Argumentative moves in the public discussion on the smoking ban

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Submitted to the
Faculty of Communication Sciences
University of Lugano

for the degree of
Ph.D. in Communication Sciences

March 2009

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Abstract

Discussion on the introduction of the smoking ban in Ticino has all the characteristics of a debate, where every participant takes a position. In this context, observing argumentative content means reconstructing the core of the discussion. However, understanding argumentative content is difficult because argumentation is a complex activity. Content analysis allows reconstruction of a small part of the content and the core question of the thesis arises from this observation. The main aim of the thesis is methodological. The question is "how can we best describe argumentative content?" and is developed throughout the study until the final question is formulated: to what extent can the argumentation theory help in constructing the most expressive content analysis?

The content analysis presented in this dissertation is a typical example of a quantitative approach based on one main tool, the codebook, containing the categorization of a few variables used for the codification of the messages. These variables were collected and observed in a sample of more than three thousands articles. The aim of the content analysis was to describe the debate surrounding the smoking ban in Ticino as it was covered in Swiss newspapers. The question to answer was how the smoking ban was framed over a period of around three years. The resulting content analysis helps to describe the debate because it analyzes a large number of messages. However, like a structural feature of a quantitative study, the number of variables is limited and some aspects are difficult to describe. In particular, it is impossible to understand the relationship between contents.

The point is that even while it is true that a quantitative content analysis can answer many questions, it is a tool and not a theory. It therefore needs theory if it is to be applied more effectively. In the case of this content analysis the goal was to find arguments. The quantitative content analysis in that case can be even more effective if we take a step backwards. Arguments are concepts studied by argumentation theorists. Their theories and models can help in the construction of a tool for quantitative content analysis. In this way we could have the depth of a specific theoretical approach in the background plus what has been inherited from social sciences. Moreover, we would still have the advantage of a huge corpus of data to process with statistical analysis. This is a step towards a more detailed approach without losing quantity. In this way the resulting description can be even more faithful.

Aknowledgments

I wish to thank Professor Peter J. Schulz, the supervisor of my doctoral thesis, who supported me in conducting my research. I am grateful for this work and for the researches I worked for in the Institute of Communication and Health during the last years under his supervision.

I am thankful to Prof. Frans Van Eemeren, Prof. Bert Meuffels, Prof. Bart Garssen and Prof. Francisca Snoeck Henkemans, who welcomed me in Amsterdam and helped me improving my knowledge in the field of argumentation.

I owe a huge debt of thanks to Prof. Marco Colombetti, who was the first person to suggest me to go this "doctoral way".

Thanks to the Swiss National Science Foundation that financed my visit to the University of Amsterdam, where I have refined and deepened my analysis.

I would like to thank all the friends and colleagues of the Institute of Communication and Health of the University of Lugano. In particular, I wish to acknowledge the scientific support of Sara Rubinelli and Uwe Hertung and the daily support of Simone and Debora.

Most of all thank to my husband, Mattia, for his constant esteem and love.

For the same reason I am grateful to my parents, Mario and Giuditta, and to my sister, Chiara. I am particularly grateful to Greta, who always awakes in me the passion toward the world. I want also to thank another important person of my family, who is no longer with us, Nonna Giselda.

I want to thank also my new family members "in law": Cinzia, Tore, Vero and Diego.

Last but not least, lots of thanks to the friends of *Fronte* (Laura, Isabella, Marco, Chiara M., Bernadette, Chiara R.)*,* to my friend Chiara M. and to Marcin, Sofia, Emanuele, Barbara and Mery.

To Mattia, my beloved husband

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Introduction

Health communication is a branch of communication sciences that embraces many different areas (from doctor-patient relationships to advertisements, from health policy to internet mediated communication) and uses different research techniques. Working in this field I have tackled the problem of reconstructing public discourse on the smoking ban in Ticino and of monitoring the creation and acceptance of a new health policy. This aim was pursued by surveying the population and studying newspaper coverage of the issue throughout Switzerland. This dissertation focuses mainly on the latter aspect, developed through content analysis of newspaper articles. Newspapers content was collected and observed with special attention to its argumentative traits. Discussion on the introduction of a smoking ban has all the characteristics of a debate, where every participant takes a position. In this context, observing argumentative content means reconstructing the core of the discussion. However, understanding argumentative content is difficult because argumentation is a complex activity. Content analysis allows reconstruction of a small part of the content and the core question of the thesis arises from this observation. The main aim of the thesis is methodological. The question is "how can we best describe argumentative content?" and is developed throughout the study until the final question is formulated: to what extent can the argumentation theory help in constructing the most expressive content analysis? This introduction outlines and explains the main steps taken in the attempt to answer this question.

