorser E indicates acceptability

1.1.1a'.1 E is an appropriate authority [= there is no notable reason to assume that readers cannot reasonably be expected to deem E appropriate as an authority]

[1.1.1b – 1.1.1n: One or more coordinative argument(s) other than experience-based authority argumentation need to be available to be provided upon request]

The pattern is a result of the institutional pre-conditions of the communicative activity type, as can be seen from the prescriptive standpoint that suitable patients should use drug X, and the pragmatic argument that using drug X has desirable consequence C to support this standpoint. Arguments 1.1.1a to 1.1.1a'.1 consist of prototypical satisfactory answers to anticipated critical questions concerning experienced-based authority argumentation. A satisfactory answer to CQ1 constitutes the minor premise of the authority argument (1.1.1a): the argument that the statement “using X has desirable consequence C” is an opinion in the field “medical products that E has positive experiences with” held by endorser E. In a similar vein, a satisfactory answer to CQ 2 constitutes the major premise of the authority argument (1.1.1a'): the argument that being an opinion in field F held by endorser E indicates acceptability.

Satisfactory answers to subordinate critical questions i, ii and iii, in turn, support the minor premise of the authority argument, while a satisfactory answer to critical question iv supports the major premise of the authority argument. Subordinate critical question v, regarding the representativeness of the endorser, was not included in the prototypical argumentative pattern because the fact that “endorsers by experience” are usually not representative is a structural weak spot in experience-based authority argumentation that is typically not addressed by advertisers.
In order to explain what kinds of strategic maneuvers can be used by advertisers to anticipate critical questions (research question 3), I distinguished three illustrative kinds of “anticipation maneuvers”: providing an answer to a critical question, exploiting ambiguity concerning an answer to a critical question, and facilitating a satisfactory answer to a critical question. When providing an answer to a critical question, an advertiser addresses a critical question in a direct, straightforward manner.

In exploiting ambiguity concerning an answer to a critical question, an advertiser invites readers to use the stronger meaning of an advertising claim in determining whether a critical question can be answered satisfactorily, while there is reason to assume that a weaker meaning of such a claim should actually be taken as a starting point for this judgment. For instance, instead of stating that an endorser has experienced the desirable results of the advertised product, an advertiser might claim that (s)he is an “actual patient”, which literally only means that the person suffers from the disease that the drug is meant to treat, not that (s)he has used the drug or that it has actually worked for him or her. Readers would be justified in going by the stronger meaning that the endorser has had positive experiences with the advertised drug, and therefore take the pertaining subordinate critical question to be satisfactorily answered, because of the fact that this person appears in the advertisement. However, there is reason to assume that the critical question should actually be answered going by the weaker meaning that the patient does suffer from the condition that the advertised drug is meant to remedy but has in fact not used the drug, which would result in an unsatisfactory answer to the critical question. For if it would be the case that the drug actually alleviated the endorser’s symptoms, then why would the advertiser not just have said so, rather than choosing a vague formulation like “actual patient”?

The advertiser can also merely facilitate an answer to a critical question by “preparing the ground” or “setting the stage” for a satisfactory answer to a critical question. In facilitating a satisfactory answer to a critical question, an advertiser creates opportune circumstances for a reader to think of a satisfactory answer to a critical question. For instance, to facilitate a satisfactory answer to the critical question concerning the representativeness of an endorser, the advertiser can attempt to make an endorser look like someone who is very similar to the reader by emphasizing the qualities the endorser has in common with the reader.

To illustrate these three kinds of anticipation maneuvers, an advertisement for the drug Prilosec OTC was analyzed as a case study. In the analysis of this advertisement, I demonstrated how to reconstruct experience-based authority argumentation in a direct-to-consumer medical advertisement, and how to identify the anticipation maneuvers that the advertisement contains.

By specifying the soundness conditions for experience-based authority argumentation in DTC medical ads on the basis of the argumentative characterization of the activity type, and by discussing how an advertiser can anticipate these soundness conditions by means of three different kinds of strategic maneuvers, I realized the analytical aim of the dissertation: to provide an account of an advertiser’s strategic maneuvering in direct-to-consumer medical advertisements in anticipating critical questions concerning experience-based authority argumentation.
Part II: Two Empirical Studies concerning the Perceived Reasonableness and Effectiveness of Experience-based Authority Argumentation in Direct-to-Consumer Medical Advertisements

The empirical part of the dissertation revolved around my second aim: to determine to what extent the readers of DTC medical advertisements differentiate between sound and derailed instances of strategic maneuvers that anticipate critical questions concerning the use of experience-based authority argumentation. To realize this aim, two research questions needed to be examined: “Are the analytically established soundness conditions concerning experience-based authority argumentation in direct-to-consumer medical advertisements in line with evaluation criteria that are applied by readers of these advertisements?” (question 4) and “To what extent do readers of direct-to-consumer medical advertisements differentiate between sound and derailed strategic maneuvers that anticipate critical questions concerning the use of experience-based authority argumentation?” (question 5).

To ascertain whether the soundness conditions established in the analytical part were in line with evaluation criteria that are applied by readers of DTC medical advertisements (question 4), two of these soundness conditions were put to the test in the experiment The Perceived Reasonableness and Effectiveness of Sound versus Fallacious Experience-based Authority Arguments (henceforth referred to as “experiment I”). Experiment I concerned satisfactory and unsatisfactory answers to subordinate critical question ii (whether there is no notable reason to assume that the endorser has not actually experienced the product’s desirable effect), which I dubbed the Desirable Consequence question for ease of reference, and subordinate critical question iii (whether there is no notable reason to assume that the endorser only makes a certain claim because (s)he profits from this), which I dubbed the Only for Profit question. In artificial advertisements promoting fictional drugs, information was provided in the small print about whether or not the advertised drug had worked for the endorser, and about whether or not the endorser was compensated for appearing in the ad. That an endorser is not compensated for his or her appearance in an advertisement is not the only possible satisfactory answer to the Only for Profit question, but it is an answer that is likely to be interpreted by participants in a clear-cut manner.

Using a multiple message design with repeated measurements, 122 US participants were asked to judge the reasonableness and effectiveness of experience-based authority argumentation in artificial advertisements in an online questionnaire. The artificial advertisements contained different combinations of satisfactory and unsatisfactory answers to the Desirable Effects question and the Only for Profit question. In the small print at the bottom of the advertisements it was mentioned, for instance, that an endorser had achieved a significant decrease of symptoms after using the advertised drug and that the endorser was not compensated for appearing in the advertisement.

The results of experiment I showed that for the Desirable Consequence question, we may indeed conclude, as an answer to research question 4, that readers of medical advertisements apply an evaluation criterion that is in line with the criterion reflected in the critical question that was established on analytical grounds in Part I of the dissertation. Advertisements in which the endorser had experienced the product’s effectiveness were perceived to be significantly more reasonable and effective than advertisements in which the endorser had not experienced this effectiveness. For the other critical question that
was tested, the Only for Profit question, we cannot incontrovertibly conclude whether this question plays a role for the readers of DTC medical advertisements. Advertisements in which the endorser was compensated were rated as less reasonable than advertisements in which the endorser was not compensated, but these results were only marginally significant.

The difference in Effect Sizes – the amount of variance in participants’ answers that can be explained by a particular variable – that was found between the two critical questions indicated that the Desirable Consequence question had a much larger effect on participants’ reasonableness and effectiveness judgments than the Only for Profit question. Because of this difference in Effect Sizes, combined with the marginal significance associated with the Only for Profit question, a choice was made to restrict the follow-up experiment to the Desirable Consequence question. Since that critical question clearly played a role for the readers of DTC medical advertisements, the next step was to investigate how these readers’ judgments would be influenced by different kinds of strategic maneuvers aimed at anticipating this question.

In the follow-up experiment The Perceived Reasonableness and Effectiveness of Ambiguous Anticipation Maneuvers concerning Experience-based Authority Arguments (henceforth referred to as “experiment II”), anticipation maneuvers in which a satisfactory or unsatisfactory answer to the Desirable Consequence question was provided, were contrasted with anticipation maneuvers in which ambiguity was exploited concerning an answer to this critical question, in order to investigate whether readers of direct-to-consumer medical advertisements differentiate between sound and derailed strategic maneuvers that anticipate critical questions concerning the use of experience-based authority argumentation (research question 5). The same method was used as in the first experiment: a multiple message design with repeated measurement, with 159 US participants judging eight artificial advertisements in an online questionnaire.

