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Ethics and Accessibility to Knowledge in Prescription Drug Commercials in the USA[1]

Abstract: Direct-To-Consumer Advertising (DTCA) of prescription drugs in the USA is authorized and controlled by the Food and Drug Administration (FDA) that issues guidelines and limitations to the communication of such drugs. This study investigates the discourse that renders the perception of the disease's knowledge, the accessibility to information on the condition and on the drug, and the way the roles of the physician and of the patients are conveyed in the commercials aired on TV in the USA. The diseases range from diabetes to some forms of cancer, cholesterol control, heart diseases and depression and more. The corpus consists of 72 commercials, from 2001 to 2019, advertising different drugs. The analysis is carried out, on the one hand, on the way the linguistic strategies lead promotional discourse: it intertwines and aligns with the sensitiveness of the underlying product's selling point. On the other hand, the investigation focuses, in particular, on the role of physicians, revealing interesting aspects in terms of an implicit loss of their scientific independence in the treatment of the diagnosis.

Keywords: *doctor/patient relationship*, *DTCA*, *ethics in advertising*, *LSP*, *medical discourse*

1. Introduction

This study aims at investigating Direct-To-Consumer Advertising of prescription drugs (DTCA) in the USA, to detect linguistic elements that may demonstrate a shift both in the patients' and doctors' roles and consequently in the balance of power between the two actors in their ordinary life.

'Ask your doctor if *XYZ* is right for you' is a fairly unknown phrase in most of the world, but it is one that most Americans know by heart. This, or some variation of it, is commonly used in DTCA, a relatively new phenomenon born during the 1980s.[2] Nowadays, 80 of these commercials (on average) run on American television every hour of every day.[3]

DTC ads and commercials are divided into three categories:

- 'Health or help seeking'*:* they 'contain information about a disease or condition' and recommend talking to a doctor, without mentioning any specific drug.
- 'Reminder'*:* they 'contain the name of a drug and other limited information', without any

[1] This study contributes to the national research programme ?Knowledge Dissemination across media in English: continuity and change in discourse strategies, ideologies, and epistemologies?, financed by the Italian Ministry for the University (nr.2015TJ8ZAS).

[2] Michael S. Wilkes et al., "Direct-To-Consumer Prescription Drug Advertising: Trends, Impact, and Implications", *Health Affairs*, 19.2 (2000), 110-128.

[3] Eric Palmer, "Top 10 DTC Pharma Advertisers", *FiercePharma* (2013), available at *www.fiercepharma.com*.

mention of its use, safety or effectiveness.

- 'Product specific'*:* they mention both the drug name and its therapeutic use, with information about its safety and effectiveness. This is the most common type of DTCA.[4]

They cover a wide range of "clinical conditions, from relatively minor ones", like hair loss,[5] to more serious problems, such as cancer and cardiology issues.[6] DTCA is permitted in only two countries: the United States of America and New Zealand,[7] and remains a controversial topic. Its benefits are still very much questioned, to the extent that in 2015 the American Medical Association called for a ban.[8] However, this solution seems unlikely, as the Supreme Court actually considers advertising a form of commercial speech, which falls under the First Amendment's protection of freedom of speech.[9]

2. Theoretical background

As DTCA still remains a divisive matter, literature has primarily focused on its positive and negative aspects. Arguments in favor of DTCA are:

- Educational potential

Proponents of DTCA believe advertising could be a source of information about "medical diseases and their treatment".[10] However, content analysis shows that DTCA mostly emphasizes the benefits and might be difficult to understand for a person "with average health literacy"[11] and while it might contain information about symptoms, it rarely does about the causes and prevalence of the disease or the drug's mechanism.[12]

- It improves the quality of care

[4] Lynette R. Bradley and Julie M. Zito, "Direct-to-Consumer Prescription Drug Advertising", *Medical Care,* 35.1 (1997), 86-92.
[5] Ibid., 86.
[6] Joanne Kaufman, "Think You're Seeing More Drug Ads on TV? You Are, and Here's Why", *The New York Times* (December 24, 2017), *www.nytimes.com*.
[7] Paul Biegler, "Filling in the Gaps: Priming and the Ethics of Pharmaceutical Advertising", *Kennedy Institute of Ethics Journal*, 25.2 (2015), 193-230.
[8] Janelle Applequist and Jennifer Ball, "An Updated Analysis of Direct-to-Consumer Television Advertisements for Prescription Drugs", *The Annals of Family Medicine*, 16 (2018), 211-216.
[9] Lowell E. Schnipper, "Direct-to-consumer of Cancer Treatments", *Clinical Advances in Hematology & Oncology*, 15.10 (2017), 748-750. Miriam Schuchman, "Drug Risks and Free Speech: Can Congress Ban Consumer Drug Ads?", *New England Journal of Medicine*, 356.22 (2007), 2236-2239.
[10] Biegler, *Filling in the Gaps*, 195.
[11] Dominick Frosch et al., "A Decade of Controversy: Balancing Policy with Evidence in the Regulation of Prescription Drug Advertising", *American Journal of Public Health*, 100.1 (2010), 24-32.
[12] Ibid., 25.