The methodological aim is reached by means of an empirical case study of the smoking ban in Ticino. Smoking is a controversial topic and has been the subject of debate ever since it first emerged. Its intrinsic characteristics have not always been the ones at stake, the discussion on smoking has rather been socially constructed. Health policy discussion on the creation of a smoking ban represents another step in the social construction of smoking and follows on from the more general evaluation of the harmful effects of smoking. However, the process was long and complicated. The entire twentieth century was devoted to this discussion and the issue has been framed in many ways. Many players were involved: from doctors to tobacco companies, from smokers to anti-smoking associations who framed the topic in many different ways depending on their interests and needs more than on the intrinsic characteristic of smoking. This point is studied in the first chapter of the thesis.

The second chapter is linked to the first by the concept of frames, a concept that needs to be theoretically motivated and hence the reason for the literature review on the framing theory and its applications. The concept of frames and framing was developed during the twentieth century and involves many factors, from individuals' perception of certain topics to their media representation. Most researchers tended to focus on a specific aspect while others attempted to formulate an all-encompassing conceptualization. However, many fields, including health communication, adopted the framing perspective. In particular, there is a study on smoking that investigates frames through the content analysis of the written documents of tobacco companies and anti-smoking associations in California and which was conducted at the time when a restrictive law on smoking was introduced there.

After outlining the historical and theoretical background, the second part of the thesis presents an empirical case study. Chapter three describes the structure of the project set up to monitor public discussion on the smoking ban in Ticino. After the first introductory part, the chapter continues with a detailed description of the main features of the content analysis with an explanation of the main results. The analysis will first of all highlight the nature of the debate during the three year observation period and will then focus on the players who took part in the discussion. The next step will be to describe the main arguments used and their development over the period. Special attention will be paid to distinguishing between the three linguistic regions of Switzerland as they have cultural differences and because Italian-speaking Switzerland is the only region to have actively discussed a smoking ban law.

The fourth chapter introduces the core methodological part of the thesis and reflects on the limits of the content analysis in describing the argumentative content of the debate. This chapter comments the quantitative and qualitative method and then continues by delineating a theoretical approach to the argumentation theory: the University of Amsterdam's Pragmadialectics approach. By applying this method to newspaper articles it is possible to understand the expressive limits of a content analysis. The chapter traces the application of this method to the articles collected step-by-step and also adds some new features to the classical argumentation analysis oriented towards integration with the content analysis. The application of pragmadialectics then involves matching qualitative argumentation analysis and quantitative content analysis, and this is dealt with in the final chapter.

Comparison of the two methodologies in the fifth chapter offers a systematic view of the feasibility of their integration. Since it is clear that content analysis as it has been applied to the collected articles is not sufficiently expressive, it is now important to understand how can we improve it. The application of argumentation and its theoretical framework

help add new features to the codebook for the content analysis. The inclusion of new concepts and categories will provide a more expressive content analysis. The chapter concludes with some reflections on the new tool obtained and its trustworthiness. It will then continue by describing the openings offered by the dissertation and the further steps I would like to take.

The assumption of this dissertation is that the description of an object is more complete if we use both quantitative and qualitative methods. The first pages of this chapter illustrate what for a long time has been considered an incompatibility between two main methodological approaches in science but the time has come in the history of scientific methodologies to reach a reconciliation. In the section on this reconciliation between qualitative and quantitative methods Patton says, "Qualitative and quantitative data can be fruitfully combined to elucidate complementary aspects of the same phenomenon" (2001, p 558).

Van Gorp's approach to framing was presented in chapter I: he points out that the first step towards understanding framing is to identify and reconstruct the framing devices in media content. He also says that the methods to use for this purpose are mainly discourse analysis and classical quantitative content analysis. Since the theoretical background of this thesis was the framing approach, it is useful to make use of all the possible methodologies that can help in the identification of the smoking ban frames.

The content analysis presented in chapter 3 is a typical example of a quantitative approach based on one main tool, the codebook, containing the categorization of a few variables used for the codification of the messages. These variables were collected and observed in a sample of more than three thousands articles. The aim of the content analysis was to describe the debate surrounding the smoking ban in Ticino as it was covered in Swiss newspapers. The question to answer was how the smoking ban was framed over a period of around three years. The resulting content analysis helps to describe the debate because it analyzes a large number of messages. However, like a structural feature of a quantitative study, the number of variables is limited and some aspects are difficult to describe. In particular, it is impossible to understand the relationship between contents. Indeed, as shown in the previous chapter, even although it is possible to count the single elements, such as arguments, and to compare their occurrences in texts it is impossible to find out if there is any kind of relation between them.

Chapter 1. Introduction

This new century is not only conditioned by the past, it will also carry it forward, because history is a line that never interrupts conventional time. In classical terms history can be traced through works of art, wars and politics, but men have lived and made history also using objects and those objects then shape habits, lead to innovations, change politics and vice versa. They may be either significant or unimportant but in some way they do make history. Perhaps it is for this reason that Brandt[1] (2007) decided to give his book such a telling title "The Cigarette Century" because we could say that cigarettes have made history. However, the role of tobacco in general, and cigarettes in particular, has still to be fully delineated even although their pivotal role is widely recognized.