The results of experiment II showed that ambiguous anticipation maneuvers were judged as significantly less reasonable than satisfactory answers and significantly more reasonable than unsatisfactory answers to the Desirable Consequence question. Moreover, ambiguous anticipation maneuvers were judged as significantly more effective than unsatisfactory answers. Using a strict significance level, no statistically significant difference was detected between the effectiveness judgments of ambiguous anticipation maneuvers and satisfactory answers – although the raw data did show such a relationship: it was not the case that the opposite was found.

Although, theoretically speaking, ambiguous anticipation maneuvers are just as unreasonable as unsatisfactory answers to critical questions, they were judged as significantly more reasonable than unsatisfactory answers. Moreover, the finding that they were judged as significantly more effective than unsatisfactory answers and statistically just as effective as satisfactory answers, suggests that their potential rhetorical effect is considerable: they are capable of tricking readers into accepting a fallacious argument.

In answer to research question 5, “To what extent do readers of direct-to-consumer medical advertisements differentiate between sound and derailed strategic maneuvers that anticipate critical questions concerning the use of experience-based authority argumentation?”, we can conclude that readers recognize derailed anticipation maneuvers to a limited extent. Readers do find ambiguous anticipation maneuvers significantly less
reasonable than *satisfactory* answers to critical questions, which suggests that they are able to differentiate between reasonable and unreasonable anticipation maneuvers. On the other hand, readers also find ambiguous anticipation maneuvers significantly more reasonable than *unsatisfactory* answers to critical questions, while theoretically speaking the two are equally unreasonable.

These findings are an indication that from a rhetorical perspective, ambiguous anticipation maneuvers “work” for advertisers: using an ambiguous anticipation maneuver rather than straightforwardly providing a satisfactory or unsatisfactory answer to the Desirable Consequence question appears to be a successful strategy for advertisers who have reason not to provide an answer to a critical question in a direct manner – for instance, because they would not be able to substantiate such a direct answer. Either the maneuver is more effective than it would have been if an unsatisfactory answer had been provided, or it is just as effective as it would have been if a satisfactory answer had been provided, but it is never perceived as less effective.

Combining the two parts of the study, the aim of this dissertation has been realized: an analytical account of an advertiser’s strategic maneuvering in DTC medical advertisements in anticipating critical questions concerning experience-based authority argumentation has been provided, as well as an empirical account of the extent to which the readers of these advertisements differentiate between sound and derailed instances of such strategic maneuvers.

### 7.2 Implications

The results of this dissertation can provide insights to argumentation researchers as well as to pharmaceutical companies and policy makers. The ways in which the current research project contributes to these different fields will be discussed below, starting off with the implications for argumentation theory.

The pragma-dialectical research program consists of five components: the philosophical, the theoretical, the analytical, the empirical and the practical component (van Eemeren, 1987; van Eemeren & Grootendorst, 2004). The results of this dissertation provide contributions to all components except for the philosophical, which revolves around the underlying principles of an ideal model for critical discussion, founded on a critical-rationalist perspective on reasonableness.

The *theoretical* component concerns the ideal model itself, including four discussion stages, fifteen rules for critical discussion and a code of conduct for discussants, all based on the relevant speech acts to be performed in each of the discussion stages. On a theoretical level, I have added to the pragma-dialectical research on argument schemes, extending the insights developed by van Eemeren, Grootendorst and Kruiger (1986), van Eemeren and Grootendorst (1992) and Garssen (1997). I have added to these insights by providing a renewed schematic representation of authority argumentation, delving further into the soundness conditions for this type of argumentation, and defining a variety of authority argumentation that has thus far not been studied within pragma-dialectics: experience-based authority argumentation.
The analytical component of the pragma-dialectical research program concerns principles of reconstruction: the dialectical transformations that need to be performed to bridge the gap between theory and argumentative reality. On an analytical level, I have presented a prototypical argumentative pattern that shows the constellation of argument schemes and argumentation structures that arises when an advertiser reacts to anticipated critical questions regarding his or her use of experience-based authority argumentation in a DTC medical ad. I have shown how such a pattern approach, a new research development in pragma-dialectics, constitutes a valuable analytic tool in studying the strategic maneuvering occurring in particular communicative activity types.

Unlike an approach where one only lists the soundness conditions of a particular kind of argumentation in a certain communicative activity type, a pattern approach also relates these soundness conditions to the way(s) in which they can be anticipated. The prototypical argumentative pattern that I presented consists of prototypical answers to various anticipated critical questions, and can be considered as a general lay-out of options available to an advertiser when (s)he chooses to anticipate criticism concerning experience-based authority argumentation. By mapping out in the actual reconstruction of an advertisement which parts of the pattern have been instantiated and which parts have not, we can define the topical choices that an advertiser has made in his or her strategic maneuvering. Comparing the actual reconstruction to the prototypical argumentative pattern and seeing where they differ, can help the analyst to identify which answers to critical questions, if any, have been provided, ambiguously anticipated or facilitated. Such an approach provides valuable insights into the particular choices that an arguer has made in his or her strategic maneuvering, and provides clues as to the reasons the arguer may have had for making these choices.

The empirical component of the research program concerns the investigation, both qualitatively and quantitatively, of argumentative reality. On an empirical level, I have investigated whether ordinary language users evaluate direct-to-consumer medical advertisements by means of criteria that are more or less in line with the soundness conditions that can be specified on the basis of theoretical considerations. In doing so, I follow on from the empirical research by van Eemeren, Garssen and Meuffels (2009) in providing more insights into the intersubjective validity of the pragma-dialectical Argument Scheme Rule for one particular context. Using an approach similar to that of van Eemeren, Garssen and Meuffels, I have shown that certain analytical findings of this dissertation do not only possess problem validity, but also intersubjective validity. Whereas the first part of the dissertation proved my findings to be problem valid, the empirical part of my dissertation has shown that some of those analytical findings also possesses intersubjective validity: real arguers were shown (to a certain extent) to make use of evaluation criteria that were in line with critical questions that were tested.

Finally, the practical component of the research program deals with the problems occurring in institutionalized argumentative practices. My argumentative characterization of the communicative activity type of direct-to-consumer medical advertisements benefits the practical component of the pragma-dialectical research program, with its ongoing research into conventionalized argumentative practices. My results particularly add to those acquired in the cluster of pragma-dialectically oriented research projects concerning the domain of medical communication. This cluster includes the research
carried out by Snoeck Henkemans on the different kinds of institutional constraints in medical communication (Snoeck Henkemans & Mohammed, 2014; Snoeck Henkemans & Wagemans, 2015); by van Poppel on pragmatic argumentation in health brochures (van Poppel, 2013; 2014); and by Labrie as well as by Pilgram on argumentation in general practice consultation (Labrie, 2014; Labrie & Schulz, 2015; Pilgram, 2014; 2015). For one particular medical activity type, I have defined the macro-contextual constraints that constitute the institutional pre-conditions for strategic maneuvering. By characterizing DTC medical advertisements as a hybrid argumentative activity type in which not only medical, but also commercial goals are at stake, I have shed light on the constraints that such a hybrid activity type imposes on an advertiser’s possibilities for strategic maneuvering.

On an even more practical level, extending our scope beyond the argumentation-theoretical implications of my research, the results of this dissertation could also be relevant to the creators of DTC medical advertisements. The characterization of the communicative activity type that was provided in Chapter 2 – including the finding that the activity type is a hybrid, resulting in a composite institutional point – and the pre-conditions for strategic maneuvering that were discussed as a result of this characterization, could provide useful pointers for pharmaceutical companies – or advertisers on their behalf – on how to compose their advertisements. These insights could be applied to enlighten the writers of DTC medical ads on how to strategically maneuver in such a way that they can be both reasonable and effective, as well as fulfilling both their medical and their commercial aims. The fact that PhRMA (Pharmaceutical Research and Manufacturers of America), the organization that represents most of the major pharmaceutical companies in the United States, state in their guiding principles that they “are committed to ensuring that [their] DTC communications provide accurate, accessible and useful health information to patients and consumers” and that “DTC advertising of such important and powerful products as prescription drugs should be responsibly designed to achieve these goals” (Pharmaceutical Research and Manufacturers of America, 2008, p. 3), indicates that pharmaceutical companies might in fact be well-disposed to expand their knowledge on how they can reasonably balance their medical and commercial aims through strategic maneuvering.

