Zeitschrift: Studies in Communication Sciences : journal of the Swiss Association of Communication and Media Research

Herausgeber: Swiss Association of Communication and Media Research; Università della Svizzera italiana, Faculty of Communication Sciences

Band: 5 (2005)

Heft: 2

Artikel: "Ask your doctor" : argumentation in advertising of prescription medicines

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DOI: https://doi.org/10.5169/seals-790927

Studies in Communication Sciences 5/2 (2005) 75-98

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'ASK YOUR DOCTOR'. ARGUMENTATION IN ADVERTISING OF PRESCRIPTION MEDICINES[1]

There seems to be an ongoing global debate over the potential benefits and risks of allowing direct-to-consumer advertising of pharmaceutical products. Such advertising is legal in the United States and New Zealand but remains illegal for example in all the other countries of the Western world. It has been argued that the risks derive both from potential misinformation of consumers and inappropriate demands for prescription of these drugs. After reviewing this debate, this paper presents an exploratory study of the argumentation strategies used in US direct-to-consumer print advertising. The aim of the analysis is to understand better what the advertisement seeks to communicate beyond basic product information. In particular I am interested in the possibility that the advertising messages invite consumers to make inaccurate or inappropriate inferences and generalisations, thus affecting their health literacy.

Keywords: direct-to-consumer advertising, argumentation theory, marketing communication, health literacy, health communication.

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[1] This paper is part of a project on direct-to-consumer advertising that I am conducting together with Peter Schulz and Kent Nakamoto. I wish to thank Peter and Kent for the very stimulating discussions on the perspectives of this paper, as well as the anonymous reviewer who has made very constructive criticisms of crucial points of the analysis.

Introduction

The ancient philosopher Aristotle, in his book on rhetoric, claims that debates generally arise when things seem to be capable of admitting two possibilities.[2] No claim better characterises the nature of what is widely recognised as one of the most contentious issues facing the current health-care system—the direct-to-consumer advertising of prescription medication (hereafter DTCA). By definition, the expression DTCA refers to "any promotional effort by a pharmaceutical company to present prescription drug information to the general public in the lay media" (Huh et al. 2004: 569-571). Currently, DTCA is allowed only in the United States and New Zealand. Yet, its introduction in the early 1980's [3] has inflamed a debate that today seems to have assumed a seemingly chronic non-conclusive orientation both at an academic and institutional level.

The core of the debate on DTCA essentially concerns the identification of DTCA either as a beneficial procedure to be promoted or as a damaging procedure to be abolished and consequently not introduced in other countries. Promoters of DTCA present several arguments supporting its positive educational influence on people's health literacy. DTCA is here seen as a way to provide people with adequate information for them to have a safe use of medication, as well as a way to create effective knowledge for evaluating the benefits and risks of drug products, and generally managing health autonomously and appropriately. For promoters of DTCA, pharmaceutical companies can provide more accurate, balanced and scientifically based information than any other sources. Opponents of DTCA emphasise the financial gains of the pharmaceutical industries and the fact that DTCA enhances medicalization of normal human experience. In this last perspective, DTCA is depicted as being devoid of any effective educational value insofar as it does not give adequate information on side effects and non-pharmacological options for treatment and prevention.[4] To cut a long story short, prescription drug advertising generally contains some information about diseases or treatment options, but according to a conspicuous part of the literature,

[2] See *Rhetoric* 1357a ff.
[3] For a history of DTCA see in particular Areni (2002), Tanne (1999), Raven (2004).
[4] For a general overview of the debate on DTCA see Bonaccorso & Sturchio (2003), Jones & Garlick (2003), Murray et al. (2003), Murray et al. (2004), Calfee (2002), Lexchin & Mintzes (2002), CMAJ (2003), Mintzes (2002), Mintzes et al. (2002), Tanne (1999), Lipsky & Taylor (1997), Gardner et al. (2003).

its primary aim is to create name and brand recognition with a view to enhancing the use of the products advertised.[5]

The literature on DTCA suggests that the debate over DTCA is getting bogged down in chains of arguments pro and con, yet the issue *per se* is surely of crucial social importance, especially because there is strenuous lobbying in many countries to relax national restrictions on DTCA (Raven 2004).[6] In addition, *de facto* DTCA in the form of unbranded advertising about specific diseases and conditions increasingly occurs outside the United States and New Zealand (Raven 2004). As some scholars have pointed out, not a lot is known about the effect of DTCA of prescription drugs.[7] Consumer surveys, in particular those by the U.S. Food and Drug Administration (FDA) which has regulatory responsibility for DTCA in the United States and *Prevention* magazine (Calfee 2002), show that consumers are generally aware of DTCA and that they find it useful. Nevertheless, such surveys are limited in that they do not permit a definitive determination of the impact of DTCA on people's health.[8]

In this paper it is not my intention to take a position for or against DTCA. *Rebus sic stantibus* this position would be moved more by subjective than objective considerations. I am, however, interested in presenting an approach for tackling DTCA that, although it has been given secondary status in marketing communication (Areni 2002), can help move the debate on DTCA forward. Here I refer to the humanistic approach from argumentation theory. By assessing relevant argumentative features of the adverts, I intend to throw some light on the nature and quality of some of the medical information presented in the adverts in order to better ponder its potential impact on consumers' health literacy. In the following paragraphs, after some preliminary remarks on the methodology adopted, I shall first illustrate in what sense DTCA can be said to be argumentative. This point, in fact, is neither evident nor clearly pointed out in the literature. Secondly, I will discuss the underlying characteristics of the verbal arguments that appear in the ads under discussion. In so doing, my main focus will be on determining how the medical information is utilized within the arguments, and whether the selection of the medical

[5] Thus see CMAJ (2003), GAO-03-177 (2002) and NIHCM (2000).
[6] In the European Union, in 2002, there was intense lobbying of the Parliament about a proposal to allow DTCA of prescription medicines. The proposal was rejected.
[7] See Calfee (2003), Areni (2002), Jones and Garlick (2003).
[8] See, in particular, GAO-03-177 (2002).

information that appears in the ads is in any way influenced by the argumentative purposes of the ads. This investigation is only exploratory and does not claim to be exhaustive. It will focus on only three of the most the popular DTC adverts that currently appear in magazines in the USA. Yet, as will be clarified in the conclusion, alongside testing the feasibility of the proposed approach from argumentation theory, it is expected to build a basis for further more systematic explorations in the field.

1. The argumentative approach to DTCA

By focusing on the verbal texts presented in the ads, which are generally recognised as the primary place for the application of advertising strategies (Beasley & Danesi 2002),[9] for each advert under discussion I shall first reveal the structure of the arguments it contains. In particular, we must distinguish what in the ads functions as the conclusion of the argument – the standpoint to be supported – or as the premise – the proposition presented in support of the standpoint. This task requires the application of the operation of *addition* (Van Eemeren & Grootendorst 2004: chapter 5 and van Eemeren et al. 2002: chapters 4 and 5) that will lead me to point out both the explicit and the unexpressed elements of the argumentations. It is a very important operation, insofar as the argumentative features of the adverts that I am about to discuss are not in a canonical form – in other words, they are not completely explicit in their components. Technically speaking, the arguments in the adverts are presented in an enthymematic way where either premises or conclusions (or both) are often unexpressed, and thus have to be made explicit in order for the nature of the arguments themselves to be understood. I am aware that a reconstruction of the missing or unexpressed elements of an argument is always problematic, given that it can be enhanced by subjective considerations. This problem is even more serious in a case like DTCA, where the context is not particularly well defined, and does not provide many specific clues as to how the unexpressed premise should be formulated. Nevertheless, I intend to present here one of the possible formulations of DTCA's argumentation as a working hypothesis to be empirically tested in the future, with samples of real/potential consumers. For the analysis of the structure of the arguments, I shall rely on the model for

[9] At this stage of my work I will not consider the role played by the images presented in the ads. The visual aspects of the ads require, in fact, a separate analysis that I intend to conduct in future developments of this study.

schematising argumentation structure proposed by Van Eemeren et al. (2002: chapter 5). Indeed, this model allows for a systematic representation of highly complex arguments where both the expressed and unexpressed – or implicit - elements are clearly recognisable. While analysing the structure of the arguments, I will also point out the main schemes of argumentation – what in argumentation theory are known as *topoi* – adopted (Rubinelli 2003 and 2005). An assessment of the *topoi* will help analyse the nature of the contents utilized within the arguments, and make a clearer distinction between the contents that are medically related and those that rest on considerations other than medical ones.