Initially, tobacco was all about agriculture. After the discovery of America it became an important crop that was exported also to Europe. Several centuries later the production of cigarettes, a new way of smoking tobacco, became an industry that would make entrepreneurs very wealthy. Cigarettes were promoted through all possible mass media channels in the twentieth century, from movies and music to advertisements during sporting or other events. These advertising campaigns are among the most successful of all time and in the first fifty years of the last century the consumption of cigarettes grew exponentially. However, tobacco and its uses finally began to attract the interest of another domain - health - and since then the players involved in the cigarette debate have included not only anti-tobacco crusade groups and tobacco and other industries, but also physicians, lawyers and politicians.

The tobacco industry has attracted worldwide attention for more than a century and at present the situation is still uncertain. In the following pages I will present the history of tobacco, focusing above all on the effect that the emergence of health issues has had on the public's image of cigarettes.

1.1 The social construction of smoking

Two considerations spring to my mind when studying the history of cigarettes. The first is that tobacco, and the related act of smoking, has had a huge impact on recent history and on the present day. It was a controversial social topic for many years and remains so

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[1] This chapter uses Brandt's book "The Cigarette Century" (2007) as a reference point in the reconstruction and evaluation of the history of tobacco.

in interpersonal communication. The second consideration, related to the first, is that analysis of such a controversial issue reveals different points of view and different interpretations. For example, it is particularly interesting to look at the health related aspects of smoking. Tobacco was initially innocently used by native Americans for medical purposes but with its diffusion in America and Europe rumors began to spread about the probability of harmful side-effects. However, the elaboration of this viewpoint was protracted and painstaking.

To indisputably demonstrate that smoking is harmful a huge corpus of data that constitutes proof, and not only in random or exceptional cases, is required. The claim has to be supported by medical knowledge and for this reason it took many, many years to demonstrate the risks involved in smoking. To prove a causal relationship between smoking and lung cancer we need evidence, otherwise all the sides in the debate can play an indiscriminately persuasive role. Tobacco companies wielded great power for many years because they could afford to transmit positive messages through a wide range of channels. They were able to present an attractive product, playing on concepts such as success, beauty and others and until data on the health risk were sufficiently corroborated to become shareable evidence.

The theme of smoking is socially constructed using tools that allow its harmful effects to be measured. The fact that smoking is harmful is intrinsic to cigarettes but it appears to be a *new function* of smoking to discover and then attribute to it. The pleasure of smoking was immediately perceived by consumers as was the freedom of being able to smoke wherever and whenever one liked, while the fact that it had detrimental effects on the health of both the smokers themselves and of the people around them was discovered more gradually, backed by targeted studies. We could say that smoking is a social fact (Searle 1995). Initially, furthered by the tobacco companies' adverts and the rapid diffusion of the habit, all the ontologically subjective aspects were seen, at least among smokers, as being epistemologically objective. As regards health related aspects, the process is a little more complicated because institutional groups such as physicians and politicians need evidence before making claims. However, when the health aspects had been unquestionably demonstrated they began to prevail over the others, above all because of the proved causal relationship between smoking and lung cancer.

As mentioned above, it is an undisputable fact that the risk of smoking lies in the very act of smoking itself, so it could be what Searle defines "Intrinsic (ontologically objective) features of reality of those that exist independently of all mental states, except for mental states themselves, which are also intrinsic features of reality." But a complex social fact such as smoking, which with time became a problem requiring regulation, leads to the definition of many institutional facts. A complex social fact is different, for

example, from a screwdriver (Searle 1995) which we could define as a piece of plastic and metal. When smoking became a social practice each subject associated it with a different characteristic. That is why smoking is represented in so many different ways. Tobacco industries have continually changed the focus of their advertising over the years with the aim of preventing losses and smokers continue to enjoy their habit for different reasons. Physicians and politicians then drew attention to others. Study of the history of tobacco brings to light different interpretations of smoking represented during the prolonged debate. This is why I will look at the concept of framing in the next chapter as it is an important aspect of the debate and has to be understood if we are to understand the question as a whole.

The two points made above and the content of this section justify the choice of the smoking ban in Ticino as the topic of this thesis. Smoking has played an important role in our society and is a central theme of health policies in the western world. By tracing the evolution of this issue over the past century we can see what changes when a country takes the historic decision to introduce a smoking ban.

My thesis falls within the sphere of health communication. It adopts an epistemic approach, applying both quantitative and qualitative methods to an empirical case.

1.2 The history of tobacco and cigarettes

The history of tobacco can be traced back to the time when native Americans used it for religious and medical purposes. After the discovery of America tobacco was exported to Europe, where it became popular in the middle of the sixteenth century, and by the early seventeenth century it was an important crop grown all across America.

Cigarettes were invented early on, at the time when tobacco became popular in Europe, but the most common use of tobacco continued to be pipe-smoking, chewing and snuff. Cigarettes would become more popular later, towards the end of the nineteenth century, when a machine for their production was invented and new varieties of tobacco leaf were introduced.

The first American cigarette factory opened in 1864 and recorded a total production of twenty million cigarettes a year. By 1875 competition on the cigarette market had become fierce and some companies began to design and produce more attractive packets to hold their cigarettes with photos of famous personalities. These are considered by historians to be the first modern cigarettes; Camel would arrive on the market only forty years later.