Moreover, my results can provide insights to policy makers, regarding possible misleading uses of argumentation in medical advertisements. Although additional research will have to be carried out to see whether my results can be replicated, the empirical research that I carried out suggests that readers of DTC medical advertisements perceive particular derailed maneuvers to be just as effective as reasonable maneuvers, which could be an indication that consumers might be persuaded in an unreasonable manner to use drugs that are not appropriate for them.

Research concerning (misleading) argumentation in DTC medical advertisements can be fruitful for discussions on whether advertisements for prescription drugs should also be allowed in other parts of the world than solely the United States and New Zealand, and discussions on whether they should be banned in the latter countries. One of the reasons given by the proponents of DTC prescription drug ads in the United States for not banning such advertisements is that they empower consumers by allowing them to make their own rational decision about which drug to use. To appraise that reason, an empirical account of the extent to which DTC medical advertisements are able to mislead
consumers can be helpful. If future research would corroborate my tentative finding that readers of these advertisements consider particular derailed maneuvers just as effective as sound maneuvers, then such research could show that consumer’s decisions to ask for a particular drug based on these advertisements are not always so rational and well-advised as the proponents of DTC medical advertisements sometimes suggest.

Although it may seem that preventing patients from using inappropriate drugs is up to the physicians who actually prescribe a drug to a patient, in a survey conducted amongst 454 family physicians, 71 percent of the respondents indicated to believe that direct-to-consumer advertising pressures physicians into prescribing drugs that they would not ordinarily prescribe (Lipsky & Taylor, 1997). In order to ward patients from being unreasonably persuaded to use certain medical products, from a public health perspective it would be beneficial to draw up specific regulations concerning the argumentation in DTC medical advertisements, rather than just concerning the information in them. Such regulations could be motivated by empirical findings about these advertisements’ potential to mislead consumers by means of certain types of maneuvers.

7.3 Suggestions for Further Research

Certain extensions could be added as a logical follow-up to the research presented in this dissertation. First of all, it would be worthwhile to conduct a quantitative corpus study of DTC medical advertisements to investigate to what extent the prototypical argumentative pattern concerning experience-based authority argumentation that I discussed, can be found to appear in actual advertisements, so that it becomes clear whether it can be called a stereotypical argumentative pattern. Van Eemeren and Garssen suggest that qualitative research into argumentative patterns be followed by “quantitative empirical research of representative corpuses of argumentative discourse from each of the domains involved, to determine and compare the frequencies of occurrence of the various [prototypical] argumentative patterns that have been identified” (van Eemeren & Garssen, 2015, p. 581).

My expectation is that in actual DTC medical advertisements in which experience-based authority argumentation is used, this authority argumentation will typically be presented in an approximation of the pattern that I discussed in this dissertation. This expectation is based on analytical considerations: the pattern was motivated by the institutional pre-conditions that constrain the advertisers in their strategic maneuvering concerning experience-based authority argumentation, and was also motivated by the critical questions that these advertisers have to anticipate. To back up my expectation with quantitative results, a large-scale corpus of DTC medical advertisements containing experience-based authority arguments would have to be compiled and consequently coded according to the constellation of argumentative moves that they contain, and it would have to be determined in what percentage of cases advertisers use argumentation that is an approximation of my pattern, and in what percentage they deviate from the pattern.

The three kinds of anticipation maneuvers that I distinguished could likewise be subjected to a corpus-based quantitative study: it would be worthwhile to collect data about the frequency with which these maneuvers are used in actual advertisements. Using
the same corpus as in the “pattern study” discussed above, strategic maneuvers concerning experience-based authority argumentation could be coded according to whether they can be classified as providing an answer to a critical question, exploiting ambiguity concerning an answer to a critical question, facilitating an answer to a critical question, or possibly an altogether different type of anticipation maneuver. In both of the two suggested corpus studies, the research carried out at the University of Lugano by Schulz et al. could be used as a starting point. Schulz and Hartung, for instance, developed a codebook for a content analysis of DTC medical advertisements as well as advertisements directed at physicians, based on a corpus of 120 medical advertisements that appeared between 2003 and 2006 (Schulz & Hartung, n.d., cited in Mohammed & Schulz, 2012).

Another follow-up project could consist of additional experimental research, either in the form of experiments concerning other critical questions, or in the form of replications concerning the same critical questions that were studied in the experiments reported in this dissertation. Currently, two subordinate critical questions for experience-based authority argumentation in DTC medical advertisements have been experimentally tested: the Desirable Consequence question and the Only for Profit question. The other soundness conditions that were presented in Chapter 3 have not yet been tested. To find out whether the remaining critical questions possess intersubjective validity, additional experiments could be carried out concerning the other critical questions.

Furthermore, a useful replication study that would be almost identical to the experiments in the current study, would be an experiment with the same kinds of artificial advertisements that I used, testing the same critical questions, but with more statistical power, which can be achieved by increasing the sample size and/or using more messages per experimental condition. If similar results would be found in such an experiment, then the generalizability of the results obtained in this dissertation would be increased. It would also be fruitful to see if a replication of the current experiment that uses a sample that is not as highly educated as the participants in the experiments reported in this dissertation, would lead to the same kinds of results as the ones that I obtained.

A somewhat different kind of replication would be an experiment in which real, rather than fictional, advertisements are used. Because no other research had yet been carried out to test my particular independent variables, in the current study it was necessary to favor internal validity over ecological validity. By keeping the aspects of the advertisements that I was not interested in studying – such as, for instance, the gender of the endorser – as constant as possible over the whole set of artificial advertisements, it could be assumed with more certainty that the reasonableness judgments of the participants were based on the manipulation of the independent variables that were tested, and not on other characteristics of the advertisements. Using constructed examples rather than real examples, however, has to some extent limited the ecological validity of the results obtained in this research, as it makes it harder to generalize the results of the experiments. Whereas I had to favor internal validity over ecological validity because of a lack of previous results to build on, future research focusing on ecological validity could follow on from the results acquired in the current study. It would be worthwhile to replicate my experiments by using actual DTC medical advertisements, to see whether the same results can then be found.
In such a study, actual advertisements would have to be classified by several analysts according to whether or not they contain satisfactory or unsatisfactory answers to critical questions or exploitations of ambiguity concerning an answer to a critical question. The advertisements for which the analysts agree on the classification should be selected to be used in the experiment. Next, participants would have to be asked to judge these advertisements by means of the same kinds of questionnaires that I used in my experiments, and the results of the new study would have to be compared to the results that I reported in this dissertation. Using actual advertisements will make it more difficult to rule out alternative explanations concerning the particular, spurious characteristics of the advertisements that are used, because these actual advertisements will unavoidably be less uniform than the ones I constructed. If, however, the results of the new experiment would corroborate those acquired in the experiments presented in this dissertation, it could be assumed with more certainty that my empirical results are in fact generalizable.
APPENDIX A

Sample Messages for Experiment I

Below, sample messages of the four experimental conditions in experiment I, as well as the two filler messages, are presented. Advertisements are represented in a reduced size; in the experiment all advertisements were presented to the participants in A4 size.

Figure A.1. Sample message of the Ad Type “Unpaid User”.

All my life, I’ve had trouble sleeping. Until I asked my doctor about SOMNUM.

Ask your doctor too!

– Jennifer Nelson,
Madison, KS
If you suffer from heartburn day after day...

Ask your doctor about PRALIVIA!

- Joyce Thompson, Greenville, GA

**PRALIVIA** (lyntaxadirs, 100 mg tablets) IS PRESCRIBED TO PROVIDE RELIEF FROM HEARTBURN (PAIN CAUSED BY RISING STOMACH ACID)

**Important Safety Information:**

Possible side effects include headache and diarrhea. Not for use in children. Please read the important product information on the adjacent page.

You are encouraged to report negative side effects of prescription drugs to the FDA. Visit www.fda.gov/medwatch, or call 1-800-FDA-1088.

Talk to your doctor about your symptoms and find out if Pralivia is right for you. Available by prescription only.

Joyce Thompson is not an actual user of Pralivia. She was not compensated for appearing in this advertisement.