Some surveys have shown that it can not only prompt people to contact doctors, but also have a better, more thoughtful conversation with them.[13] It can also help remove the stigma from some conditions, like ED (Erectile Dysfunction) or depression.[14]

- It promotes adherence to prescribed regiments

In this case, the ad acts like a reminder for the condition and treatment, while strengthening the physician's recommendation in the eye of the patient and therefore his compliance to it.[15]

- It encourages competition and lower prices

Although some scholars suggest that advertising might increase pharmaceutical prices, there is also the possibility that it would reduce them, the reasoning being that these are guided by demand and not advertising costs (although evidence is unclear), and that a more competitive market usually leads to lower prices.[16]

Arguments against DTCA are:

- It overemphasizes the benefits

From 1997 to 2006, 84% of the regulatory letters issued by the FDA regarding DTCA had been about downplaying the side effects, exaggerating the effectiveness of the drug or both.[17] In DTCA, the risks are usually "buried in the narrative", as the headings are reserved for benefits.[18] Risk information also often misses "quantitative data", which might help the listener to better assess the side-effects of the drug.[19] Commercials are also guilty of presenting a mismatch between the images shown (e.g. happy or relaxed people) and the side effects' recitation, and "research has shown that when the visual and the verbal messages are discordant, the visual tend to predominate".[20]

- It promotes the use of new drugs before the risks are known

In a content analysis reported by Wilkes, Bell and Kravitz,[21] 40% of the ads examined used claims of "innovativeness" in the pharmaceutical landscape, but new does not always equal better, as the "safety profiles" of new drugs are generally less known.

[13] C. Lee Ventola, "Direct-to-consumer Pharmaceutical Advertising: Therapeutic or Toxic?", *Journal of Health Communication*, 21.2 (2011), 228-239; Richard Weinmeyer, "Direct-to-consumer Advertising of Drugs", *Journal of Ethics*, 15.11 (2013), 954-959.
[14] Ventola, *Direct-to-consumer*, 673.
[15] Ibid., 673.
[16] Ibid.
[17] Julie M Donohue et al., "A Decade of Direct-to-Consumer Advertising of Prescription Drugs", *New England Journal of Medicine*, 357.7 (2007), 673-81.
[18] Wilkes, *Direct-to-consumer*, 116.
[19] Ventola, *Direct-to-consumer*, 674.
[20] Ibid., 674.
[21] Wilkes, *Direct-to-consumer* 116.

- Overmedication and manufactured diseases

In a content analysis of DTCA, none of the sample ads mentioned lifestyle changes as an alternative to medication, and when diet, exercise or otherwise healthy lifestyle choices were presented as beneficial to the patient, it was always in combination with the drug.[22] As a matter of fact, critics say that advertising might go as far as to push what constitutes an illness in order to widen the market.[23]

- It is not sufficiently regulated

Some critics believe that the rules "are too relaxed"[24] and that the control system is slow and inefficient, being the FDA critically understaffed and underfunded.[25]

- It increases costs

DTCA advocates believe that it may reduce costs for patients who, thanks to pharmaceutical management, could avoid paying expensive surgery later; as this claim remains unverified,[26] there is some concern that it encourages, instead, the use of expensive medications, which do not have any specific improvements comparing to "older and cheaper" drugs.[27]

Great emphasis has also been put on the consumer perspective, and "the literature provides some evidence that consumers are increasingly aware" of DTCA,[28] especially if they are taking prescription drugs, believe their health care plan would cover the cost, hold a positive view of DTCA, have a greater exposure to magazines or are frequent viewers of TV.[29] In a 1999 study, Bell, Kravitz and Wilkes found that attention to drug prescription is guided by 'subjective utility' as it was higher for the ads that covered a condition experienced by the consumer.[30] Therefore, it can be said that DTCA awareness is led more "by specific medical concerns than by general health worries".[31] When in poor health, consumers are not only more aware of the ads, but they also have a more positive opinion of their utility in their health decision making process.[32] In some surveys, consumers stated to have achieved a better understanding of treatments and conditions thanks to DTCA and that they did use this information to make their medical decisions.[33] As a matter of fact, the 'primary justification' for

[22] Frosch et al., "Creating Demand for Prescription Drugs: A Content Analysis of Television Direct-to-Consumer Advertising", *Annals of Family Medicine*, 5.1 (2007), 6-13.
[23] Frosch, *A Decade of Controversy*, 27.
[24] Ventola, *Direct-to-consumer*, 681.
[25] Donohue, *A Decade of Direct-to-Consumer*, 679.
[26] Ventola, *Direct-to-consumer* 673.
[27] Ibid., 682.
[28] Aparna Deshpande et al., "Direct-to-Consumer Advertising and Its Utility in Health Care Decision Making: A Consumer Perspective", *Journal of Health Communication*, Vol. 9 (2004), 499–513.
[29] Robert A. Bell et al., "Direct-to-Consumer Prescription Drug Advertising and the Public," *Journal of General Internal Medicine* 14.11 (1999), 651-657.
[30] Ibid., 656.
[31] Ibid., 654.
[32] Deshpande, *Direct-to-Consumer Advertising*, 511.
[33] Frosch, *A Decade Of Controversy*, 25.