As mentioned above, native Americans used tobacco for medical purposes, clearly demonstrating that at that time no thought was given to its harmful effects. During the twentieth century cigarettes became very popular and the interest of the industry in this use of tobacco grew exponentially.

The first legal judgment on tobacco was passed down by the Tennessee Supreme Court in 1898. After placing a total ban on cigarettes it stated that they were "not legitimate articles of commerce, being wholly noxious and deleterious to health. Their use is always harmful." After just two years Washington, Iowa, Tennessee and North Dakota followed suit, outlawing the sale of cigarettes. Historical documents show that in 1901 almost all the states were taking some sort of action against cigarette smoking, yet for the population these actions all seemed to be pie in the sky because in the meanwhile three and a half million cigarettes and six billion cigars were sold with four out of five American men smoking at least one cigar a day. In Europe, the first attempts to discourage tobacco use date back to the beginning of the 20th century, but they had little success as the number of smokers continued to rise (Sardu et al. 2006).

1.2.1 First there was marketing...

After firmly establishing smoking among men, tobacco companies began to turn their attention to women. Marlboro, created in 1902, were branded cigarettes for women as they had a red tip to conceal lipstick stains. However, this new technique was not a success. Philip Morris tried to win over women again in 1924 with the slogan "Mild as May" and targeting "decent, respectable" women. This advert then continued saying: "Has smoking any more to do with a woman's morals than has the color of her hair?", and "Marlboros now ride in so many limousines, attend so many bridge parties, and repose in so many handbags."

Three years later Lucky Strike followed suit, targeting women with the slogan "reach for a Lucky instead of a sweet." This advertisement gave rise to many complaints by candy manufacturers but in spite of this "smoking initiation rates among adolescent females tripled between 1925-1935 and Lucky Strike captured 38% of the American market." However, this association between candy and smoking, the idea of a **sweet pleasure** that allowed you to stay slim was replaced by a more serious question: **freedom**. In 1929 Lucky Strike accentuated the fundamental concept of women's emancipation with the help of Bernays, Freud's nephew, who played an important role in the cigarette marketing campaign. He called them "torches of freedom", and this new idea of cigarettes captured many women who "marched down Fifth Avenue puffing Lucky Strikes" (Brandt 2007), summoned by the famous feminist Ruth Hale. In Europe, the

number of women smokers rose between 1951 and 1960, the time of emancipation. The message was the same but the schedule varied because the timeline of women's emancipation was different in Europe. That is just one of the facts that bears witness to Europe's "imitation" of America's tobacco history. Europe follows the same line, but the events take place some 20/30 years later.

After winning over the "weaker sex", cigarettes became even more popular as the **social idiom of everyday life** spread by the movies took root. From the 1930s cigarettes appeared extensively in movies and this new advertising strategy was once again Bernays' brainchild. His aim was to have cigarettes appear in all sorts of different scenes and smoked by all sorts of different characters. In this way they assumed a wide variety of "meanings" (Brandt 2007). Promotional efforts were never wasted in that period. Brandt points out a shocking fact: after the stock market crash in 1929 cigarette sales did not suffer, and it was the only exception.

In Brandt's opinion this hard sales tactic was the real key to the success of tobacco, making it "such a powerful symbol of the consumer culture". The diverse connotations of cigarettes can be clearly seen as early as 1920: when addressing women, cigarettes were presented as "signs of independence" and as a means to "independence" but also as an object of "sexual attractiveness", "physical beauty" and "leisure" while for men they were associated with "virility", "strength" and "mental acumen". They became the symbol of the "modern culture" of the early twentieth century.

1.2.2 ...then came medicine

Such a far-reaching phenomenon as the diffusion of cigarette smoking and its social endorsement was bound to arouse the curiosity of some physicians. At the beginning of the twentieth century scientific medical journals, such as the *American Journal of Public Health*, began to publish articles claiming that smoking was harmful. When this new train of thought appeared physicians' opinions were not unanimous and those *against* smoking were not supported by data and statistics.

Early in the twentieth century anti-tobacco groups associated smoking with **moral values**; within these movements health risks related to smoking were also sometimes referred to but they had no evidence to back their claims. In 1912 Lucy Page Gaston declared, "smoking - defined as an act of dubious morals - must lead to disease". At that time it was impossible to clearly separate morality from health and this was what allowed the anti-tobacco movements to use this argument.

In the early 1920s physicians were divided over the use of tobacco, while at the end of the same decade they began to demand more statistics and less moral judgment. They began to investigate in a more sophisticated way and in that period it was not only medical journals that lectured about smoking, even *Good Housekeeping* refused to publish tobacco advertisements and stated that rumors about health risks should shift attention from "personal liberty" issues to health ones (Brandt 2007). Yet, even if physicians wanted to separate morals from health, the boundary between the two was still very fuzzy. Efforts concentrated on the vulnerability of the "weaker sex", but in 1930 voices about the impact of smoking on fertility and lactation had to be silenced because of the lack of proof. Nevertheless, this situation gave rise to a fundamental research question: how to demonstrate a causal relationship between smoking and disease.