Figure A.2. Sample message of the Ad Type “Unpaid Nonuser”.
I wanted relief
from my migraine pains...

So I asked my doctor
about Crotaphos.
Ask your doctor too!

- Lisa King,
Ashland, OR

Figure A.3. Sample message of the Ad Type “Paid User”.

Important safety information

Not for use in patients suffering from conditions affecting the heart or the arteries.
Not for use on a daily basis.

Possible side effects include nasal irritation, nausea and fatigue.

Please read the important product information on the adjacent page.

You are encouraged to report negative side effects of prescription drugs to the FDA. Visit www.fda.gov/medwatch, or call 1-800-FDA-1088.

Lisa King experienced a significant decrease of migraine pains after using Crotaphos. She was compensated for appearing in this advertisement. Individual results may vary.
If you are worried about your cholesterol...

Ask your doctor about **Adipem**!

- Barbara Clark, Dayton, IA

*Adipem* (adipestatin calcium, 100 mg tablets) is prescribed to lower cholesterol levels and to lower the progression of plaque buildup in arteries.

---

**Important safety information:**

Do not mix with alcohol. Possible side effects include muscle aches, nausea and diarrhea. Not for use in children. Please read the important product information on the adjacent page.

Talk to your doctor about your symptoms and find out if Adipem is right for you. Available by prescription only.

You are encouraged to report negative side effects of prescription drugs to the FDA. Visit [www.fda.gov/medwatch](http://www.fda.gov/medwatch), or call 1-800-FDA-1088.

©2014 Binar Pharmaceuticals

Barbara Clark is not an actual user of Adipem. She was compensated for appearing in this advertisement.

---

*Figure A.4. Sample message of the Ad Type “Paid Nonuser”.*
Clinical research has shown that DISCESSUM can help relieve rheumatoid arthritis pain.

Ask your doctor!

Sample Messages for Experiment I
Figure A.6. Sample advertisement of the Ad Type “Fallacious Filler”.
APPENDIX B

Sample Page of Questionnaire for Experiments I and II

Please answer the following questions about this advertisement, based on the page you just studied.

To what extent do you agree with the following statements?

## I find this advertisement easy to understand. *

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>[do not wish to answer]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
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<tr>
<td>Agree very strongly</td>
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<tr>
<td>Agree strongly</td>
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<tr>
<td>Disagree</td>
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<td></td>
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<tr>
<td>Disagree very strongly</td>
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</tbody>
</table>

## I find this advertisement entertaining. *

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<th>6</th>
<th>7</th>
<th>[do not wish to answer]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
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<tr>
<td>Agree very strongly</td>
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<td></td>
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<tr>
<td>Agree strongly</td>
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<td></td>
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<tr>
<td>Disagree</td>
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<tr>
<td>Disagree very strongly</td>
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</tr>
</tbody>
</table>

## This advertisement looks like an advertisement that I might encounter in an actual magazine. *

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<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>[do not wish to answer]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
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<tr>
<td>Agree very strongly</td>
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<td></td>
</tr>
<tr>
<td>Agree strongly</td>
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<tr>
<td>Disagree</td>
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<td></td>
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<tr>
<td>Disagree very strongly</td>
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</tr>
</tbody>
</table>

For the following two questions, please take into account the endorsement by a particular woman that is presented in the advertisement, as well as any further information that the advertisement provides about this woman.

To what extent do you agree with the following statements?

## I find this woman’s endorsement a reasonable argument for the claim that people should use this drug. *

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<th>7</th>
<th>[do not wish to answer]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
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<td>Agree very strongly</td>
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<td></td>
</tr>
<tr>
<td>Agree strongly</td>
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<td></td>
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<tr>
<td>Disagree</td>
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<td></td>
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<tr>
<td>Disagree very strongly</td>
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</tr>
</tbody>
</table>

## Because of this woman’s endorsement, I would ask my doctor about Pralivia if I were suffering from heartburn. *

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>[do not wish to answer]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
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<tr>
<td>Agree very strongly</td>
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<tr>
<td>Agree strongly</td>
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<td></td>
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<tr>
<td>Disagree</td>
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</tr>
<tr>
<td>Disagree very strongly</td>
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</tr>
</tbody>
</table>
To calculate the expected mean squares, variance estimates and quasi-F-ratios (with corresponding degrees of freedom) that are needed to determine whether the main results discussed in Chapter 5 are significant, a statistical model was built following the rules presented in Jackson & Brashers (1994, pp. 17-30).

**Design basics**

<table>
<thead>
<tr>
<th></th>
<th>Not Compensated Yes</th>
<th>Not Compensated No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experienced Yes</td>
<td>3 ads</td>
<td>3 ads</td>
</tr>
<tr>
<td>Experienced No</td>
<td>3 ads</td>
<td>3 ads</td>
</tr>
</tbody>
</table>

Plot I (grey background): 100 respondents
Plot II (white background): 100 respondents

The random factor “advertisements” is nested within the interaction of the fixed factors “Experienced” and “Not Compensated”. The random factor “respondents” is nested within the fixed factor “Experienced”. The levels of the random factor “respondents” are divided among the levels of the fixed factor “Experienced”, forming two plots of respondents, with “Experienced” as a between-subjects factor. Within a single plot, all respondents are crossed with all levels of the fixed factor “Not Compensated” (within-subjects factor) and with all levels of the random factor “advertisements” (within-subjects factor).
Appendix C

Description of the design

Factors

E  Experienced
N  Not Compensated
a(E x N)  advertisement
r(E)  respondent

Possible Interactions

All products:

\[
\begin{align*}
E \times N &\quad E \times N \times a(E \times N) \\
E \times a(E \times N) &\quad E \times N \times r(E) \\
E \times r(E) &\quad E \times a(E \times N) \times r(E) \\
N \times a(E \times N) &\quad N \times a(E \times N) \times r(E) \\
N \times r(E) &\quad E \times N \times a(E \times N) \times r(E) \\
a(E \times N) \times r(E) &
\end{align*}
\]

After deleting the products in which upper case letters appear both inside and outside parentheses, three possible interactions remain:

\[
\begin{align*}
E \times N \\
N \times r(E) \\
a(E \times N) \times r(E)
\end{align*}
\]

Sources of variance (four factors plus three interactions)

\[
\begin{align*}
E \\
N \\
E \times N \\
a(E \times N) \\
r(E) \\
r(E) \times N \\
r(E) \times a(E \times N)
\end{align*}
\]
**Expected Mean Squares**

An Expected Mean Square is the expected average value of a variance source, computed over many identically structured hypothetical sets of observations. The Expected Mean Square of a particular variance source is a sum of all the components that contain all of the letters used to name that source; with the exception of those that contain extra uppercase letters, other than in parentheses.

<table>
<thead>
<tr>
<th>Sources</th>
<th>Levels</th>
<th>Components</th>
<th>Expected Mean Squares</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>e</td>
<td>narθ₂ₚₑ</td>
<td>narθ₂ₑ + Σσ²ₑ + naσ²ₑ + Σσ²ₑ x aₑ x nₑ</td>
</tr>
<tr>
<td>N</td>
<td>n</td>
<td>earθ₂ₚₑ</td>
<td>earθ₂ₑ + Σσ²ₑ + aoσ²ₑ x nₑ + Σσ²ₑ x aₑ x nₑ</td>
</tr>
<tr>
<td>E x N</td>
<td></td>
<td>arθ₂ₑ x nₑ</td>
<td>arθ₂ₑ x nₑ + Σσ²ₑ x nₑ + aoσ²ₑ x nₑ + Σσ²ₑ x aₑ x nₑ</td>
</tr>
<tr>
<td>a(E x N)</td>
<td>a</td>
<td>rσ²ₑ x aₑ</td>
<td>rσ²ₑ x aₑ + Σσ²ₑ x aₑ x nₑ</td>
</tr>
<tr>
<td>r(E)</td>
<td>r</td>
<td>naσ²ₑ</td>
<td>naσ²ₑ + Σσ²ₑ x aₑ x nₑ</td>
</tr>
<tr>
<td>r(E) x N</td>
<td></td>
<td>aoσ²ₑ</td>
<td>aoσ²ₑ x aₑ + Σσ²ₑ x aₑ x nₑ</td>
</tr>
<tr>
<td>r(E) x a(E x N)</td>
<td></td>
<td>σ²ₑ x aₑ x nₑ</td>
<td>σ²ₑ x aₑ x nₑ</td>
</tr>
</tbody>
</table>
Appendix C