DTCA is always the consumers' need for more information, in order to assume "greater responsibility over their health".[34]

However, a study by Faerber and Kreling[35] that focused on commercials for prescription and OTC drugs that aired between 2008 and 2010, found that even if the overall frequency of objectively false claims was low, over half of the claims (both in OTC and prescription drugs ads) were potentially misleading, i.e. "true when taken literally" but that may be still confusing for the consumer because of "omissions, exaggerations, opinions and meaningless associations".[36] Moreover, it has been questioned whether consumers understand and interpret correctly the information contained in DTCA, with many noticing the contradictory nature of having a class of medications that needs to be prescribed by a qualified and trained expert, only to advertise the same drugs to a public lacking those very skills.[37] A false or incorrect belief might, in fact, come not only by a misleading ad but also from a miscomprehension on the part of the consumer, with the further possibility of an overlap between the two.[38]

Another element to take into consideration is the fairly common use of "emotional and persuasive appeals" in these ads.[39] The problem with these appeals is that the consumer might ignore benefit and risk information and ask for a treatment for inappropriate reasons such as fear, anticipated happiness in case of product use and anticipated regret in the opposite case.[40] In their study, Frosch et al. found that almost the totality (95%) of their sample exploited a positive appeal, by showing characters living a happy life after using the product and 69% of the ads used a negative appeal, by showing characters "in a fearful state" before using the drug.[41]

As a matter of fact, a study by Biegler and Vargas[42] has shown that the use of pleasant music and imagery in drug's advertising encourages not only positive feelings toward the promoted drug and a greater belief in its safety and effectiveness but also a "greater intention to request the drug from a physician".[43] This is the result of an effect called 'evaluative conditioning', which occurs when pairing an object with a stimulus 'of positive valance',[44] thus enabling the "transfer" of positive feelings from the stimulus to the object.[45] 'Evaluative conditioning', therefore, activated through imagery, leads to

[34] Joshua Perry et al., "Direct-to-Consumer Drug Advertisements and the Informed Patient: A Legal, Ethical, and Content Analysis", *American Business Law Journal*, 50.4 (2013), 729-778.
[35] Adrienna Faerber and David. Kreling, "Content Analysis of False and Misleading Claims in Television Advertising for Prescription and Nonprescription Drugs", *Journal of General Internal Medicine*, 29.1 (2013), 110-118.
[36] Ibid., 116.
[37] Wilkes et al., *Direct-to-consumer*, 116.
[38] Louis A. Morris et al., "Miscomprehension Rates for Prescription Drug Advertisements", *Current Issues and Research in Advertising*, 9.1-2 (1986), 93-117.
[39] Faerber and Kreling, *Content Analysis,* 111.
[40] Frosch et al., *Creating Demand*, 10.
[41] Ibid., 9.
[42] Paul Biegler and Patrick Vargas, "Feeling Is Believing: Evaluative Conditioning and the Ethics of Pharmaceutical Advertising", *Journal of Bioethical Inquiry,* 13 (2016), 271-279.
[43] Ibid., 274.
[44] Ibid., 272.
[45] Biegler, *Filling in the Gaps*, 204.

foster beliefs about the drug that are generated by said imagery and not by its "actual properties", likely impacting "the autonomy" in the consumer's decision.[46]

According to Biegler advertising endangers the autonomous medical decision-making process, because it acts like a "prime",[47] which is "an environmental cue that makes associate concepts, behaviors, and goals more psychologically accessible to people, influencing their response to a subsequent related stimulus". [48] In particular, pharmaceutical advertising works as a prime by representing the drug as "effective",[49] by eliciting "positive affect" through the already cited "evaluative conditioning"[50] and by representing taking the drug as a "social norm", therefore exploiting the "tendency to mimic others".[51] Priming pushes people to pursue the drug's prescription, sometimes "doggedly".[52] However, because people are unaware of the priming effect, they tend to rationalize their tendency with an unjustified favorable belief about the drugs' effectiveness and safety, [53] belief that, when taken into account while making a decision, undermines the autonomy of the whole process.[54]

Despite reservations about the role played by DTCA in creating informed consumers,[55] these latter tend to consider it positively.[56] This optimistic opinion, however, may be influenced by a misplaced faith in the regulatory system of DTCA, as participants in the survey of Bell, Kravitz and Wilkes 1999's study show. Approximately, 50% believed that ads needed to be pre-approved by the FDA, respectively 21% and 43% believed that only "extremely effective" or "completely safe" drugs could be advertised, and 22% believed that advertising of drugs with serious side effects had already been banned. All of these statements are, however, false.[57] In general, consumers hold a more positive view of DTCA, in terms of value provided, than physicians.[58] Physicians' opinions tend more toward the negative, because DTCA doesn't give "enough information on cost, alternative treatment options, or adverse effects".[59]

However, DTCA is effective in generating requests for an advertised drug's prescription.[60] Surveys have also indicated that DTCA prompted patients to ask for a specific treatment, which was, in many cases, unsuited for their condition.[61] In these cases, the physician might have to re-contextualize what people have learned from the ad as promotion and lower their expectations, which could not only