In 1930, when the use of tobacco was already widespread, some researchers in Germany published an empirical study that pointed to a relationship between smoking and cancer. The scientist's name was Franz Hermann Müller, a physician from the University of Cologne's Institute of Pathology. The study, published in the *Journal of the American Medical Association*, aroused concerns about smoking, but the suspicions had to be proved. Eight years following the publication of this study a second important report on the health effects of smoking was published by Dr. Raymond Pearl of Johns Hopkins University (CNN.com 2000). In this report he claimed that non-smokers lived longer than smokers. Even these two studies cries about the health risk of smoking grew louder, evidence of this, which can be obtained from a generalizable data analysis, was still not available also because it was still difficult to measure the risks. It was clear that the possibility of a risk to the health caused by smoking was still far from being on the public's mind, if we consider that in 1940 cigarette consumption in America was twice that of 1930.

In the early 1940s scientists conducted many experiments, taking care to avoid as much bias as possible. Previous experiments had often been undependable for the fact that the physicians selected their sample and presented their studies under the preconceived notion that smoking was a hazard. They then discovered that experiments on young people were not suitable to demonstrate the potential risks of smoking because they realized that tobacco-related problems become manifest in the long-term. In the 1940s, even if the currently proved risks were already known, physicians' recommendations had to remain permissive: they preached moderation, like Hoffmann did in 1931 after a major study, because the question regarded individual clinical tolerance. After that, the debate shifted from individual clinical tolerance to the possibility of a **causal relationship between smoking and cancer** and premature death. "This transition demanded new clinical capacities" (Brandt 2007).

In 1944 the American Cancer Society officially stated that there existed possible negative health effects of smoking, even if they also admitted that "non definite evidence exists". Researchers of the time had already associated smoking with lung cancer but again they had to be sure before declaring it to be more than a possibility. They were still not able to demonstrate a causal relationship between the two factors.

The health framework evolved rapidly in the middle of the twentieth century. In 1947 Wynder and Graham carried out a study published in the *Journal of the American Medical Association* in 1950. They claimed that "smoking cannot be the only etiologic factor in the induction of disease", but then added "the temptation is strong to incriminate excessive smoking, and in particular cigarette smoking, over a long period as at least one important factor in the striking increase of bronchogenic carcinoma...". "They offered four reasons to support this conclusion. First, it was very unusual to find lung cancer among nonsmokers. Second, among patients with lung cancer, cigarette use tended to be high. Third, the distribution of lung cancer among men and women matched the ratio of smoking patterns by gender. Finally, 'the enormous increase in the sales of cigarettes in this country approximately parallels the increase in bronchogenic carcinoma'" (Brandt 2007).

Another important study by Doll and Hill of 1947 was published in the *British Medical Journal* in 1950, four months after the first one. Discussing the study Hill said "As I went through and checked the diagnoses I saw that patient after patient in the 'lung cancer' group who was regarded as a non-smoker turned out not to have lung cancer; whereas, in those who were heavy smokers the diagnoses seldom had to be changed...this was a striking finding and quickly drew our attention to the importance of smoking" (Brandt 2007). Doll and Hill's study was important also from a methodological perspective because it systematically provided evidence to support their hypotheses.

After those studies many other physicians concentrated their efforts on finding a causal relationship between smoking and lung cancer. Their work required the definition of an accurate methodology; using Brandt's words we can say that "modern epidemiology was constructed around the problem of the harms of smoking". In 1954 the majority of the authoritative figures in medicine were convinced of the harmful effects of smoking. It was in 1955 that Carl Weller published the book *Causal Factors in Cancer of the Lung* that provided the evidence. In the same year the "Survey of medical opinion towards smoking" was published with the aim of clarifying the reasons behind the different stands taken by physicians and the results confirmed Graham's idea: "Among those polled, 55 percent agreed with the statement that heavy smoking may lead to lung cancer; 32 percent expressed uncertainty; while only 5 percent disagreed. But among

those surveyed who smoked a pack or more each day, only 31 percent agreed that 'Heavy smoking may lead to lung cancer". Among non-smokers, the figure was more than 65 percent" (Brandt 2007). This supports the claims made in the first section: smoking is a matter of controversy because of the different interests involved.

Things began to change also as far as public opinion was concerned when it was directly informed about the statistical results in 1952 in an article published in Readers' Digest entitled: "Cancer by the Carton". The article provided information about the harmful consequences of smoking and was the spark that ignited the fire in other newsrooms and then among the public.