Quasi-F-ratios (F’)

The quasi-F-ratio (the ratio between treatment and error) can be calculated by constructing a numerator and denominator in such a way that the only difference is the presence of the variance component representing the treatment.

\[
F'_E = \frac{MS_E + MS_{r(E) \times a(E \times N)}}{(MS_{a(E \times N)} + MS_{r(E)})}
\]

\[
F'_N = \frac{MS_N + MS_{r(E) \times a(E \times N)}}{(MS_{a(E \times N)} + MS_{r(E)})}
\]

\[
F'_{E \times N} = \frac{MS_{E \times N} + MS_{r(E) \times a(E \times N)}}{(MS_{a(E \times N)} + MS_{r(E) \times N})}
\]

Degrees of freedom for Quasi-F-ratios

\[
um = \text{numerator}
\]

\[
den = \text{denominator}
\]

For \(F'_E\)

\[
df'_{num} = \frac{(MS_E + MS_{r(E) \times a(E \times N)})^2}{((MS^2_E / df_E) + (MS^2_{r(E) \times a(E \times N) / df_{r(E) \times a(E \times N)}})}
\]

\[
df'_{den} = \frac{(MS_{a(E \times N)} + MS_{r(E)})^2}{((MS^2_{a(E \times N) / df_{a(E \times N)}}) + (MS^2_{r(E) / df_{r(E)}})}
\]

For \(F'_N\)

\[
df'_{num} = \frac{(MS_N + MS_{r(E) \times a(E \times N)})^2}{((MS^2_N / df_N) + (MS^2_{r(E) \times a(E \times N) / df_{r(E) \times a(E \times N)}})}
\]

\[
df'_{den} = \frac{(MS_{a(E \times N)} + MS_{r(E) \times N})^2}{((MS^2_{a(E \times N) / df_{a(E \times N)}}) + (MS^2_{r(E) \times N} / df_{r(E) \times N)}}
\]

For \(F'_{E \times N}\)

\[
df'_{num} = \frac{(MS_{E \times N} + MS_{r(E) \times a(E \times N)})^2}{((MS^2_{E \times N} / df_{E \times N}) + (MS^2_{r(E) \times a(E \times N) / df_{r(E) \times a(E \times N)}})}
\]

\[
df'_{den} = \frac{(MS_{a(E \times N)} + MS_{r(E) \times N})^2}{((MS^2_{a(E \times N) / df_{a(E \times N)}}) + (MS^2_{r(E) \times N} / df_{r(E) \times N)}}
\]
APPENDIX D

Sample Messages for Experiment II

Below, sample messages of the three experimental conditions in experiment II are provided. The filler messages in experiment II were the same as those for experiment I, which can be found in Appendix A. Advertisements are represented in a reduced size; in the experiment all advertisements were presented to the participants in A4 size.

Figure D.1. Sample message of the Ad Type “User”.

If you want relief from your migraine pains...

Ask your doctor about Crotaphos!

- Lisa King,
  Ashland, OR

Important safety information

Not for use in patients suffering from conditions affecting the heart or the arteries. Not for use on a daily basis.

Possible side effects include nasal irritation, nausea and fatigue. Not for use in children.

Please read the important product information on the adjacent page.

You are encouraged to report negative side effects of prescription drugs to the FDA. Visit www.fda.gov/medwatch, or call 1-800-FDA-1088.

Lisa King is not an actual user of Crotaphos.

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Figure D.2. Sample message of the Ad Type “Nonuser”.

220
If your asthma makes life difficult...

Ask your doctor about SPIRANT!

- Elaine Simmons,
  Bristol, CO

SPIRANT (spirafacile, 115 mcg inhalation aerosol) is prescribed to treat airway constriction and airway inflammation

Important Safety Information:
Possible side effects include throat irritation and hoarseness. Not for use in children. Please read the important product information on the adjacent page. You are encouraged to report negative side effects of prescription drugs to the FDA. Visit www.fda.gov/medwatch, or call 1-800-FDA-1088.

Talk to your doctor about your symptoms and find out if SPIRANT is right for you. Available by prescription only.

Elaine Simmons is an actual patient.

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Figure D.3. Sample message of the Ad Type "Ambiguous".
APPENDIX E

Statistical Model for Main Effects in Experiment II

(see Appendix C for a more detailed explanation of the different elements in the model)

DESIGN BASICS

<table>
<thead>
<tr>
<th>Experienced</th>
<th>2 ads</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experienced Yes</td>
<td>2 ads</td>
</tr>
<tr>
<td>Experienced No</td>
<td>2 ads</td>
</tr>
<tr>
<td>Experienced Ambiguous</td>
<td>2 ads</td>
</tr>
</tbody>
</table>

Multiple message, within-subjects design in which the random factor “respondent” is crossed with the random factor “advertisement”, the random factor “advertisement” being nested within the fixed within-subjects factor “Experienced” (which has 3 levels).

DESCRIPTION OF THE DESIGN

Factors

E Experienced
a(E) advertisement
r respondent

Sources of variance (three factors plus two interactions)

E
a(E)
r
E x r
a(E) x r
# Appendix E

## Expected Mean Squares

<table>
<thead>
<tr>
<th>Sources</th>
<th>Levels</th>
<th>Components</th>
<th>Expected Mean Squares</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>e</td>
<td>$a r^2$</td>
<td>$\artheta^2_E + r^2  \sigma^2 + a^2 \sigma^2$</td>
</tr>
<tr>
<td>a(E)</td>
<td>a</td>
<td>$r\sigma^2$</td>
<td>$\sigma^2_{a(E)} + \sigma^2_{a(E) x r}$</td>
</tr>
<tr>
<td>r</td>
<td>r</td>
<td>$ea\sigma^2_r$</td>
<td>$ea\sigma^2_r + \sigma^2_{a(E) x r}$</td>
</tr>
<tr>
<td>E x r</td>
<td></td>
<td>$a\sigma^2_{E x r}$</td>
<td>$a\sigma^2_{E x r} + \sigma^2_{a(E) x r}$</td>
</tr>
<tr>
<td>a(E) x r</td>
<td></td>
<td>$\sigma^2_{a(E) x r}$</td>
<td>$\sigma^2_{a(E) x r}$</td>
</tr>
</tbody>
</table>

## Quasi-F-ratio ($F'$)

$$F'_E = \frac{(MSE + MS_{a(E) x r})}{(MS_{a(E)} + MSE \times r)}$$

**Degrees of freedom for Quasi-F-ratio**

$num = numerator$

$den = denominator$

For $F'_E$

$$df'_{num} = \left(\frac{MS_E}{df_E} + \frac{MS_{a(E) x r}}{df_{a(E) x r}}\right)^2 / \left(\left(\frac{MS_E}{df_E}\right) + \left(\frac{MS_{a(E) x r}}{df_{a(E) x r}}\right)\right)$$

$$df'_{den} = \left(\frac{MS_{a(E)}}{df_{a(E)}} + \frac{MS_{E x r}}{df_{E x r}}\right)^2 / \left(\left(\frac{MS_{a(E)}}{df_{a(E)}}\right) + \left(\frac{MS_{E x r}}{df_{E x r}}\right)\right)$$
Statistical Model for Participant Characteristics in Experiment II

(see Appendix C for a more detailed explanation of the different elements in the model)

**DESIGN BASICS**

<table>
<thead>
<tr>
<th>Experienced Yes</th>
<th>2 ads</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experienced No</td>
<td>2 ads</td>
</tr>
<tr>
<td>Experienced Ambiguous</td>
<td>2 ads</td>
</tr>
</tbody>
</table>

Multiple message, mixed design in which the random factor “respondent” is crossed with the random factor “advertisement”, the random factor “advertisement” being nested within the fixed within-subjects factor “Experienced” (which has 3 levels). To test the influence of participant characteristics, these characteristics can be added as a fixed between-subjects factor “characteristic” in which the random factor “respondents” is nested.