[46] Biegler and Vargas, *Feeling Is Believing,* 276.
[47] Biegler *Filling in the Gaps,* 220.
[48] Ibid., 196.
[49] Ibid., 200.
[50] Ibid., 204.
[51] Ibid., 205-206.
[52] Ibid., 202.
[53] Ibid., 213.
[54] Ibid., 220.
[55] Perry et al., *Direct-to-Consumer,* 777.
[56] Deshpande et al., *Direct-to-Consumer Advertising,* 511.
[57] Bell et al., *Direct-to-consumer,* 654-655.
[58] Deshpande et al, *Direct-to-Consumer Advertising*, 500.
[59] Andrew R. Robinson et al., "Direct-to-Consumer Pharmaceutical Advertising: Physician and Public Opinion and Potential Effects on the Physician-Patient Relationship", *Archives of Internal Medicine*, 164.4 (2004), 427-432.
[60] Ibid., 428.
[61] Kevin M. Fain and G. Caleb Alexander, "Mind the Gap: Understanding the Effects of Pharmaceutical Direct-to-Consumer Advertising", *Medical Care*, 52.4 (2014), 291-293.

divert the focus from a meaningful discussion about the condition and the range of available treatments,[62] but also be a draining and 'time-consuming' experience for the doctor.[63] This is particularly true in the oncology field, where doctors are almost always informed about all the available treatments, and the DTCA-prompted discussion might simply lead to the patient's disappointment.[64]

However, patients' requests are often met by doctors, despite "reservations".[65] As a matter of fact, there is some evidence supporting the idea that physicians feel pressured to prescribe a specific drug, when requested by a patient.[66] Opponents of DTCA are worried that this pressure could lead to prescriptions of new drugs, whose risks and benefits are less known.[67] In addition, a few studies have actually revealed that physicians are more likely to prescribe a questionable or inappropriate drug to DTCA-prompted patients.[68] As a matter of fact, "patient demand is the most commonly offered physician explanation for inappropriate prescribing".[69]

Doctors are somewhat reluctant to deny DTCA-prompted patients' requests for a certain drug, as they are fearful of losing them as their patients.[70] As a matter of fact, in a survey, participants were asked what their reaction would be if their doctor refused to prescribed the requested (advertised) drug, 24% thought they would try to obtain the prescription from another doctor, and 15% said they would switch to another doctor.[71]

DTCA opponents believe that pharmaceutical industries have found in the consumer "armed with information from DTC ads" the perfect tool for pressuring physicians[72] and, in fact, since the late 1980s pharmaceutical companies have begun to consider DTCA "as an integral part of their marketing strategy".[73] Before that, most of their marketing efforts were directed towards physicians[74]. However, since the FDA loosened its restrictions on DTCA in 1997, there has been a "dramatic upsurge",[75] a shift "from this traditional 'push' strategy to a more aggressive 'pull' strategy",[76] resulting in greater attention and financial investment in advertising directed at consumers.[77]

[62] Wilkes et al., *Direct-to-consumer*, 121.
[63] Ventola, *Direct-to-consumer,* 681.
[64] Schnipper, *Direct-to-consumer advertising*, 748.
[65] Robinson et al., *Direct-to-Consumer Pharmaceutical,* 428.
[66] Fain and Alexander, *Mind the Gap*, 293.
[67] Wilkes et al., *Direct-to-consumer*, 120.
[68] Weinmeyer, *Direct-to-consumer advertising of drugs*, 957.
[69] Robinson et al., *Direct-to-Consumer Pharmaceutical,* 431.
[70] R. Sthephen Parker and Charles E. Pettijohn, "Ethical Considerations in the Use of Direct-To-Consumer Advertising and Pharmaceutical Promotions: The Impact on Pharmaceutical Sales and Physicians", *Journal of Business Ethics*, 48 (2003), 279-290.
[71] Wilkes et al., *Direct-to-consumer,* 119.
[72] Richard L. Kravitz, "Direct-to-Consumer Advertising of Prescription Drugs: Implications for the Patient-Physician Relationship", *JAMA*, 284.17 (2000), 2244.
[73] Julie M. Donohue, "A History of Drug Advertising: The Evolving Roles Of Consumers And Consumer Protection", *The Milbank Quarterly*, 84.4 (2006), 659-99.
[74] Ibid., 679.
[75] Biegler, *Filling in the Gaps,* 194.
[76] Parker and Pettijohn, *Ethical Considerations,* 280.
[77] Robinson et al., *Direct-to-Consumer Pharmaceutical*. 427.