2. Analysis

As already mentioned above, I will conduct my investigation on three of the most popular DTC adverts that currently appear in magazines in the USA. In particular, I shall analyse the advert for *Allegra* – an allergy reliever – (Image 1 in the appendix), the advert for *Botox Cosmetic* – for treating frown lines between the brows – (Images 2), and the two-page advert for *Cialix* – a medicament for erectile dysfunction (Images 3 and 4 in the appendix). Image 2, 3 and 4 were taken from the magazine *Real Simple*, a monthly publication focused on home décor and furnishing, while image 1 appeared in the magazine *Gourmet* - a monthly publication mainly aimed at women and focused on food, wine, restaurants and associated travelling.

Before entering the core of this paragraph, some words need to be said on the standpoint that I have chosen for the analysis of the argumentative patterns of the ads. In fact, in order to claim that the ads have argumentative features, it is of fundamental importance to show that there is indeed a standpoint or conclusion which is supported within the ads. By definition, argumentation is in fact a process of giving reasons in support of a certain conclusion.[10] In certain cases standpoints may be explicit and introduced by expressions such "we are of the opinion that", "I think that" and so forth. Most of the time, however, and surely in the case of DTCA, the ultimate conclusion or standpoint of the advert is not clearly expressed, but must be inferred from the wording adopted and the context. By then considering what could act as a standpoint in the three

[10] For an examination of the concept of argumentation in the field of health, see Rubinelli & Schulz (2005) and Schulz & Rubinelli (2006).

ads under investigation, I have chosen the proposition, "Ask your doctor about *medicament X*", where the expression "medicament X" refers to the specific product advertised. This proposition occurs with almost the same wording in all three adverts. My choice is motivated by the fact that the reasons for inviting consumers to ask their doctors about a certain medicament are not evident *per se*. This means that a reader who encounters this proposition in the ad will need or will look for something to justify the action s/he is invited to take. And, as shall be shown, this justification is indeed clearly recognisable in the other parts of the adverts.
Having said this, the first thing to note at an analytical level is that all three adverts under investigation contain the same basic complex structure - composed of four main arguments (A, B, C, D in Fig. 1) related to the conclusion, "Ask you doctor about medicament X". This basic complex structure can be visualised as follows:

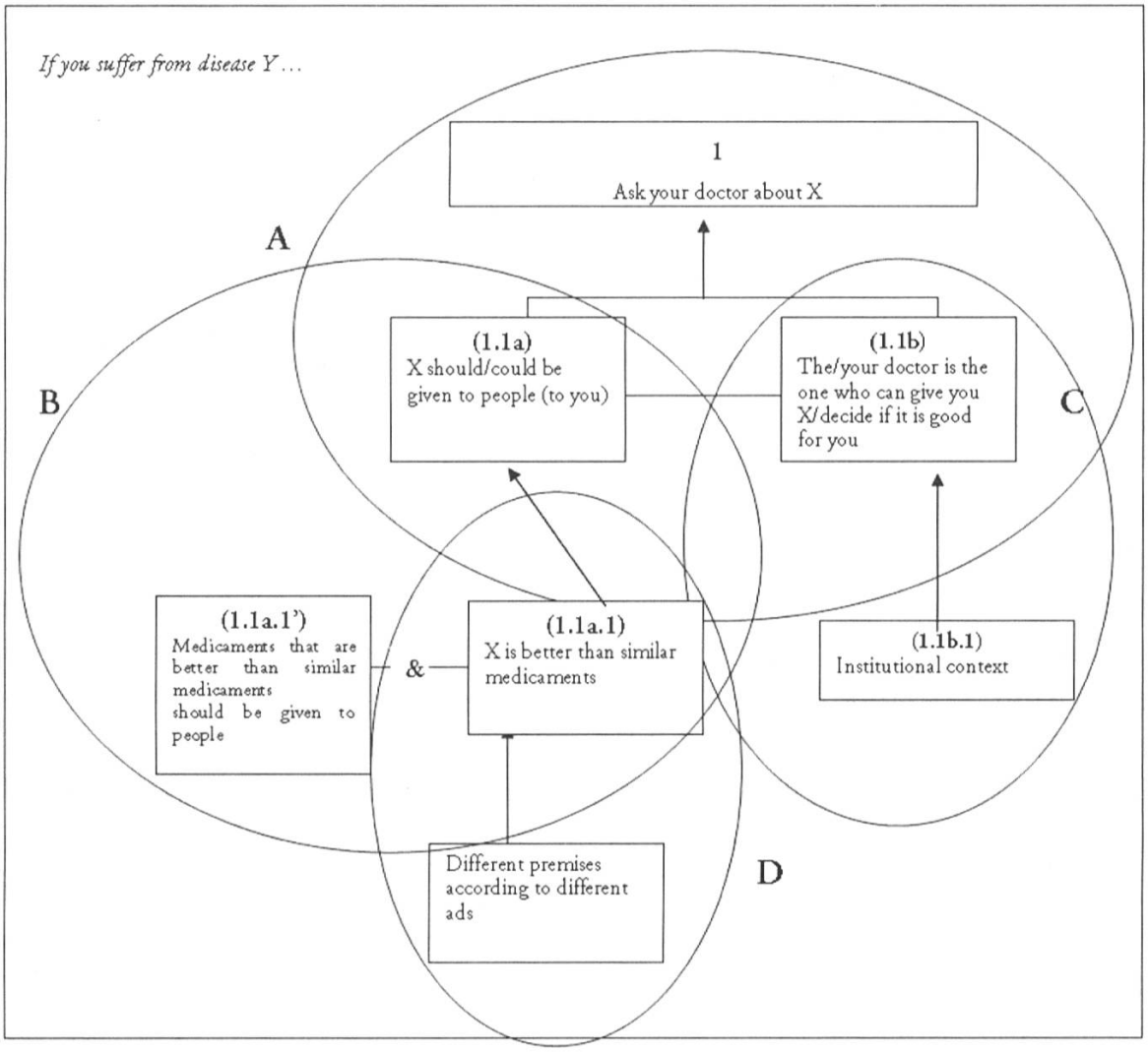

Fig. 1: Basic complex argumentative structure

Let us analyse each component of the above structure in detail:
Circle A. The premises (1.1a) and (1.1b) together form a coordinative, practically oriented, argumentation that supports as its conclusion the action of asking the doctor about the medicament in question (1). In all three ads the conclusion is explicit, while the numbers in brackets indicate that the two premises are unexpressed, but can be inferred to justify the conclusion. But since the ads, as I have already noted, offer a context that is not well defined and that provides no specific clues as to how the unexpressed premise should be formulated, nothing prevents a reader from inferring an argument of a different kind. Linguistically speaking, the conclusion, "Ask your doctor about medicament X" is ambiguous: it could be intended with meanings ranging from simply "Ask your doctor if X is right for you"[11] to the extreme "Ask your doctor to prescribe X". In this light, another possible way to make the unexpressed elements explicit would be the following:

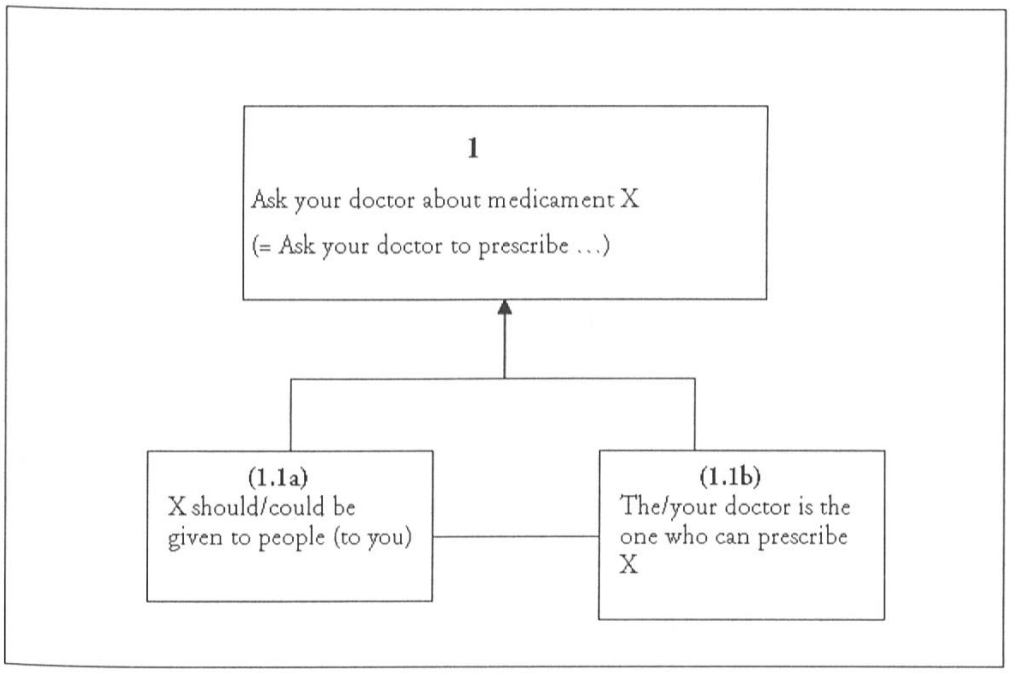

Fig. 2: One of the alternative interpretations of the contents of A

Again, going back to Figure 1, premise (1.1a) works as an unexpressed conclusion of another argument – to which I will soon turn my attention. Premise (1.1b), however, works as the unexpressed conclusion of the argument in circle C. This conclusion is implicitly supported by what in the above scheme, for reasons of space, I have briefly indicated with the expres-

[11] As indeed is the case with the *Cialis* ad, see image 4.

sion "institutional context". This expression broadly refers to the legal aspects surrounding the doctor-patient relationship and which indeed see doctors as the professionals who have the right to prescribe medication. In Aristotle's terms, this argument is an *atechnos pistis* – where the conclusion is justified by extra-technical proof found in the institutional context such as, in this case, the laws governing the medical profession.[12]

I shall now turn to the argument in circle B, in figure 1. The unexpressed premises (1.1a1') and (1.1a.1) support the unexpressed conclusion, of a practical nature, that "Medicament X should be given to people (or "You should/could be given medicament X", if we read the conclusion from the reader's individual point of view). We are here dealing with a *single argument* – consisting of two and only two premises - known in classical rhetoric as *ex genere* (from the genre)[13]: the major premise (1.1a1') generically states that "Medicaments that are better than similar ones should be given to people", while the minor premise presents the species of the genre, "medicaments that are better" and reads "X is better than similar medicaments (of course in the context of Y disease)". The two premises together lead to the attribution of the predicate of the major premise to the subject of the minor premise, "X should be given to people". By considering the quality of the contents assumed within this argumentation, the major premise contains the *endoxon* - a statement the likeliness or truth of which is generally recognised or taken for granted by the majority of people -[14] that "Treatments that are better than similar others should be given to people".[15] The minor premise "X is better than other similar medicaments" is, however, of particular importance since it is the element that cannot be taken for granted, but needs to be proved and supported with evidence. Indeed, as shall be shown, almost all the verbal texts of the three ads precisely aim to support this minor premise. Since each ad does so in a different way, I shall present three separate analyses.

a) As for argument D, in fig. 1, the *Allegra* ad presents the following structure:

[12] See Aristotle's *Rhetoric* 1355b 35 – 1356a 1.
[13] See Cicero's *Topica* 13.
[14] See Aristotle's *Topics*, book 1, 100a 18 – 101a 5.
[15] In normal conversation one would probably say "people should get the best treatment". I leave, however, the above, clumsier formulation which helps underline better the logical form of the argument.

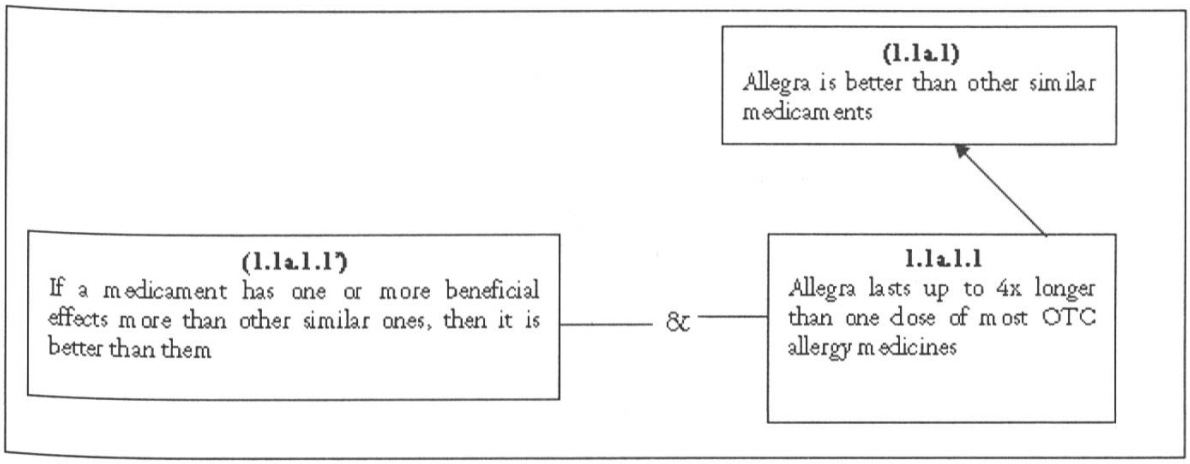

Fig. 3: Allegra's *argument D*

The argument is designed on a *single* scheme, with the explicit premise 1.1.a.1.1 and the unexpressed premise (1.1a.1.1'). Again, the unexpressed premise, which in the above scheme is the major premise of the argument, contains what is surely another *endoxon* in the medical field, namely that a qualitative evaluation of a certain medicament can be made by looking at its beneficial effects as compared to those of other similar medicaments. The argument is based on a strategy known in classical rhetoric as *topos from the more and the less.*[16] In particular, it is a strategy of argumentation based on the qualitative principle that, in its most abstract formulation, states that "things which are productive of greater good are greater".[17] The minor premise shows the additional medical-beneficial effect of *Allegra* compared to those of the other medications, namely, the fact that it lasts four times longer.

b) The *Botox Cosmetic* ad is designed around an argumentation of the following kind:

[16] See Aristotle's *Topics*, book 1, chapter 3 and Aristotle's *Rhetoric* book 1, chapter 7.
[17] See, specifically, Aristotle's *Rhetoric* 1363b 35.