**DESCRIPTION OF THE DESIGN**

Factors

E     Experienced
a(E)  advertisement
r(C)  respondent
C     characteristic
Appendix F

Sources of variance (four factors plus four interactions)

E
a(E)
r(C)
C
E x r(C)
E x C
a(E) x r(C)
a(E) x C

Expected Mean Squares

<table>
<thead>
<tr>
<th>Sources</th>
<th>Levels</th>
<th>Components</th>
<th>Expected Mean Squares</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>e</td>
<td>arcθ²_E</td>
<td>arcθ²_E + rrc²_a(E) + aσ²_E x r(C) + σ²_a(E) x r(C)</td>
</tr>
<tr>
<td>a(E)</td>
<td>a</td>
<td>rrc²_a(E)</td>
<td>rrc²_a(E) + σ²_a(E) x r(C)</td>
</tr>
<tr>
<td>r(C)</td>
<td>r</td>
<td>eaσ²_r(C)</td>
<td>eaσ²_r(C) + σ²_a(E) x r(C)</td>
</tr>
<tr>
<td>C</td>
<td>c</td>
<td>areθ²_C</td>
<td>areθ²_C + eaσ²_r(C) + σ²_a(E) x r(C) + rσ²</td>
</tr>
<tr>
<td>E x r(C)</td>
<td></td>
<td>aσ²_E x r(C)</td>
<td>aσ²_E x r(C) + σ²_a(E) x r(C)</td>
</tr>
<tr>
<td>E x C</td>
<td></td>
<td>arσ²_E x C</td>
<td>arσ²_E x C + aσ²_E x r(C) + σ²_a(E) x r(C) + rσ²</td>
</tr>
<tr>
<td>a(E) x r(C)</td>
<td></td>
<td>σ²_a(E) x r(C)</td>
<td>σ²_a(E) x r(C)</td>
</tr>
<tr>
<td>a(E) x C</td>
<td></td>
<td>rσ²_a(E) x C</td>
<td>rσ²_a(E) x C + σ²_a(E) x r(C)</td>
</tr>
</tbody>
</table>

Quasi-F-ratio (F’)

\[F' = \left( \frac{MS_C + MS_{a(E) x r(C)}}{MS_{a(E) x C} + MS_{r(C)}} \right)\]

Degrees of freedom for Quasi-F-ratio

\[num = \text{numerator}\]
\[den = \text{denominator}\]

For F’:

\[\text{df' num} = \left( MS_C + MS_{a(E) x r(C)} \right)^2 / \left( (MS_C + MS_{a(E) x r(C)}) / df_C + (MS_{a(E) x r(C)} / df_{a(E) x r(C)}) \right)\]
\[\text{df' den} = \left( MS_{a(E) x C} + MS_{r(C)} \right)^2 / \left( (MS_{a(E) x C} + MS_{r(C)}) / df_{a(E) x C} + (MS_{r(C)} / df_{r(C)}) \right)\]
In a direct-to-consumer (DTC) medical advertisement, a manufacturer aims to convince consumers to use a medical product, such as a dietary supplement, a freely obtainable pain killer or a prescription drug. The term “direct-to-consumer” indicates that these ads are aimed at consumers, not at doctors or other medical professionals. In most parts of the world, these advertisements are only allowed for medical products that are freely available. But in the US and New Zealand, direct-to-consumer advertisements are also allowed for prescription-only drugs, so that a consumer can read an ad for a specific prescription drug and can then ask his doctor to prescribe that drug to him. This dissertation is concerned with one specific type of argumentation in printed American DTC medical advertisements: endorsements by people who have used a product themselves and advise others to try it as well. Such a product endorsement can be seen as a form of “experience-based authority argumentation”.

Using the pragma-dialectical argumentation theory as a theoretical framework, this dissertation sets out to realize two aims: to provide an account of how an advertiser can anticipate criticism concerning experience-based authority argumentation, and to determine to what extent the readers of these advertisements differentiate between reasonable and unreasonable ways of anticipating such criticism. The study is divided into an analytical and an experimental part, with the analytical part addressing the first aim, and the experimental part addressing the latter aim.

In the analytical part, I start out by characterizing DTC medical advertisements as a “communicative activity type”, aimed at fulfilling the institutional needs prevailing in a certain communicative domain. An advertiser’s most important aim is to get the reader of the advertisement to use a certain product. When we look at the goals set forth in the applicable industry guidelines and legislation, however, the point of DTC medical ads is also to enable consumers to carefully consider whether they should use a certain medical product. This means that this communicative activity type can be placed in an overlap between two communicative domains: commercial communication and medical communication.

The institutional conventions that shape DTC medical advertisements involve explicit legal rules and advertising codes, plus a number of implicit institutional customs and characteristics connected to the advertising format. Starting from these general conventions, I characterize the communicative activity type in terms of its argumentative features, in order to identify the constraints that are imposed upon an advertiser’s argumentation.

Next, I discuss the soundness conditions that can be used to determine whether experience-based authority argumentation is reasonable or fallacious. I provide a list of relevant critical questions for authority argumentation in general and consequently make these questions more specific in order for them to apply to experience-based authority argumentation. Making use of the insights regarding the communicative activity type that
were acquired earlier, I also specify these critical questions for the particular context of DTC medical advertisements. The result is a set of two main critical questions for the use of experience-based authority argumentation in DTC medical advertisements with a set of corresponding subordinate critical questions that can be used to determine whether or not a particular critical question can be answered satisfactorily.

Subsequently, based on these critical questions, a “prototypical argumentative pattern” of experience-based authority arguments in DTC medical advertisements is presented. When an arguer reacts to anticipated critical questions regarding his argumentation, a specific kind of pattern of argumentative moves comes into being. In argumentative practice, the use of an authority argument is always embedded in such an argumentative pattern. The pattern that I discuss, incorporates the institutional characteristics of the communicative activity type, such as the formulation of the standpoint that “Suitable patients should use drug X”. It also incorporates satisfactory answers to the critical questions that I discussed. A pattern like this can be considered as a general lay-out of the choices that are available to an advertiser when (s)he wants to anticipate criticism concerning an experience-based authority argument.

Next, I distinguish three kinds of “anticipation maneuvers” that an advertiser can use to anticipate the critical questions that (s)he expects his or her audience to raise concerning an experience-based authority argument in a DTC medical advertisement: providing an answer to a critical question, exploiting ambiguity concerning an answer to a critical question and facilitating an answer to a critical question. An advertiser can provide an answer to a critical question by addressing the question in a direct, straightforward manner. (S)he can, for instance, straightforwardly state that the endorser is an actual user of a drug and has experienced its effectiveness. An advertiser can also exploit ambiguity concerning an answer to an anticipated critical question. (S)he might claim, for instance, that someone is an “actual patient”, which literally only means that this person suffers from the disease that the drug is meant to treat, not that the patient has used the drug or that it has worked for him or her. The advertiser can also merely facilitate an answer to a critical question, by only setting the stage for consumers to regard a critical question to be satisfactorily answerable. For instance, to facilitate an answer to a critical question concerning the representativeness of an endorser, the advertiser can attempt to make an endorser look similar to the target audience, by emphasizing the qualities that the endorser has in common with the reader. The experience of someone who is easy to relate to might be seen as more representative than the experience of someone the reader cannot relate to so easily.

In the experimental part of the study, I discuss two experiments that I carried out to determine to what extent readers of direct-to-consumer medical advertisements differentiate between reasonable and unreasonable argumentation aimed at anticipating critical questions concerning experience-based authority arguments.

The first experiment revolves around the question whether the soundness conditions that were established in the analytical part the dissertation approximate evaluation criteria that are used by ordinary readers of DTC medical ads. The experiment was limited to two of the subordinate critical questions: first, whether there is no notable reason to assume that the endorser did not actually experience the desirable
consequence(s) of the advertised drug – the Desirable Consequence question – and second, whether there is no notable reason to assume that the endorser only claims that a drug has a desirable consequence because (s)he profits from claiming this – the Only for Profit question. If these two soundness conditions indeed approximate criteria used by ordinary readers, advertisements in which the questions can be answered satisfactorily should be perceived as more reasonable and effective than advertisements in which they cannot be answered satisfactorily.

Two hundred American participants were asked to judge the reasonableness and effectiveness of the argumentation in eight artificial advertisements. The satisfactory or unsatisfactory answers to the two tested critical questions were straightforwardly provided in the advertisements. For instance, for the experimental condition in which both of the critical questions are answered satisfactorily, an advertisement would mention that the endorser had achieved a significant decrease of symptoms after using the advertised drug and that she was not compensated for appearing in the advertisement. Four different experimental conditions were created, forming all possible combinations of the satisfactory and unsatisfactory answers to the two critical questions that were tested. The expectation was that an advertisement would receive higher reasonableness and effectiveness scores when a critical question was answered satisfactorily, then when it was answered unsatisfactorily.