Donohue argues that the patients and consumers' rights movements were a necessary condition for this development.[78] Both these movements demanded more information, respectively from health professionals and health insurance companies.[79] Therefore, as the cultural and 'regulatory climate' moved toward empowering consumers and patients to make decisions about their health care, the incredibly misbalanced relationship between doctors and patients that existed during the middle decades of the twentieth century began to change.[80] As a matter of fact, after World War II, physicians were well-respected authority figures and patients were seen as "incapable of making medical decisions" and completely dependent on their physicians, who regularly withheld information about their condition and treatment.[81]

In opposition, the idea of a more autonomous and "empowered" patient started to catch on.[82] With the development and diffusion of technologies such as the Internet allowing for the circulation of information,[83] patients were able to rise from the passive and oblivious role – where the Hippocratic view of "the doctor-patient relationship" had casted them – to the role of "partners" of the physician in the decisions regarding their health.[84]

There was no place for DTCA in a "model of health care" focused on the physician as a keeper of all medical knowledge and that relegates the patient to the passive role of just accepting the doctor's diagnosis. Consequently, in this case, all the marketing efforts of the pharmaceutical companies are to be directed toward the physicians, "because they control all access to patients".[85] However, when the "model of health-care" has at its center the patient, who consequently needs to be informed "on the types of medical products and treatments that are available", then it makes sense for drug companies to "market directly to the consumer".[86]

As a matter of fact, for DTCA advocates, Direct-To-Consumer advertising is a "natural outgrowth" of the changes in the physician-patient relationship, because they consider it an educational platform.[87] From their point of view, it contributes to create an informed patient that doesn't rely exclusively on the information provided by the doctors.[88] Receiving more information enables the patients to reclaim a more active and "autonomous" role in "their own medical treatment decisions".[89]

This analysis of the content of DTCA necessarily intertwines with the theoretical background of the discourse of advertising and LSP (Language for special purposes). Both of them can be recognized by a number of characteristics that can be effectively found in the corpus analyzed. The discourse of advertising implies not only promotional discourse but also the function to "inform, misinform, worry

[78] Donohue, *A History of Drug Advertising,* 662.
[79] Ibid., 662.
[80] Wilkes et al., *Direct-to-consumer,* 113.
[81] Donohue, *A History of Drug Advertising,* 669.
[82] Perry et al., *Direct-to-Consumer,* 740.
[83] Reshma Jagsi, "Conflicts of Interest and the Physician-Patient Relationship in the Era of Direct-to-Patient Advertising", *Journal of Clinical Oncology*, 25.7 (2007), 902-905.
[84] Perry et al., *Direct-to-Consumer,* 740.
[85] Parker and Pettijohn, *Ethical Considerations,* 282.
[86] Ibid., 282.
[87] Perry et al., *Direct-to-Consumer,* 758.
[88] Weinmeyer, *Direct-to-consumer advertising of drugs*, 956.
[89] Perry et al., *Direct-to-Consumer,* 758.

or warn".[90] The commercials analyzed here seem to fit perfectly in this Cook's definition: they act as informative tools, too, for patients, warn them for side effects and sometimes create worries or awareness that may turn into more information on the drug and on the treatment. In this modern era, advertising conveys models and cultural stimulation, and does not promote a single product *tout court*: advertising aims to promise better life conditions, better health and better social status. The focus of promotion shifts from the product to the expected benefits coming from its purchase.[91] Patients may perform also the function of link between the message and the doctor, as is clarified in the following chapters. The commercials investigated are not only examples of advertising types and discourse, but their content can be included under the umbrella of specialized discourse, medical discourse for instance.

Gotti gives a number of characteristics[92] of specialized discourse. A discourse community is fundamental to its spreading. Physicians and patients can represent a community altogether, where patients limit themselves to report the information or, possibly, are required to acquire more information elsewhere, too. Physicians should instead perform the role of informed scientists in the dual relationship. The specialized medical discourse here, shows some of the characteristics given by Gotti: conciseness, that in medical discourse appears as abbreviations and acronyms;[93] opacity, depending on the speaker's use of specialized terminology due to his/her profession[94] and willingness to be deliberately opaque; lack of emotion in written texts, unless specialized language is used in advertising: in this case, emotion comes out and becomes a part of the communication message;[95] monoreferentiality, as the reference to any specialized term is clearly directed to a single concept or meaning.[96]

3. Research aim

This study investigates how linguistic elements may shape the communicative strategies in DTCA in the USA. In particular, it focuses both on the degree of accessibility of patients to relevant medical information, via specialized medical discourse and on the degree of understanding and control over the message conveyed by the commercials. The following step of the analysis is to investigate the possible change in the balance of power in the patient/physician relationship, whether a growth in patients' autonomy in managing their disease treatment and informative process corresponds to a loss in physicians' professional independence.

4. The corpus

[90] Guy Cook, *The discourse of advertising* (London and New York: Routledge, 1992), 5-9.
[91] Hosney M. El-Daly, "Toward an Understanding of the Discourse of Advertising: Review of Research, and Special Reference to the Egyptian Media", *Global Journal of HUMAN SOCIAL SCIENCE*, 12.4 Version 1.0 (2012), 79-93.
[92] Maurizio Gotti, *Investigating Specialized Discourse* (Bern: Peter Lang, 2005), 33-49.
[93] Ibid., 40; Olga Kuzmina et al., "Problems of the English Abbreviations in Medical Translation", *Procedia – Social and Behavioral Sciences*, 199 (2015), 548-554.
[94] Gotti, *Investigating Specialized Discourse*, 25.
[95] Ibid., 36.
[96] Ibid., 33.