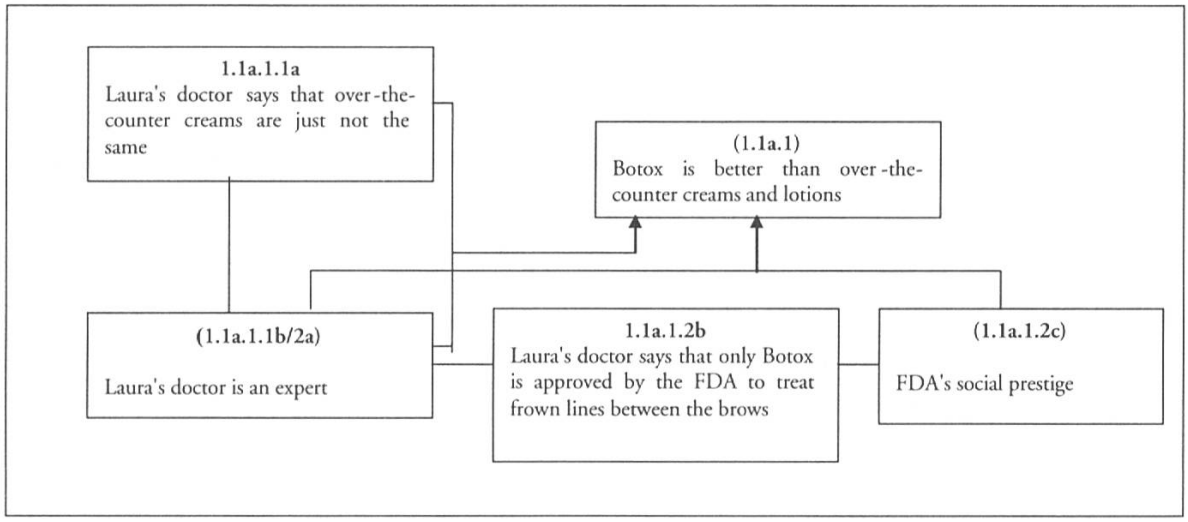

Fig. 4: Botox Cosmetic*'s argument D*

I agree with the anonymous reviewer of this paper that this argument could be alternatively interpreted as:

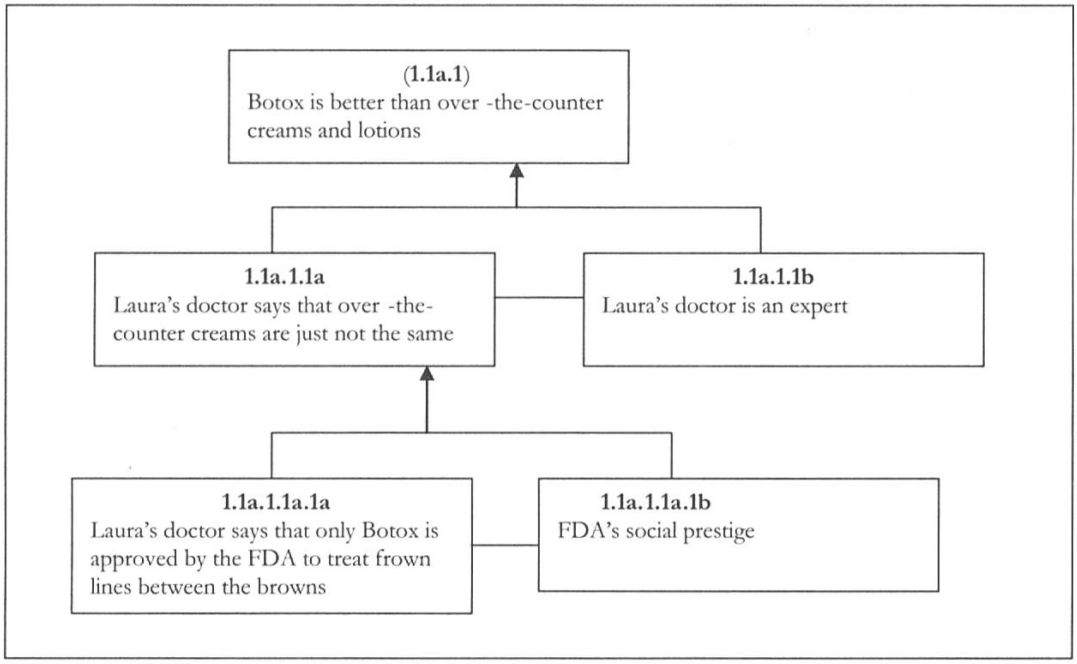

Fig. 4a: Botox Cosmetic*'s argument D*

In the argumentation of figure 4, the two coordinative arguments derive from the application of a *topos from authority* (or: appeal to authority).[18] Premise 1.1a.1.1a supports the unexpressed conclusion (1.1a.1) by presenting Laura's doctor's qualitative evaluation of the medication. The argumentative force of this premise works by presupposing, as the unex-

[18] See, in particular, Cicero's *Topica* 24 and 72-78. See also Walton (2005).

pressed premise (1.1a.1.1b), that the doctor is the expert in the medical field who knows which medications are good or bad. In this case, the doctor does not report any medical evidence on the quality of *Botox Cosmetics*, but it is her professional position which allows her to say that other over-the-counter medicine are just not the same. Premise 1.1a.1.1a again presents a testimony from Laura's doctor. Here, however, in addition to her authoritative opinion, the doctor also presents a datum on *Botox Cosmetics*, namely that it is the only prescription medication approved by the FDA to treat the problem of frown lines. If we look at the nature of this datum, it can be seen that the information about the FDA's approval is not related to the medical aspects of *Botox Cosmetic* taken as a treatment. On the contrary, it is again a sort of authoritative testimonial: given the scientific prestige of the FDA, its approval of a treatment - especially when this is the only treatment of its genre approved - is expected to imply a positive evaluation of the medical quality of the treatment itself. The FDA is indeed known in the USA as the official government agency that is responsible for ensuring that drug supply is safe and effective.

c) In turning to the *Cialis* ad, it has first to be noted that, in comparison with the other two ads, it has an additional explicit premise in argument A of figure 1.

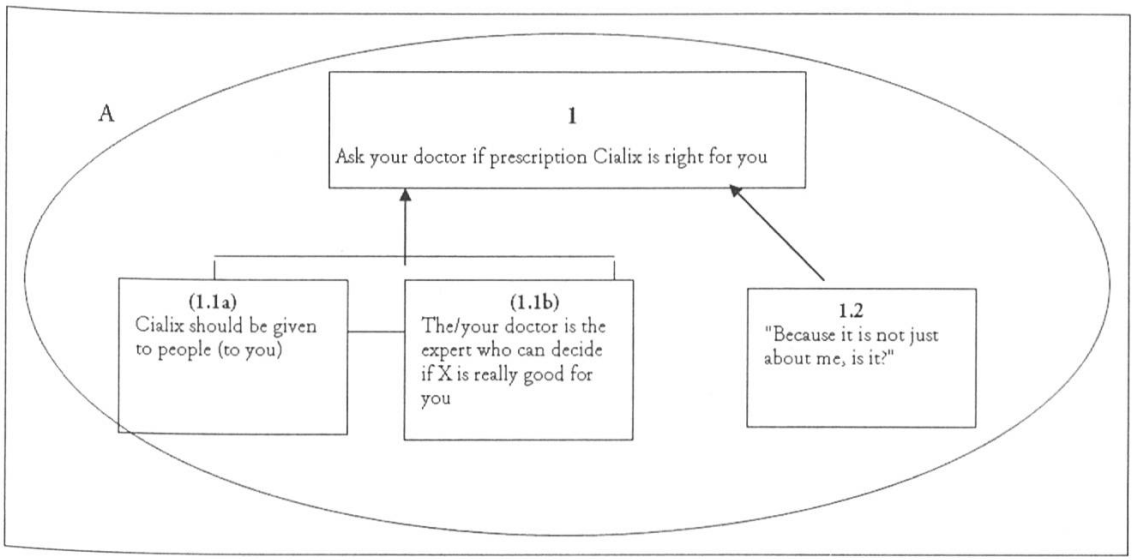

Fig. 5: Cialis' *argumentation A*

The additional premise 1.2, as the above scheme illustrates, is independent from (1.1a) and (1.1b). This premise further motivates the correctness of asking the doctor about *Cialix*, by pointing out that this is not a

question that individuals only ask for themselves. In other words, this premise states as one of its main presuppositions that a move in the direction of treating erectile dysfunction is also a sort of taking care of the partner. Here, again, we are not given any medical information on *Cialix*. The argument plays on the idea of serenity in a couple as a consequence of good sexual activity. And this idea, although not *endoxatic*, is surely a commonplace for a large portion of human society.
I now turn to *Cialix*'s argumentation D in Figure 1. Here is the diagram:

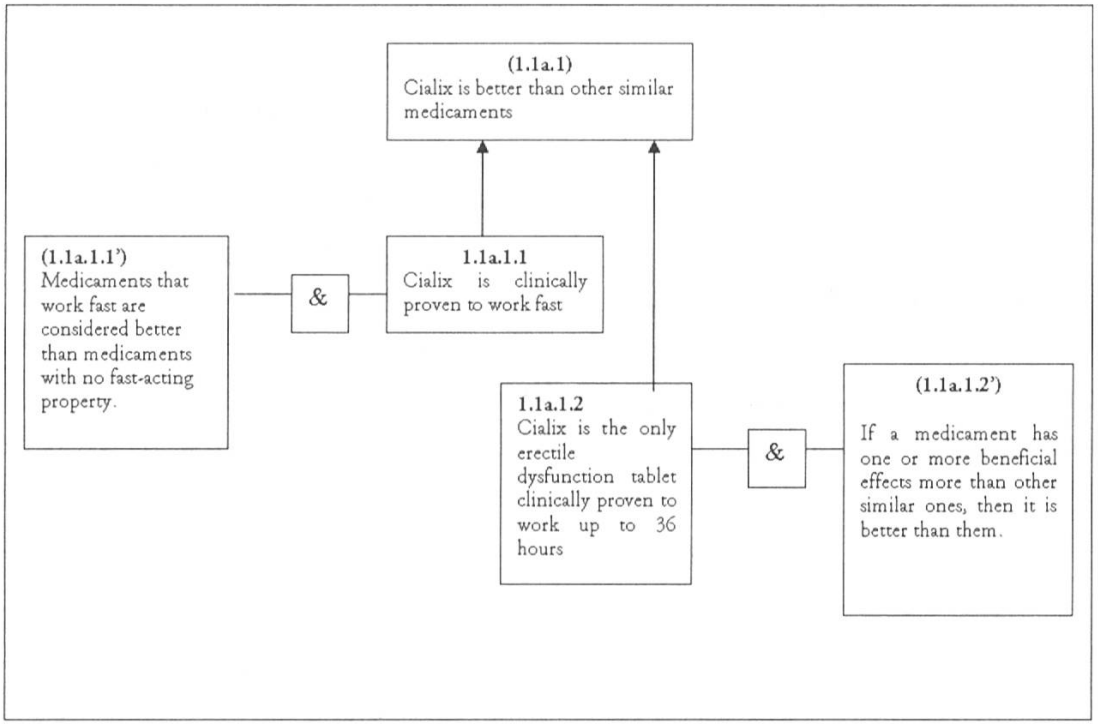

Fig. 6: Cialis' *argument D*

The *Cialis* structure above represents a multiple argumentation composed of two single arguments. In the first single argument, premise 1.1a.1.1 claims that there is clinical evidence that Cialix works fast. No specific data are given in support of this claim in the same page of the ad. This argument seems to derive from the application of a *topos ex genere* (from the genre)[19]: we can presuppose as an unexpressed major premise (1.1a1.1') the fact that medicaments which work fast are generally preferred to those with no fast-acting property – and this is surely an *endoxon* about medicaments. The minor premise presents an instance of the

[19] See page 8.

genre "treatments that work fast" and leads the reader to conclude in favour of the superior quality of *Cialix* in comparison to other similar medication. In the other single argument, there is again some medical information on *Cialix*, namely the fact that, unlike the other medicaments, it works for up to 36 hours. This lasting effect is surely a clear benefit for the target group of the ad. In this sense, the argument can be seen as an application of the *topos from the more and the less* explained above.[20] On the basis of the endoxatic principle stating that "things which are productive of greater good are greater", considering that only *Cialix* has the long-lasting effect, it can be supported as superior to the other similar medicaments.

3. Discussion

In designing the above analysis, my original question was to determine the utilization of the medical information in the argumentative sections of the ads considered. The main point which emerged is that this information only seems to come at the very bottom of the argumentative structure of the adverts, and only seems to be selected to support the superiority of a certain medicament on a more or less explicit comparative level. Most of the argumentation rests, however, on non-medical information and, in particular, on contents that are endoxatic or institutionally based, or that relate to the emotions of the target or to societal commonplaces. Now, appealing to these contents is surely perceived as quite normal in the world of advertising. Yet it is a delicate issue to consider when this appeal occurs in a context like that of this paper, where the pharmaceutical industry is perceived by promoters of DTCA as the most appropriate source of medical information on medication, and DTCA itself is perceived as the most appropriate medium for this source. A possible objection to my interpretation is that the ads also give some medical information on the side effects of the medicaments but I believe this information does not really impact on the argumentative structure of the ads. In other words, the main point that the ads seem to communicate is that a certain medicament is better than other similar medicaments (at least most of them, as *Allegra*'s ad claims) on the market. The fact of reporting that it has some side effects does not affect the expected conclusion insofar as all prescription medicaments on the market have side effects and people are generally aware of this. Moreover, although

[20] See page 9.

side effects are indicated in the ads, there seems to be a tendency to minimize them by using specific wording. Thus, for example, in *Allegra*'s ad, the section on the side effects is introduced by saying, "Side effects are low …", while in *Cialis*'s ad, there is written, "Most men weren't bothered by the side effects enough to stop taking *Cialis*". Against another possible objection that the ads explicitly invite consumers to read the patients' information – the package insert of the medicament - on the next page, it can be said that, given the small font utilized in the text and the high technicality of the contents (see as an example image 5 in the appendix), it is very unlikely that readers will actually look at it attentively. But this is a point that will surely need to be tested in the future.

Still, however, my main point about the claimed superiority of the medicaments needs to be addressed further, since it leads to a very crucial and critical question. All three ads remark on the superiority of the products recommended in comparison with other similar ones on the market. And the question that naturally comes to my mind is to see how far this superiority can actually be supported. This is indeed a very fair question to consider in a context where the issue at stake is the health literacy of consumers. To attempt to answer this question, I will sketch a qualitative evaluation of some of the medical information provided. Here, I shall try to understand whether the argumentative framework of the ads has any influence on the choice of the medical information provided. In other words, my aim is to determine whether the need to support the superiority of the product advertised leads the advertisers to select certain medical information to the detriment of other medical information which could be more useful for promoting the health literacy of consumers. In so doing, I will pay special attention to possible fallacies or manipulative processes generally (Rigotti 2006). As I have pointed out, my task here is not to give a moral evaluation of the strategies adopted in DTCA. By definition, manipulative processes are understood as those processes which in themselves are a cause of errors of judgement and decision-making. For obvious reasons, in the context of consumers' health literacy, it is fundamental to note when these occur. Yet it is not my intention to investigate their intentional or unintentional origin at this stage. Let us start with the *Allegra* advert.

Allegra 180mg is presented as a medicament that lasts four times longer – 24 hours - than one dose of most OTC allergy medicines. In the advert, three other medicaments available on the market are indicated , *Benadryl*, *Tylenol* and *Chlor Trimeton*, which, it is written, only last up to

6 hours. Now, the main point to note here is that *Allegra* 180mg is a strong medication and its long-lasting property is connected to this strength. The usual recommended starting dosage of *Allegra* – we read from the package insert – is 60 mg twice daily. And a dose of 60 mg once daily is actually the only one recommended for people with decreased renal function and with chronic idiopathic urticaria (CIU). The fact that not everybody can take *Allegra* 180 surely affects the claim about its superiority, because it is a superiority that is rather limited in its application. Moreover, nothing is said on the front page about the other fact that this dosage of *Allegra* is not recommended for people with CIU or with decreased renal function. Unless those people who suffer from CIU or have decreased renal function actually read the package insert, the invitation to ask their doctor about *Allegra* 180 would lead them to ask for a medicament that is not appropriate for them. We are here dealing with a clear *fallacy of omission*, based on a failure to present information which, on one hand, would be relevant for consumers, but on the other hand would limit the number of consumers directly addressed by the advert.