The results of the experiment show that for the Desirable Consequence question, we may indeed conclude that readers of medical advertisements apply an evaluation criterion similar to the criterion reflected in the critical question established in the analytical part of the dissertation. Advertisements in which the endorser has experienced the product’s effectiveness are perceived to be significantly more reasonable and effective than advertisements in which the endorser has not experienced this effectiveness.

For the other critical question that was tested, the Only for Profit question, we cannot conclude with certainty whether this question plays a role for the readers of DTC medical advertisements. Advertisements in which the endorser is compensated are perceived as less reasonable than advertisements in which the endorser is not compensated, but these results are only marginally significant.

The purpose of the first experiment was to test whether particular soundness conditions play a role for readers of DTC medical ads at all, in preparation of the second experiment in which anticipation maneuvers concerning these critical questions are tested. Taking into account the only marginally significant results for the Only for Profit question, I decided that it would not be feasible to study the effect of anticipation maneuvers regarding this question. For this reason, I have limited the second experiment to the Desirable Consequence question: whether there is no notable reason to assume that an endorser has not experienced the desirable consequence of the advertised product.

In the follow-up experiment, advertisements in which a satisfactory or unsatisfactory answer to the Desirable Consequence question is provided, were contrasted with advertisements in which an ambiguous anticipation maneuver is used to suggest a satisfactory answer to the Desirable Consequence question, by only stating that the endorser is an “actual patient”. Two hundred American participants who had not participated in the first experiment were asked to judge the reasonableness and effectiveness of the argumentation in eight artificial advertisements.
The aim of the experimental part of this dissertation is to determine to what extent the readers of DTC medical advertisements differentiate between reasonable and unreasonable anticipation maneuvers. The results of the second experiment show that readers do find ambiguous anticipation maneuvers significantly less reasonable than satisfactory answers to critical questions, which suggests that they do to some extent differentiate between reasonable and unreasonable anticipation maneuvers. On the other hand, although theoretically speaking ambiguous anticipation maneuvers are just as unreasonable as unsatisfactory answers to critical questions, readers judge them as significantly more reasonable. Moreover, ambiguous anticipation maneuvers are judged to be significantly more effective than unsatisfactory answers and statistically equally effective to satisfactory answers, which suggests that their potential rhetorical effect is considerable: ambiguous anticipation maneuvers might trick readers into accepting a fallacious argument. Readers do find the maneuvers significantly less reasonable than satisfactory answers that are straightforwardly provided, but their realization that something problematic is going on with these maneuvers is not fully reflected in the perceived effectiveness of ambiguous anticipation maneuvers in comparison to satisfactory answers. The finding that these maneuvers might lead readers to accept a fallacious argument gives cause to classify the use of these ambiguous anticipation maneuvers not just as unreasonable, but also as misleading for consumers.
In medische advertenties proberen adverteerders consumenten ervan te overtuigen een bepaald medisch product te gebruiken, zoals een voedingssupplement, een vrij verkrijgbaar geneesmiddel of een receptmedicijn. In dergelijke advertenties worden geregeld personen opgevoerd – ‘endorsers’ of ‘aanbevelers’ – die beweren dat zij de effecten van een product zelf hebben ervaren. Dit proefschrift gaat over de strategische wijze waarop adverteerders in Amerikaanse ‘direct-to-consumer medical advertisements’ gebruik kunnen maken van deze variant van autoriteitsargumentatie. Daarbij gaat het specifiek om de mogelijkheid te anticiperen op de kritische vragen die een lezer eventueel bij een dergelijk argument zou kunnen stellen.

De term ‘direct-to-consumer’ (‘DTC’) wordt gebruikt voor advertenties die specifiek op consumenten zijn gericht, dus niet op artsen of op andere medische professionals. In de meeste landen zijn zulke consumentenadvertenties alleen toegestaan voor medische producten die vrij verkrijgbaar zijn. In de Verenigde Staten en Nieuw-Zeeland mag echter ook consumentenreclame worden gemaakt voor receptmedicijnen, zodat een patiënt naar aanleiding van een advertentie voor een bepaald medicijn zijn (huis)arts kan vragen om hem dat specifieke medicijn voor te schrijven. In het vervolg van deze samenvatting gebruik ik de Engelse term *DTC medical advertisements* om te verwijzen naar het specifieke soort Amerikaanse consumentenadvertenties waar mijn onderzoek zich op richt.

Dit proefschrift heeft twee doelen, beide benaderd vanuit de pragma-dialectische argumentatietheorie: uitleggen hoe een adverteerder kan anticiperen op kritische vragen over op ervaring gebaseerde autoriteitsargumentatie in *DTC medical advertisements*, en vaststellen in hoeverre de lezers van die advertenties onderscheid maken tussen redelijke en onredelijke manieren om op dergelijke kritiek te anticiperen. Het analytische gedeelte van deze studie hangt samen met het eerste doel, het experimentele gedeelte met het tweede.

In het analytische gedeelte karakteriseer ik *DTC medical advertisements* als een ‘communicatief actietype’, gericht op het vervullen van institutionele doelen binnen een bepaald communicatief domein. Het belangrijkste doel van een adverteerder is een lezer zover te krijgen dat hij een bepaald product gaat gebruiken. Als we echter kijken naar de Amerikaanse wetgeving en de richtlijnen van de Amerikaanse farmaceutische industrie, dan zien we dat *DTC medical advertisements* ook bedoeld zijn om consumenten in staat te stellen een zorgvuldige en redelijke afweging te maken over het al dan niet gebruiken van een medisch product. Hieruit volgt dat dit communicatieve actietype in een overlap tussen twee domeinen geplaatst kan worden: commerciële communicatie en medische communicatie.

De institutionele conventies die bepalend zijn voor *DTC medical advertisements* bestaan uit expliciete wetteksten en reclamecodes, plus een aantal impliciete gebruiken en kenmerken die samenhangen met advertenties. Vanuit deze *algemene conventies*
karakteriseer ik het communicatieve actietype aan de hand van zijn argumentatieve aspecten, om de mogelijkheden en beperkingen voor de argumentatie van een adverteerder in kaart te brengen.

Vervolgens bespreek ik de redelijkheidsvoorwaarden waarmee kan worden beoordeeld of op ervaring gebaseerde autoriteitsargumentatie redelijk of drogredelijk is. Ik bespreek relevante kritische vragen voor autoriteitsargumentatie in brede zin en maak die vragen vervolgens specifieker voor op ervaring gebaseerde autoriteitsargumentatie. Met behulp van de eerder verworven inzichten over het communicatieve actietype specificeer ik deze vragen verder voor de context van DTC medical advertisements. Dit resulteert in twee kritische hoofdvragen voor het gebruik van op ervaring gebaseerde autoriteitsargumentatie in DTC medical advertisements, met een groep bijbehorende subvragen die gebruikt kunnen worden om te bepalen of een hoofdvraag al dan niet bevredigend kan worden beantwoord.

Hierna presenteer ik een ‘prototypisch argumentatief patroon’ van op ervaring gebaseerde autoriteitsargumentatie in DTC medical advertisements. Wanneer een discussiant reageert op geanticipeerde kritiek op zijn argumentatie ontstaat er een specifieker soort patroon van argumentatieve zetten. Het gebruik van een autoriteitsargument in de praktijk altijd ingebonden zetten. Het patroon dat ik bespreek, omvat de institutionele kenmerken van het actietype, zoals de specifieke formulering van het standpunt ‘Geschikte patiënten moeten medicijn X gebruiken’. Het omvat ook bevredigende antwoorden op de kritische vragen die ik heb gepresenteerd. Een dergelijk patroon kan worden beschouwd als een overzicht van de keuzes die een adverteerder ter beschikking staan wanneer hij wil anticiperen op kritiek betreffende zijn op ervaring gebaseerde autoriteitsargumentatie.