The corpus consists of 72 commercials of 65 different prescription drugs (7 of them are broadcasted in two different campaigns). The time span goes from 2001 to 2019. The main parameters, which gradually narrowed the corpus, were: 1 – prescription drugs 2 – aired in the USA 3 – a significant length, higher than 30 sec.4 – easy accessibility to audience, which turned out to be their presence on the main video channel, YouTube 5 – presence of text and spoken part. The videos presented a textual component along with an animated and spoken component. They mainly performed patients in their ordinary lives, who spoke and told their experience; the great majority of the commercials investigated presented a voiceover (both male and female) that described the usage, characteristics and warnings of the drug. The prescription drugs that are included in the investigated corpus are the following (Table 1):

Abilify	Brilinta	Eliquis	Intermezzo	Lynparza	Paxil	Rozerem	Trulicity
Advair	Celebrex	Emgality	Invokana	**Lyrica**	Plavix	Singulair	Truvada
Aimovig	Cialis	**Entresto**	Januvia	**Lyrica**	Pradaxa	Spiriva Resmimat	Valtrex
Ambien CR	Contrave	**Entresto**	**Keytruda**	Mavyret	Pristiq	**Stelara**	Verzenio
Anoro Ellipta	**Crestor**	**Entyvio**	**Keytruda**	Mirapex	Prolia	**Stelara**	VESIcare
Avandia	**Crestor**	**Entyvio**	Lamisil	Nasonex	**Repatha**	Strattera	Vytorin
Boniva	Cymbalta	Epclusa	Latuda	Nexium	**Repatha**	Symbicort	Wellbutrin XL
Breo Ellipta	Eliquis	Humira	Levitra	Opdivo	Rexulti	Toviaz	Zoloft

Table 1: drugs advertised in the corpus of commercials.

The drugs advertised in the corpus represent the treatment for a number of conditions and diseases that include, among a wide range, arthritis, depression, diabetes, high cholesterol, heart attacks, erectile dysfunction, Crohn's disease, fibromyalgia, asthma, osteoporosis and also ovarian cancer and Non-small cell lung cancer.

5. Methodology

The commercials were transcribed from their spoken part, and the textual part was reported along with the transcript in a machine readable format. The file was then analyzed at two levels: a quantitative level, which investigated mainly the linguistic characteristics (presence of modality, of specialized medical language, abbreviations, paralanguage, etc.) and at a qualitative level, investigating the corpus to outline the role of physicians, and the possible implicit loss of their scientific independence.

The linguistic quantitative investigation was carried out at two sub-levels: a first analysis was carried out on the text of the transcribed file of 21,755 words. This analysis was aimed at studying the

presence and the nature of linguistic elements that help decode the strategic communication of the commercials. The second analysis was carried out on the frequency of the variables identified. This latter investigation represented the basis for the qualitative analysis that followed right after.

5.1 *Quantitative analysis*

Analysis of the text

The document counts 21,755 words, counted by KHCoder, a professional software used for text mining and analysis. The list of the first 40 most common occurrences was sorted, eliminating some stop words like conjunctions and prepositions. The list follows in Table 2.

words	count	type	Proportion (relative frequency)
doctor	247	noun	0,011354
May	232	verb	0,010664
blood	105	noun	0,004826
problem	100	noun	0,004597
include	90	verb	0,004137
Risk	88	noun	0,004045
effect	82	noun	0,003769
heart	82	noun	0,003769
medicine	82	noun	0,003769
prescription	82	noun	0,003769
Help	79	Verb	0,003631
Tell	76	Verb	0,003493
Ask	74	Verb	0,003402
Side	72	adjective	0,00331
symptom	69	Noun	0,003172
Pain	67	Noun	0,00308
cause	65	Verb	0,002988
Ad	63	Noun	0,002896
Day	55	Noun	0,002528
increase	53	Verb	0,002436
people	51	Noun	0,002344
result	51	Noun	0,002344
Adult	49	Noun	0,002252

infection	49	Noun	0,002252
Vary	49	Verb	0,002252
patient	47	Noun	0,00216
depression	42	Noun	0,001931
liver	42	Noun	0,001931
treatment	42	Noun	0,001931
work	42	Verb	0,001931
use	40	Verb	0,001839
condition	38	Noun	0,001747
severe	37	adjective	0,001701
feel	37	Verb	0,001701
stroke	36	Noun	0,001655
right	35	adverb	0,001609
sugar	34	Noun	0,001563
high	34	adjective	0,001563
reduce	33	Verb	0,001517
cancer	32	Noun	0,001471

Table 2: Word frequency in the transcribed document

This table shows that the word 'doctor' is the most recurring in the document (247 occurrences). As it is possible to see, the modal 'may' recurs 232 times. This feature is pretty common, as 'may' is the typical modal verb used in the list of possible side effects, both in the written version (the side effects sheet in the drugs' boxes) and in the spoken version in the commercials.

Medicine-related words can be found, that are pretty much intelligible to patients (prescription, pain, symptoms, blood, etc.). Another group of more sophisticated specialized medical lexemes is present; it includes the names of the conditions (Crohn' disease, emphysema, primary peritoneal cancer, etc.), of side effects (asthma, priapism, rash, tenderness, dizziness or fainting, diabetic ketoacidosis, etc.) and of drugs' active ingredients or drugs types (anticholinergic medicines, salmeterol, alpha-blocker, thioridazine, sulfonylurea, serotonin, norepinephrine, etc.).