In the *Botox* advert, there are two main problematic aspects. First of all, the advert is based on the manipulative process known as *hasty generalisation* (Rigotti 2006). The fact that Laura's doctor believes in the superiority of *Botox Cosmetic* is simply an instance that, logically speaking, cannot be generalized, and cannot be representative of the class of physicians. Moreover, we do not know anything about the identity of Laura's doctor, about her background and effective knowledge or expertise. Again, it is true that the FDA has approved *Botox Cosmetic*, but this medicament has only been approved for a limited use, specifically to treat frown lines. As a matter of fact, the FDA has approved other medicaments that have wider applicability (in addition to treating frown lines, they are also prescribed for marionette lines and smile lines), like *CosmoDerm* and *Cosmo Plast.*[21] These other medicaments work on the basis of other components, namely dermal fillers made from human collagen, but treat basically the same things. Here, the fallacy consists in making a distinction among medicaments that, in the case of treatment of frown lines does not exist[22]: if we look in terms of the FDA's approval, the only distinction that can be made is that *Botox* works specifically for

[21] See www.inamed.com/products/facial/us/patient/cosmoderm/patient.html. Last retrieved March 8th 2006.

[22] I could not find a name for this fallacy in the existing theory. Here more work is needed to interpret it better or, even, to codify a new type of fallacy.

frown lines, while the other two medicaments can also be used for other purposes. Moreover, *Botox Cosmetic* has a lot of side effects for such restricted use. In particular, if we read the immunogenicity of the product in the patient information, it points out that treatments with *Botox* may result in the formation of antibodies which may reduce the effectiveness of subsequent treatments with this medicament. And the scientific factors for neutralizing antibody formation have not yet been assessed. Nothing of this sort appears in other medicaments for treating frown lines but this information also is omitted from the main pages of the *Botox* ad.

Finally, let us consider the *Cialis* ad. The advert mentions that *Cialis* should not be taken if a person takes nitrates or alpha-blockers. Only at the end of the second page of the ad is it also noted that the patient should ask her/his doctor if s/he is healthy enough for sexual activity. Now the real problem is that *Cialix* - as we read from the patient information - has not been tested for some cardiovascular diseases and can have side-effects on patients suffering from these. This information is omitted from the ad (*fallacy of omission*). In addition, there is an ongoing investigation by the FDA into a possible link between vision loss and *Cialis* (as also the famous *Viagra*).[23] Although there is currently no evidence that these drugs cause the problem, scientists recommend that anyone taking the drugs should visit their eye specialists to see if they at risk. In the advert, as we noted in the previous paragraph, there is information that plays on the psychology of the target group (namely that taking this medicament is also for the partner's sake). Here the question is: in the perspective of taking care of consumers' health literacy, is this information about the partner more important than the information on potential vision loss, so that in the advert we find the former, but the latter is omitted? Finally, almost at the end of the first page of the ad we read that "*Cialis* does not protect a man or his partner from sexually transmitted diseases, including HIV". Indeed, an article in the current issue of the *American Journal of Medicine*[24] shows that users of *Sildenafil* (a medicament that is similar to *Cialis*) engage in unprotected sex with partners of unknown HIV status from twice as often to almost six times as often as non-users. The study concludes that the labelling for PDIs (phosphodi-

[23] See http://www.usatoday.com/news/nation/2005-07-08-labels-impotencedrugs_x.htm. Last retrieved March 8th 2006.

[24] See http://www.news-medical.net/?id=10432. Last retrieved March 8th 2006.

esterase inhibitors, including *Cialis*) generally should be modified precisely to warn users of an increased risk for STDs, including HIV infection. In this case, the fallacy is not of omission - because there is a warning about sexual risks, but of emphasis or relevance (Rigotti 2006). There seems to be more emphasis (both visually and verbally speaking) – and more relevance is given - on the partner issue underlined above than on the information about the sexual risks that appear in a smaller font. In terms of consumers' health literacy, this choice of emphasis is surely questionable.

4. Conclusion

The aim of this paper was to show that an argumentative approach can help move the debate on DTCA forward. As I believe, the aim is achieved. I have illustrated the feasibility of interpreting the adverts in argumentative terms. Moreover, through an investigation of the arguments themselves, I have signalled the influence that the argumentative purposes of the ads seem to have on the selection of their contents, possibly to the detriment of the health literacy of consumers.

So much for my approach. Let me conclude by raising the most crucial question: does it work? As I pointed out in the introduction, I do not want to generalise on any aspects that concern DTCA. Indeed, the current examination has several main limitations that will need to be overcome with further research. First of all, the proposed methodology for analysing the arguments has been designed using a mix of various perspectives (from ancient and modern theories of argumentation) that have neither been treated nor theoretically justified extensively. More work is needed to refine the analytical tools for further investigations. Also, I have given one of the possible interpretations of the adverts. In order to make a definitive claim about consumers' health literacy, however, it is fundamental to conduct empirical observations on potential consumers, and to understand whether, in the first place, they perceive the advert as argumentative, and if so, what arguments they can distinguish and how they react to them. This empirical work also implies considering more adverts. In this paper I have stuck to three of the most common adverts in American magazines but the sample for further investigation will have to be grounded statistically, so as to represent the whole category of advertising.

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Appendix

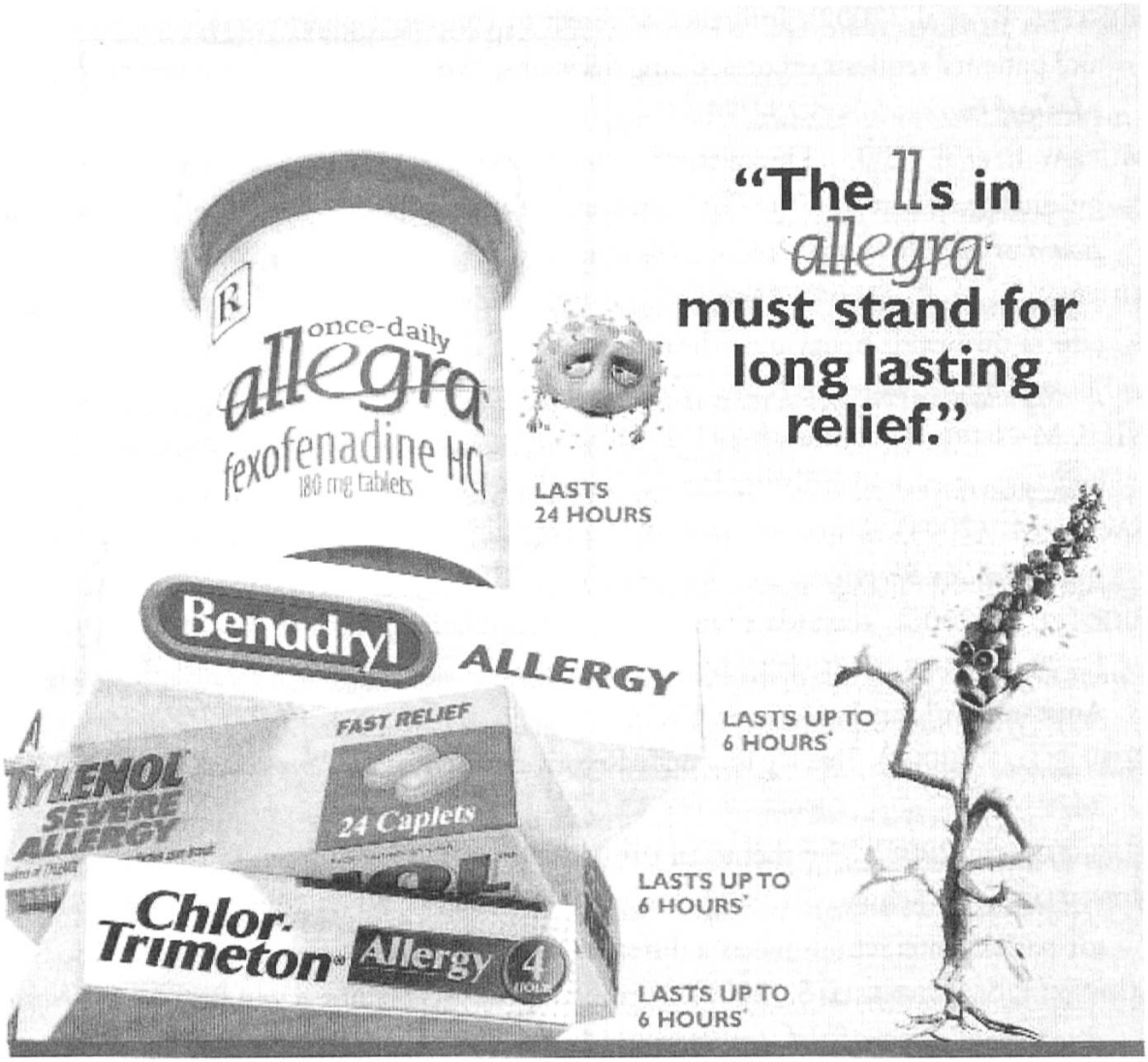


Image 1: The Advert for Allegra

"**There are over-the-counter creams and lotions. And then there's Botox® Cosmetic.**

My doctor said they're just not the same. **She said only prescription Botox® Cosmetic is approved by the FDA to treat the frown lines between your brows.** Ten minutes – a few tiny injections administered by your doctor – lasts up to four months! **That was good to know.** With all the claims some over-the-counter creams and lotions make, I was pretty confused. They pop an "X" in their name and claim they're better than Botox®. That's why I asked my doctor. You can read about Botox® Cosmetic. You can discuss it with friends. **But if you really want the facts, talk to your doctor."** Laura, Los Angeles, CA

Don't know where to find a doctor? Visit BotoxCosmetic.com for the name of an experienced physician in your area.