Daarna onderscheid ik drie verschillende soorten ‘anticipatiemanoeuvres’ die een adverteerder kan gebruiken om te anticiperen op kritische vragen waarvan hij verwacht dat zijn publiek die zal stellen over een op ervaring gebaseerd autoriteitsargument in een DTC medical advertisement: het geven van een antwoord op een kritische vraag, het misbruik maken van dubbelzinnigheid over een antwoord op een kritische vraag en het faciliteren van een antwoord op een kritische vraag. Een adverteerder kan een antwoord op een kritische vraag geven door op een directe, eenduidige manier op de vraag in te gaan. Hij kan bijvoorbeeld concreet vertellen dat iemand een echte gebruiker van een medicijn is en de wenselijke effecten van het medicijn aan den lijve heeft ondervonden. Een adverteerder kan ook misbruik maken van dubbelzinnigheid over een antwoord op een kritische vraag. Hij zou bijvoorbeeld kunnen zeggen dat iemand een ‘echte patiënt’ is, wat letterlijk alleen betekent dat deze persoon lijdt aan de aandoening waar het medicijn voor is, niet dat de patiënt het medicijn heeft gebruikt of dat het voor hem heeft gewerkt. De adverteerder kan een antwoord op een kritische vraag ook alleen faciliteren, door omstandigheden te scheppen waaronder een consument sneller zal denken dat een kritische vraag bevredigend kan worden beantwoord. Om bijvoorbeeld een antwoord te faciliteren op de kritische vraag of een aanbeveler wel representatief is, kan een adverteerder proberen de aanbeveler te laten overkomen als iemand die veel op de beoogde lezer lijkt, door de nadruk te leggen op de eigenschappen die de aanbeveler gemeen heeft met de lezer. De ervaring van iemand met wie een lezer zich makkelijk kan identificeren zou op de lezer kunnen overkomen als representatief door de ervaring van iemand met wie de lezer zich minder gemakkelijk kan identificeren.
In het experimentele gedeelte van het proefschrift bespreek ik twee experimenten die ik heb uitgevoerd om te bepalen in hoeverre de lezers van DTC medical advertisements onderscheid maken tussen redelijke en onredelijke argumentatie gericht op het anticiperen van kritische vragen over op ervaring gebaseerde autoriteitsargumenten.

Het eerste experiment draait om de vraag of de redelijkheidsvoorwaarden die ik eerder heb vastgesteld in het analytische deel van het proefschrift vergelijkbaar zijn met beoordelingscriteria die gebruikt worden door ‘gewone’ lezers van DTC medical advertisements. Ik heb het experiment beperkt tot twee van de kritische subvragen: als eerste de vraag of er geen noemenswaardige reden is om aan te nemen dat de aanbeveler het wenselijke effect van het aangeprezen medicijn niet echt heeft ervaren – de Wenselijke-Effect-vraag – en als tweede de vraag of er geen noemenswaardige reden is om aan te nemen dat de aanbeveler alleen maar beweert dat het gebruik van een medicijn een wenselijk effect heeft omdat hij hier belang bij heeft – de Alleen-vanwege-Belang-vraag. Als deze twee redelijkheidsvoorwaarden inderdaad vergelijkbaar zouden zijn met beoordelingscriteria die reguliere lezers gebruiken, dan zouden advertenties waarin de vragen bevredigend kunnen worden beantwoord, worden gezien als redelijker en effectiever dan advertenties waarin ze niet bevredigend kunnen worden beantwoord.

Ik heb tweehonderd Amerikaanse proefpersonen gevraagd de redelijkheid en effectiviteit te beoordelen van de argumentatie in acht gefingeerde advertenties. De bevredigende of onbevredigende antwoorden op de twee getoetste kritische vragen stonden eenduidig in de advertenties vermeld. Voor de experimentele conditie waarin beide vragen bevredigend beantwoord werden, stond bijvoorbeeld in de advertentie vermeld dat de aanbeveler een significante vermindering van symptomen had bereikt na gebruik van het aangeprezen medicijn en dat zij geen vergoeding ontving voor haar optreden in de advertentie. Het onderzoek omvatte vier verschillende experimentele condities, die bij elkaar alle mogelijke combinaties vormen van de bevredigende en onbevredigende antwoorden op de twee onderzochte kritische vragen. De verwachting was dat een advertentie hogere redelijkheids- en effectiviteitsscores zou ontvangen wanneer een kritische vraag bevredigend werd beantwoord, dan wanneer deze onbevredigend werd beantwoord.

De resultaten van het experiment laten zien dat we voor de Wenselijke-Effect-vraag inderdaad mogen concluderen dat lezers van medische advertenties een beoordelingscriterium gebruiken dat lijkt op het criterium dat is vervat in de kritische vraag uit het analytische deel van het proefschrift. Advertenties waarin de aanbeveler de effectiviteit van het product wel heeft ervaren, worden gezien als significant redelijker en effectiever dan advertenties waarin de aanbeveler deze effectiviteit niet heeft ervaren.

Voor de andere onderzochte kritische vraag, de Alleen-vanwege-Belang-vraag, kunnen we niet met zekerheid bepalen of deze vraag een rol speelt voor lezers van DTC medical advertisements. Advertenties waarin staat dat de aanbeveler wordt betaald, worden gezien als minder redelijk dan advertenties waarin staat dat de aanbeveler geen vergoeding krijgt, maar deze resultaten zijn slechts marginaal significant.

Het doel van het eerste experiment was om vast te stellen of bepaalde redelijkheidsvoorwaarden überhaupt een rol spelen voor lezers van DTC medical advertisements, als voorbereiding op het tweede experiment waarin anticipatiemanoeuvres betreffende deze kritische vragen getoetst worden. Met het oog op de slechts marginaal
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significante resultaten voor de Alleen-vanwege-Belang-vraag heb ik besloten dat het niet haalbaar zou zijn om het effect te onderzoeken van anticipatiemanoeuvres betreffende deze vraag. Daarom heb ik het tweede experiment beperkt tot de Wenselijke-Effect-vraag: of er geen noemenswaardige reden is om aan te nemen dat een aanbeveler het wenselijke effect van het aangeprezen product niet echt heeft ervaren.

In het vervolgexperiment werden advertenties waarin een bevredigend of onbevredigend antwoord op de Wenselijke-Effect-vraag wordt gegeven, gecontrasteerd met advertenties waarin een dubbelzinnige anticipatiemanoeuvre wordt gebruikt om een bevredigend antwoord op de Wenselijke-Effect-vraag te suggereren door alleen te vermelden dat de aanbeveler een ‘echte patiënt’ is. Ik heb twee honderd Amerikaanse proefpersonen die niet hadden deelgenomen aan het eerste experiment gevraagd de redelijkheid en effectiviteit van de argumentatie in acht gefingeerde advertenties te beoordelen.

Het doel van het experimentele deel van dit proefschrift is om te bepalen in hoeverre de lezers van DTC medical advertisements onderscheid maken tussen redelijke en onredelijke varianten van bepaalde anticipatiemanoeuvres. Uit de resultaten van het tweede experiment blijkt dat de lezers dubbelzinnige anticipatiemanoeuvres onredelijker vinden dan bevredigende antwoorden op kritische vragen, wat erop wijst dat ze in zeker mate onderscheid maken tussen redelijke en onredelijke anticipatiemanoeuvres. Aan de andere kant vinden lezers dubbelzinnige anticipatiemanoeuvres ook redelijker dan onbevredigende antwoorden op kritische vragen, terwijl ze vanuit theoretisch oogpunt net zo onredelijk zijn. Bovendien blijken dubbelzinnige anticipatiemanoeuvres gezien te worden als significant effectiever dan onbevredigende antwoorden en statistisch gezien even effectief als bevredigende antwoorden, wat doet vermoeden dat hun potentiële retorische effect aanzienlijk is: dubbelzinnige anticipatiemanoeuvres kunnen lezers ertoe verleiden een drogredelijk argument te accepteren. Lezers vinden deze manoeuvres wel significant minder redelijk dan eenduidige bevredigende antwoorden, maar dat de lezers doorhebben dat er iets niet pluis is, komt niet volledig terug in hoe effectief ze dubbelzinnige anticipatiemanoeuvres vinden in verhouding tot bevredigende antwoorden. Omdat deze manoeuvres lezers zouden kunnen verleiden tot het accepteren van een drogredelijk argument, kunnen we zeggen dat dubbelzinnige anticipatiemanoeuvres niet alleen onredelijk zijn, maar ook misleidend voor consumenten.
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