The use of scientific discourse is seen as a way to spread the knowledge gap between the medical care providers and the patients. Specialized medical terminology in communication, means having patients withhold medical assessment, accept it and subordinate their opinion about the condition.[97]

Another linguistic characteristic that is clearly evident is the presence of a high number of abbreviations and acronyms. In Table 3 a list of abbreviations and their occurrence is reported. Abbreviations are strategic to make discourse opaque as they can confuse and alienate unfamiliar

[97] Anssi Perakyla, "Authority and Accountability: The Delivery of Diagnosis in Primary Health Care", *Social Psychology Quarterly*, *JSTOR*, 61.4, (1998), 301-320.

audiences.[98] In the transcription document, abbreviations and synonyms are rarely explicated. Most of them refer to conditions, active ingredients or medical protocols.

AFIB	18	NSAID	5
COPD	16	BRCA	4
HIV	14	CR	4
LDL	11	C-O-P-D	4
ACE	8	MBC	4
MAOI	8	UC	4
PrEP	8	ARB	4
A1C	6	TB	3
ALK	5	FDA	3
EGFR	5	OTHER	42

Table 3: Abbreviations and acronyms in the document

Paralanguage takes on an important role as much of the information, disclaimers, and recommendations are reported in small fonts, reeling text (with different speed from one commercial to another) or fading text.

The tense of verbs is also particularly important. The imperative is present in all of the 72 commercials, directing the consumer to act. Sometimes, it is present also in slogans and taglines, as in the case of Keytruda "Get your chance to live longer" (that, needless to say, appeals also to the patient's emotional status). The use of the imperative form implies that the patient/consumer is responsible for 1) getting information on the drug from the physician; 2) being responsible for being aware of side effects; 3) reporting information on the progress of the treatment or possible side effects.[99] In this paradigm, the patient becomes the responsible actor for the treatment and condition knowledge, for being aware of side effects and for initiating and keeping the relationship with the physician. The inversion of agentivity from doctor to patient will be discussed further on in this chapter. Here, from a linguistic point of view, the imperative sentences are reported: 'ask your doctor', which is the common start of the patient/doctor relationship from which this kind of advertising would stem. It calls the patient to act and ask the doctor to prescribe the drug. In some ads (9 out of 72) the imperative 'ask your doctor' is followed by 'if', that introduces a factor of uncertainty ('ask your doctor if BONIVA is right for you', 'ask your doctor if you are healthy enough for sexual activity (LEVITRA)'. The conditional clause introduced by 'if' that follows the imperative 'take/don't take… *if*', 'tell your doctor

[98] Andrew H Hales et al., "Alienating the Audience: How Abbreviations Hamper Scientific Communication", *APS Observer* 30.2 (2017), 22-24.
[99] Staci Defibaugh, "'I Talked to My Doctor:' Constructing the Neoliberal Patient-consumer in Direct-to-Consumer Pharmaceutical Advertising", *Discourse, Context & Media*, 28 (2019), 1-7.

if', implies that the patient is responsible for assuming a drug 'if' any of the listed conditions exists. 'If' is also present after the imperative form 'stop the treatment *if*', 'tell your doctor *if*', 'alert your doctor *if*' when the patient is called to action to report any symptoms, worsening or any other side effect (51 commercials out of 72).

Analysis of the variables

All the transcripts were then classified in 13 variables in an Excel file:

1. Name
2. Condition
3. Year
4. Minutes
5. Characters speaking, voice-over or both
6. Tagline
7. Typical phrase
8. "Tell your doctor"
9. Recommended by my doctor
10. Other mentions of a doctor
11. Is a doctor portrayed?
12. Does the doctor speak?
13. Information on condition

Variable 3 and onward are statistically countable and comparable. Values related to variables 6, 7, and 8 are made of text which can be investigated from a discourse analysis perspective, variables 4 and 5 are meant to record aspects connected with the structure of the commercial. Variables 9-13 refer to the informative aspects of the commercial, particularly on the presence/role of the physician. Some of the variables above need further explanation:

- Tagline: the slogan of the brand/ad. Sometimes the narrator does not actually say it and it only appears as a text at the end of the ad.
- Typical phrase: 'Ask/Talk to your doctor about brand'. Sometimes it is: 'Ask your doctor if brand is right for you', which is the recommendation to hear a doctor to confirm the medication is suitable to the patient's condition.
- 'Tell your doctor': it is common for these ads to ask the viewer to tell their doctors (or seek emergency medical help) if the condition does not improve, if they show symptoms of an allergic reaction or other reactions to the medicine. They might also be asked to report the medicines they take and their medical conditions or if they are planning to have or have had a medical procedure, or to talk to their doctors before they stop taking the medicine. The variants to this sentence are 'call your doctor', 'Alert your doctor' or 'see your doctor'.
- Recommended by my doctor: when the patients tell their story in the ad and how their doctor

told them about the brand and recommended the medication.
- Does the doctor speak?: If so, what he/she says is reported in the transcription
- Information on condition: if the ad explains the condition and/or its origins.