The one, the only™
Botox® Cosmetic.

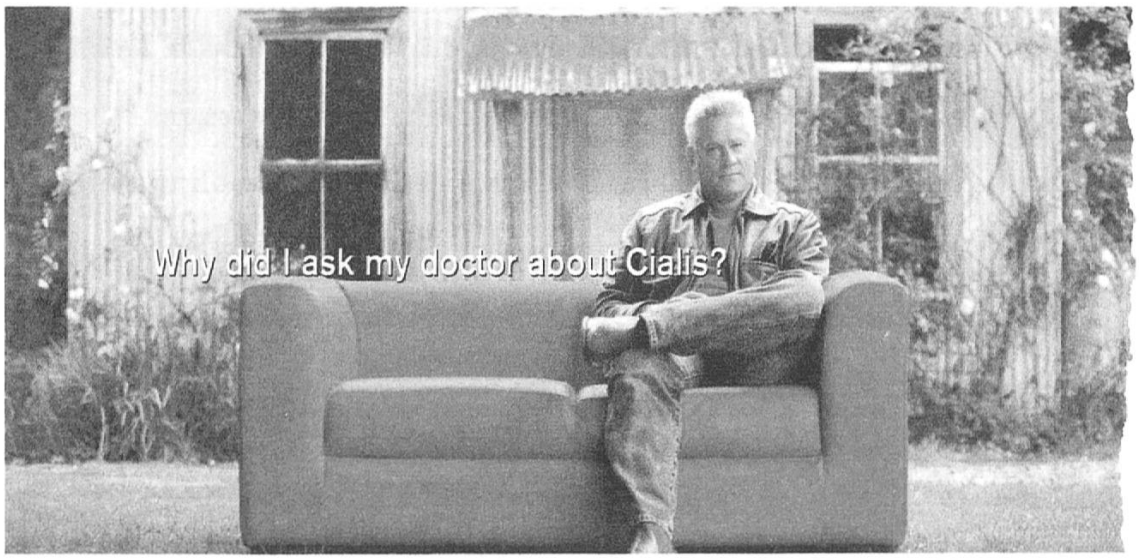
Individual results may vary. Botox® Cosmetic is approved for the temporary treatment of moderate to severe frown lines between the brows in people ages 18-65. In clinical studies, 89% of patients and 80% of doctors rated improvement as moderate or better. Ask your doctor if Botox® Cosmetic is right for you.

Important Safety Information: Patients with certain neurological disorders such as ALS, myasthenia gravis or Lambert-Eaton syndrome may be at increased risk of serious side effects. Serious allergic reactions have been rarely reported. If you think you're having an allergic reaction or other unusual symptoms such as difficulty swallowing, speaking or breathing, call your doctor immediately. The most common side effects following injection include headache, respiratory infection, flu syndrome, temporary eyelid droop and nausea.

Please see additional information on the following page.

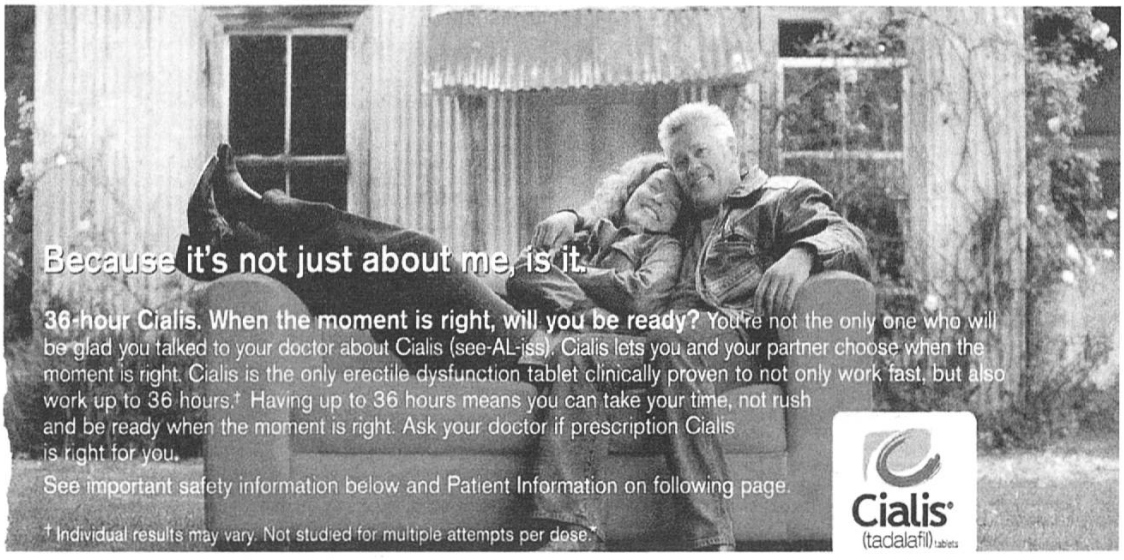
BOTOX® Cosmetic
Botulinum Toxin Type A

Image 2: The Advert for Botox Cosmetic



Cialis is not for everyone. If you take nitrates, often used for chest pain (also known as angina), or alpha-blockers (other than Flomax 0.4 mg once daily), prescribed for prostate problems or high blood pressure, do not take Cialis. Such combinations could cause a sudden, unsafe drop in blood pressure. Don't drink alcohol in excess (to a level of intoxication) with Cialis. This combination may increase your chances of getting dizzy or lowering your blood pressure. Cialis does not protect a man or his partner from sexually transmitted diseases, including HIV.

The most common side effects with Cialis were headache and upset stomach. Backache and muscle ache were



www.cialis.com
1-877-4-CIALIS

also reported, sometimes with delayed onset. Most men weren't bothered by the side effects enough to stop taking Cialis. Although a rare occurrence, men who experience an erection for more than 4 hours (priapism) should seek immediate medical attention. Discuss your medical conditions and medications with your doctor to ensure Cialis is right for you and that you are healthy enough for sexual activity.

**In clinical trials, Cialis was shown to improve, up to 36 hours after dosing, the ability of men with ED to have a single successful intercourse attempt.*

Image 3 & 4: The Advert for Cialis, *page 1 and 2 respectively*

Patient Information

Cialis® (tadalafil) tablets

Read the Patient Information about CIALIS before you start taking it and again each time you get a refill. There may be new information. You may also find it helpful to share this information with your partner. This leaflet does not take the place of talking with your doctor. You and your doctor should talk about CIALIS when you start taking it and at regular checkups. If you do not understand the information, or have questions, talk with your doctor or pharmacist.

What important information should you know about CIALIS?

CIALIS can cause your blood pressure to drop suddenly to an unsafe level if it is taken with certain other medicines. You could get dizzy, faint, or have a heart attack or stroke.

Do not take CIALIS if you:

- **take any medicines called "nitrates."**
- **use recreational drugs called "poppers" like amyl nitrate and butyl nitrate.**
- **take medicines called alpha blockers, other than Flomax® (tamsulosin HCl) 0.4 mg daily.**

(See "Who should not take CIALIS?")