Indeed, the cigarette business began its decline from that moment. After a while the tobacco industry reacted, taking two different lines of action, the first of which helped achieve the second: they created their own Tobacco Industry Research Council and invented new marketing strategies. Advertisements promoted filter cigarettes and new formulations that promised to take care of health. This campaign worked well and sales began to grow again. In 1936 the first answer to physicians' attacks had come from Brown and Williamson who introduced Viceroy, a brand which had cellulose acetate filters and used physicians in its advertisements as a way of counter-attacking arbitrary assumptions about smoking. In 1942 cigarette companies used a new message in their marketing campaigns: **cigarettes had health benefits**. They defended their opinion again by using physicians as their promoters and their new strategy was skepticism. This strategy was used for more than ten years but when the conjecture surrounding health risks became more and more a certainty, tobacco companies preferred silence on health issues. Marlboro began to address men with its legendary cowboy campaigns, it launched Marlboro country and sales grew. In the meantime Philip Morris addressed women with the slogan of the new Virginia Slims "You've come a long way, baby".

But the concerns did not go away and after a few years (1960s) the Surgeon General's Advisory Committee on Smoking and Health was founded. Evidence of the causal relationship between smoking and cancer multiplied and political spheres became sensitive to the problem. In 1964 the Committee released its first document. The report, entitled "Smoking and Health", was about four hundred pages long and the content led to conclusive evidence of the consequences of tobacco usage in men. As regards women, the document stated that the data available were still insufficient but that they "point in the same direction". The probability of smokers getting lung cancer was about ten percent higher than for non-smokers; the report also singled out the carcinogenic substances in cigarettes.

The tobacco industry reacted by claiming that smoking was a *voluntary risk*, a reaction due to the impact the discussion on the negative risks of smoking was beginning to have

in the political arena. Tobacco companies and their allies began to accuse the government and politicians of being paternalistic and of violating the sacred American values of freedom, independence and the right to take risks. This was the situation in the early 1970s and in the same period anti-tobacco crusade groups began to talk about smoking as an environmental toxin. Their argument was built around the image of the **"innocent victim"** of **"passive smoking"** and represented another shift in the debate on smoking because the image was powerful and was supported by the inductive reasoning that if smoking is harmful then it cannot be safe to breathe in others' smoke. To have data on this subject was far from easy because study of the question was necessarily extremely protracted. Demonstrating the direct risks of smoking had taken a long time, but measuring the risks of secondhand smoke was even more complicated since it involved many other variables.

The first study on secondhand smoke - a Japanese one which had been completed in 1965 but which had been controlled many times before its publication and which would mark a watershed in the debate - was published in 1981. The study revealed that women with smoker husbands had a greater likelihood (40% more) of developing cancer than women whose husbands don't smoke. The first percentage referred to medium smokers (14 cigarettes per day) but in the case of heavy smokers (a pack or more a day) the risk for wives rise to 90% (Brandt 2007). A year earlier *Science* had published a study that revealed that ETS (Environmental Tobacco Smoke - the *smoke of non-smokers*) exceeded the legal limits for carcinogens by 250 to 1,000 times in bars, restaurants and other public places. In 1981 the National Academy of Sciences stated that "public policy should clearly articulate that involuntary exposure to tobacco smoke ought to be minimal or avoided where possible", and this marked the first occasion on which a scientific organization drew the attention of politics to smoking.

In the late 1980s the number of studies on the risk of secondhand smoke increased and were the subject of intense scrutiny and attacks by tobacco companies and also some scientists. Tobacco companies continued their battle against the paternalistic attitude of governments but the problem was now even more complicated; the fact that smoking both actively and passively affects public health called out for political attention. From the early 1970s anti-tobacco groups, even without scientific evidence on their side, began to call for smoking ban laws because **"non-smokers have rights too"** (Brandt 2007). It was the first time that the question of freedom and rights was so strongly associated with non-smokers in the tobacco debate.

In 1972 a Surgeon General's report for the first time explicitly expressed the possible dangers of passive smoking. Subsequent studies concerned secondhand smoke and cancer and chronic obstructure pulmonary disease but they lacked conclusive data. In

1986 the National Academy of Sciences voiced the possibility of secondhand smoke becoming a proven risk. After that the tobacco companies, even although they tried to spread skepticism once again, were no longer considered reliable by the general public and mass media. They lost their credibility while epidemiology gained it over the decades. Even although the method used to identify the risks of secondhand smoke was not as sophisticated as the one adopted for studies on the direct risks of smoking, the arguments was almost generally accepted for many reasons: from the good framing of non-smokers' rights to the non credibility of tobacco companies, from the trustworthiness of epidemiology to the sensitivity of public opinion to smoking. This shift definitively brought politics, and legislation above all, into the debate on smoking.

As can be seen in the graph below, public opinion became sensitive to the health risk frame, with the result that the number of smokers dropped in Europe too. The trend in the population of West Germany over almost sixty years is shown, with smokers divided into men and women. The figures confirm the points made on page 5; i.e. that the number of women smokers increased in Europe during the period of emancipation in the 1960s and '70s. The trend then steadied out and decreased in a similar way to that of men.