The shortest video is for NASONEX (0.33 minutes), while the longest is for LYNPARZA (2.24 minutes). The tagline is not present in 39 out of 72 commercials. The voiceover is not present in 5 out of 72 commercials only. The typical phrase is present in most commercials, 59 out of 72. The recommendation to "tell your doctor" is a recurring feature in the commercials, as it can be found in 65 out of 72 commercials. The information on condition is not reported in 59 commercials out of 72. The physician is present in 16 commercials out of 72 and recommends the drugs in 16 commercials out of 72 (the last two occurrences do not refer to the same 16 commercials). The doctor speaks in 11 out of 72 commercials.

These results represent the basis for the qualitative analysis.

5.2 *Qualitative analysis*

DTCA commercials are a peculiar type of advertising because they perform a double, hybrid role, promotional and informative, as they not only are designed to sell a product, but also report both health information on conditions and side effects information.[100] From the linguistic analysis, we learn that the inversion of agentivity from doctor to patient is clear in the majority of commercials investigated, where the patient performs an active role.

The patient speaks in first person in 47 out of 72 commercials, telling his/her story and experience, often leveraging on an emotional component (especially in the 3 commercial advertising cancer treatment). The inversion of agentivity that is detectable in the commercials is interesting if crossed with the data processed here. In the classic paradigm, where the doctor tells the patient what to do in case of a disease, the active role here is inverted: the patient is being foregrounded, becoming the promoter of the drug to the physician, who is backgrounded in the commercial. Patients tells their story and the way they have treated the disease. This is an example of activation and passivation according to van Leeuwen.[101] The patient is also given the responsibility to get information on the condition and on the drug, as well as its side effects. This responsibility requires knowledge[102] as the roles that patients take on is not merely as consumers but also as testimonials of the drug.

Although the presence of the word 'doctor' is very significant in the DTCA commercials (247 occurrences), and the word 'patient' is less significant (47 occurrences), the physician does not perform an active role, as he/she is present in 16 commercials out of 72 and speaks in the first person in only 11 commercials.

Furthermore, the 'recommended by my doctor' variable, that is the reference made by patients to their doctor as they tell their story, reports only 16 out of 72 occurrences in the document. This leads

[100] Ibid., 3.
[101] Theo van Leeuwen, "The Representation of Social Actors", Carmen R. Caldas-Coulthard and Malcolm Coulthard, eds., *Texts and Practices* (London and New York: Routledge, 1996), 32-70, 43-44.
[102] Defibaugh, *I talked to my doctor*, 5.

to consider that in the other cases the promotion of the drug is not backed by a physician's advice. This result is also confirmed from the picture of the concordances (Table 3): it shows that the word 'doctor' is objectivized when the voiceover recommends to ask for advice, to report symptoms or previous conditions. These considerations may infer an observation on the balance of power in modern DTCA advertising of patients and doctors. The risk, in such a paradigm, is that the doctor is not portrayed as an 'agent' but as a mere executor of the patient's requests.

As a matter of fact, those who criticize DTCA preconize that the shift in power in the relationship between the doctor and the patient may degenerate, leaving doctors in the questionable position of just having to provide "expensive products and treatments", which may or may not be appropriate in regards to the patient's condition.[103] As DTCA pushes patients to ask for a sponsored drug, it distorts their expectations about the prescribing behavior of the doctor.[104] Consequently, the danger is for health-care professionals to oblige to the logic of "customer satisfaction" to an unhealthy degree, forgetting the duty to evaluate not just "the patients' request", but their problem.[105]

6. Results

From a linguistic quantitative and qualitative perspective, the analysis of the commercials sketches a picture of a peculiar type of patient/doctor relationship. The use of verb modes like imperative and conditionals, of first-person pronouns, medical specialized language, abbreviations and paralanguage help position patients; they are often foregrounded when their function is promoting the drug to doctors. When necessary, patients are objectivized, and they are given the responsibility to 'tell' or 'call' the doctor to report symptoms or side effects. The qualitative investigation highlights the focus on the balance of power between the two roles (patient/doctor). In the classic paradigm, the doctor is the actor, the one giving advice, with the responsibility of informing and activating the process of knowledge that patients usually accepted.

The new schemata, suggested by DTCA commercial, seem to deprive doctors of their role of actors and advisors, whilst charging the patients with the responsibility of getting information on the drug, on the condition and on the side effects. The focus is then on the activation of the patient's role and on the backgrounding of the physician's. It seems clear that DTCA affects the doctor-patient relationship: it gives the patient more autonomy in the decision to purchase the medication and, at the same time, it re-writes the equation of the balance of power in the relationship, where the physician seems to lose identity and independence. These considerations may pave the way to possible further research on the continuously changing balance of power in the relationship professionals vs consumers, as it is depicted in mass-media communication.

[103] Parker and Pettijohn, *Ethical Considerations,* 282.
[104] Robinson et al., *Direct-to-Consumer Pharmaceutical*, 431.
[105] Kravitz, *Direct-to-Consumer Advertising,* 2244.