Tell all your healthcare providers that you take CIALIS. If you need emergency medical care for a heart problem, it will be important for your healthcare provider to know when you last took CIALIS.

After taking a single tablet, some of the active ingredient of CIALIS remains in your body for more than 2 days. The active ingredient can remain longer if you have problems with your kidneys or liver, or you are taking certain other medications (see "Can other medications affect CIALIS?").

What is CIALIS?

CIALIS is a prescription medicine taken by mouth for the treatment of erectile dysfunction (ED) in men.

ED is a condition where the penis does not harden and expand when a man is sexually excited, or when he cannot keep an erection. A man who has trouble getting or keeping an erection should see his doctor for help if the condition bothers him. CIALIS may help a man with ED get and keep an erection when he is sexually excited.

CIALIS does not:

- cure ED
- increase a man's sexual desire
- protect a man or his partner from sexually transmitted diseases, including HIV. Speak to your doctor about ways to guard against sexually transmitted diseases.
- serve as a male form of birth control

CIALIS is only for men with ED. CIALIS is not for women or children. CIALIS must be used only under a doctor's care.

How does CIALIS work?

When a man is sexually stimulated, his body's normal physical response is to increase blood flow to his penis. This results in an erection. CIALIS helps increase blood flow to the penis and may help men with ED get and keep an erection satisfactory for sexual activity. Once a man has completed sexual activity, blood flow to his penis decreases, and his erection goes away.

Who can take CIALIS?

Talk to your doctor to decide if CIALIS is right for you.

CIALIS has been shown to be effective in men over the age of 18 years who have erectile dysfunction, including men with diabetes or who have undergone prostatectomy.

Who should not take CIALIS?

Do **not** take CIALIS if you:

- **take any medicines called "nitrates"** (See "What important information should you know about CIALIS?"). Nitrates are commonly used to treat angina. Angina is a symptom of heart disease and can cause pain in your chest, jaw, or down your arm.

  Medicines called nitrates include nitroglycerin that is found in tablets, sprays, ointments, pastes, or patches. Nitrates can also be found in other medicines such as isosorbide dinitrate or isosorbide mononitrate. Some recreational drugs called "poppers" also contain nitrates, such as amyl nitrate and butyl nitrate. Do not use CIALIS if you are using these drugs. Ask your doctor or pharmacist if you are not sure if any of your medicines are nitrates.
- **take medicines called "alpha blockers", other than Flomax® 0.4 mg daily.** Alpha blockers are sometimes prescribed for prostate problems or high blood pressure. If CIALIS is taken with alpha blockers other than Flomax® 0.4 mg daily, your blood pressure could suddenly drop to an unsafe level. You could get dizzy and faint.
- **you have been told by your healthcare provider to not have sexual activity because of health problems.** Sexual activity can put an extra strain on your heart, especially if your heart is already weak from a heart attack or heart disease.
- **are allergic to CIALIS or any of its ingredients.** The active ingredient in CIALIS is called tadalafil. See the end of this leaflet for a complete list of ingredients.

What should you discuss with your doctor before taking CIALIS?

Before taking CIALIS, tell your doctor about all your medical problems, including if you:

- **have heart problems** such as angina, heart failure, irregular heartbeats, or have had a heart attack. Ask your doctor if it is safe for you to have sexual activity.
- **have low blood pressure or** have high blood pressure that is not controlled
- **have had a stroke**
- **have liver problems**
- **have kidney problems or require dialysis**
- **have retinitis pigmentosa,** a rare genetic (runs in families) eye disease
- **have stomach ulcers**
- **have a bleeding problem**
- **have a deformed penis shape** or Peyronie's disease
- **have had an erection that lasted more than 4 hours**
- **have blood cell problems** such as sickle cell anemia, multiple myeloma, or leukemia

Can other medications affect CIALIS?

Tell your doctor about all the medicines you take including prescription and non-prescription medicines, vitamins, and herbal supplements. CIALIS and other medicines may affect each other. Always check with your doctor before starting or stopping any medicines. Especially tell your doctor if you take any of the following:

- medicines called nitrates (See "What important information should you know about CIALIS?")
- medicines called alpha blockers. These include Hytrin® (terazosin HCl), Flomax® (tamsulosin HCl), Cardura® (doxazosin mesylate), Minipress® (prazosin HCl) or Uroxatral® (alfuzosin HCl).
- ritonavir (Norvir®) or indinavir (Crixivan®)
- ketoconazole or itraconazole (such as Nizoral® or Sporanox®)
- erythromycin
- other medicines or treatments for ED

How should you take CIALIS?

Take CIALIS exactly as your doctor prescribes. CIALIS comes in different doses (5 mg, 10 mg, and 20 mg). For most men, the recommended starting dose is 10 mg. **CIALIS should be taken no more than once a day.** Some men can only take a low dose of CIALIS because of medical conditions or medicines they take. Your doctor will prescribe the dose that is right for you.

- If you have kidney problems, your doctor may start you on a lower dose of CIALIS.
- If you have kidney or liver problems or you are taking certain medications, your doctor may limit your highest dose of CIALIS to 10 mg and may also limit you to one tablet in 48 hours (2 days) or one tablet in 72 hours (3 days).

Take one CIALIS tablet before sexual activity. In some patients, the ability to have sexual activity was improved at 30 minutes after taking CIALIS when compared to a sugar pill. The ability to have sexual activity was improved up to 36 hours after taking CIALIS when compared to a sugar pill. You and your doctor should consider this in deciding when you should take CIALIS prior to sexual activity. Some form of sexual stimulation is needed for an erection to happen with CIALIS. CIALIS may be taken with or without meals.

Do not change your dose of CIALIS without talking to your doctor. Your doctor may lower your dose or raise your dose, depending on how your body reacts to CIALIS.

Do not drink alcohol to excess when taking CIALIS (for example, 5 glasses of wine or 5 shots of whiskey). When taken in excess, alcohol can increase your chances of getting a headache or getting dizzy, increasing your heart rate, or lowering your blood pressure.

If you take too much CIALIS, call your doctor or emergency room right away.

What are the possible side effects of CIALIS?

The most common side effects with CIALIS are headache, indigestion, back pain, muscle aches, flushing, and stuffy or runny nose. These side effects usually go away after a few hours. Patients who get back pain and muscle aches usually get it 12 to 24 hours after taking CIALIS. Back pain and muscle aches usually go away by themselves within 48 hours. Call your doctor if you get a side effect that bothers you or one that will not go away.

CIALIS may uncommonly cause:

- **an erection that won't go away (priapism).** If you get an erection that lasts more than 4 hours, get medical help right away. Priapism must be treated as soon as possible or lasting damage can happen to your penis including the inability to have erections.
- vision changes, such as seeing a blue tinge to objects or having difficulty telling the difference between the colors blue and green.

These are not all the side effects of CIALIS. For more information, ask your doctor or pharmacist.

How should CIALIS be stored?

- Store CIALIS at room temperature between 59° and 86°F (15° and 30°C).
- **Keep CIALIS and all medicines out of the reach of children.**

General Information about CIALIS:

Medicines are sometimes prescribed for conditions other than those described in patient information leaflets. Do not use CIALIS for a condition for which it was not prescribed. Do not give CIALIS to other people, even if they have the same symptoms that you have. It may harm them.

This leaflet summarizes the most important information about CIALIS. If you would like more information, talk with your healthcare provider. You can ask your doctor or pharmacist for information about CIALIS that is written for health professionals.

For more information you can also visit www.cialis.com, or call 1-877-242-5471.

What are the ingredients of CIALIS?

Active Ingredient: tadalafil

Inactive Ingredients: croscarmellose sodium, hydroxypropyl cellulose, hypromellose, iron oxide, lactose monohydrate, magnesium stearate, microcrystalline cellulose, sodium lauryl sulfate, talc, titanium dioxide, and triacetin.

Rx only

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Literature revised November 24, 2003

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Image 5: Cialis' *Package Insert*