Figure 1.1 Smokers' Trend in West Germany between 1950 and 2007

Raucher im Trend
(1950-2007)

Legend: Insgesamt — Frauen — Männer

88
83
74
60
51 49 46 44
47
39 41 39
37
35 35
32 33 34
30 29
29 28 27 27 28 25 24
21 21 24

1950 1955 1965 1975 1985 1996 2000 2003 2006 2007

Westdeutsche Bevölkerung ab 14 Jahre
in Prozent

QUELLE: Allensbacher Archiv, IfD-Umfragen
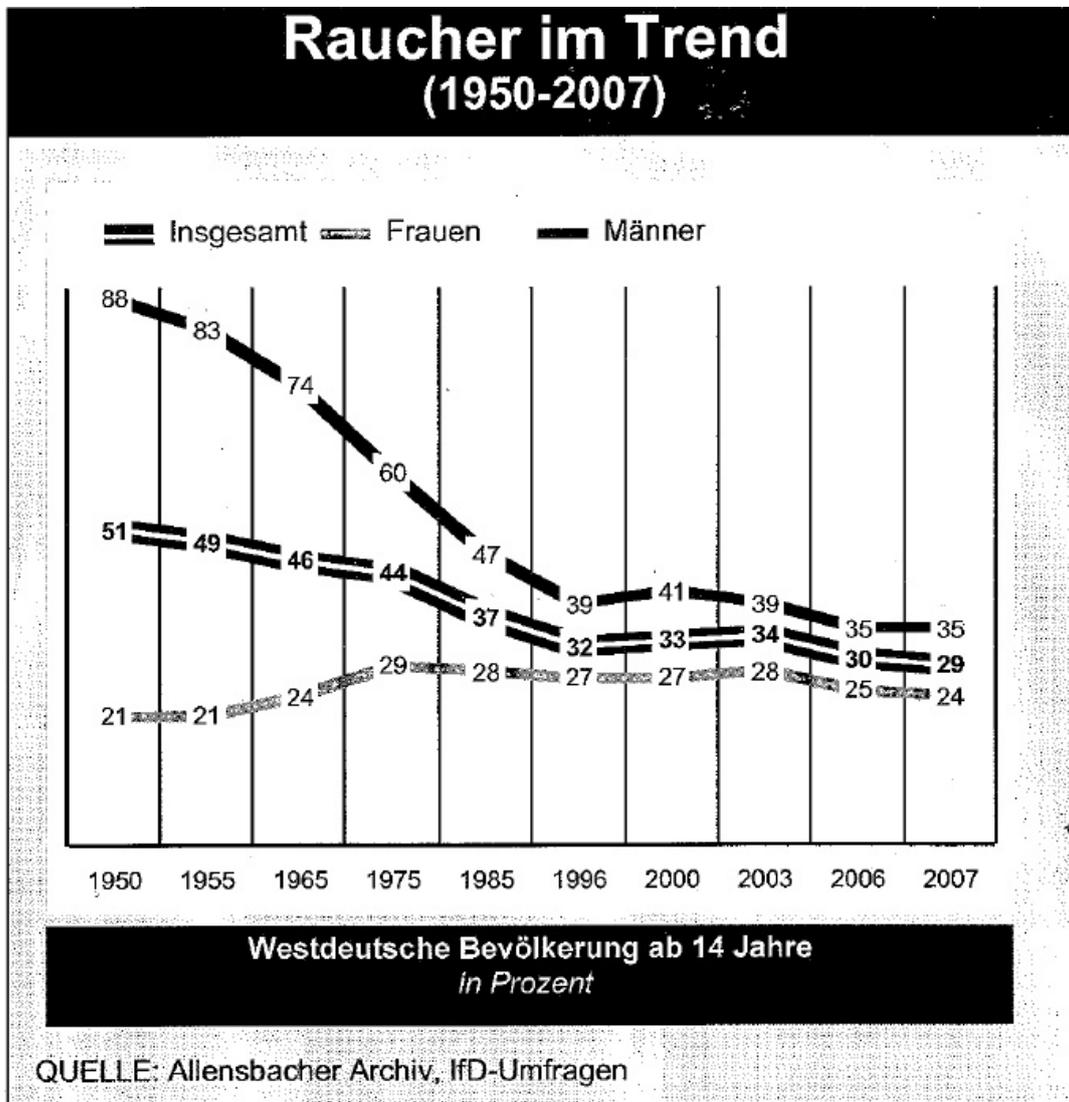
Source: Allensbacher berichte, Institut für Demoskopie Allensbach, 2006/5

Between 1950 and 1990 men cut back by about 50%. While the percentage remains higher than that of women, the trend is more or less the same.

However, another study carried out by the Institute für Demoskopie shows that the drop for men mainly regards forms of smoking other than cigarettes such as pipes and cigars. It is also important to note how public opinion on smoking changed in the same region of Germany. The results of a survey proposed in three waves between 1979 and 1997 give an idea of the changes in opinion, which confirm the data in this section, and also

the changes in smokers' habits. The sample interviewed in 1979 comprises 663 individuals: 44% consider cigarette smoking harmful for the health. In 1985 in a sample of 776 individuals this percentage rises from 44 to 53. In 1997 62% of the sample (850) claim that smoking cigarettes is harmful for the health. These results show the change in opinion on active smoking, but there are also interesting data on passive smoking. The statement "being in spaces where people smoke a lot is harmful for the health" was upheld by 22% in 1979 and did not change much between the first and second wave, because in 1985 just 25% of the sample believe it to be harmful. The biggest change was recorded between 1985 and 1997, because in the final wave the percentage rose to 43%. While there was a gradually increasing trend in active smoking (about 10% between each wave), the opinion on passive smoking changed suddenly by 20% between the second and third wave. This clearly shows the dual nature of the health risk frame of smoking as well the timing of the dissemination of information in European countries.

1.2.3 The intervention of law

The first political and legislative action on the safeguard of health was taken in 1965 when US Congress passed the Federal Cigarette Labeling and Advertising Act. This law set forth the obligation of written warnings on cigarette packets. After that, in 1971, all broadcast advertising was banned. This ban should have come into effect on January 1 but it was postponed to allow the final of Super Bowl to be broadcast with its original advertising. From April 1971 all tobacco packaging and advertising in the UK incorporated an official health warning. Some twenty years after these marketing regulations it was the turn of the smoking bans. In 1990 smoking was banned onboard US domestic flights of six hours or less and on interstate buses. More than twenty states initiated lawsuits against tobacco companies in order to collect money for the medical expenses of smokers. In 1993 the recorded expenses of tobacco companies increased by more than fifteen percent over 1992. The most structured policy against smoking was announced by Bill Clinton in 1995 with plans to regulate sales to minors and advertising.

It was in the wake of this clear-cut health policy that the tobacco companies appear to have changed their philosophy and policies. In 1998 Camel, Winston and Kool introduced advertising inspired by anti-smoking movements addressed specifically to young people. One year later Philip Morris acknowledged the scientific consensus on smoking: "There is an overwhelming medical and scientific consensus that cigarette smoking causes lung cancer, heart disease, emphysema and other serious diseases in smokers". In the same year the British royal family asserted its position with a resolute action: they ordered that their seal of approval be removed from Gallaher's Benson and Hedges cigarettes.

In 1999 the United Kingdom hospitality industry introduced the Voluntary Charter on Smoking in Public Places: pubs and restaurants would be obliged to introduce informative signs for customers about their policy on smoking. In the same year for the first time an individual won a lawsuit against tobacco company.

In 2000 the Canadian Minister of Health had graphic warnings introduced on cigarette packets.

In 2002 the British Medical Association claimed that there is "no safe level of environmental tobacco smoke". The Greater London Authority Investigative Committee on Smoking in Public Places called for an in-depth investigation into passive smoking, but didn't recommend introducing restrictions in public places.

In 2003 New York City applied a smoking ban in all public places. In the same year the United Kingdom banned advertising. One year later Ireland banned smoking in all enclosed public spaces such as pubs, clubs and restaurants. Northern Ireland followed suit in 2007, the announcement having been made in 2005. In 2005 Italy banned smoking in all enclosed public places, like Ireland the year before. In the same period in Ticino, Switzerland, discussion began on a possible introduction of a smoking ban.

Scotland decided to ban smoking in all enclosed public places in 2006, adding the possibility of a local council ban on smoking also in public parks. In the meantime the Parliament in London voted in favor of a smoking ban in all enclosed public places in England and Wales as of 2007.

In 2007 Spain banned smoking at the workplace but not in bars and restaurants with a surface area of more than one hundred square meters and with appropriate smoking rooms. Smaller bars and restaurants could choose whether to be smoking or non-smoking.

"An interest in the development of public concern about the potentially adverse effects of tobacco on health, and the consequent efforts to reduce the incidence of smoking, has constituted a major theme in the social history of medicine in the second half of the twentieth century" (Brown, 2004). After decades spent demonstrating that tobacco is dangerous and after some lawsuits against tobacco companies, the tobacco industry were faced with a completely new political and regulatory environment.

1.2.4 The regulatory situation in Europe

The section above cites some regulatory measures introduced in European countries while the table below shows the regulatory situation on smoking in all European countries at the end of 2006 before the United Kingdom introduced the ban mentioned above. The source of this table is WHO, World Health Organization, Regional office for Europe. The Organization provides access to a complete tobacco control database created in 2001 within the framework of the project "Tobacco-free Europe" developed in liaison with the national governments. This project plays a role in the FTCT (Framework Convention on Tobacco Control), the first ever international treaty on health. "The FCTC commits countries all over the world to act to reduce smoking-related deaths and diseases, and provides a framework for tobacco control measures to be implemented by the parties to continually and substantially reduce tobacco use and exposure to tobacco smoke." reads the EU Public Health portal.

In 1985 the European Community introduced legislation to combat tobacco use in Europe under a project called the "Europe against Cancer Programme". The first step of the program was to drastically limit tobacco advertising and sponsorships in Europe, about 30 years later than America. However, those first regulatory projects and the further bans in European countries follow the example of America, as do tobacco consumption trends. Tobacco companies, particularly Philip Morris, continue to implement strategies and tactics to oppose controls on advertising (Neuman, Bitton, Glantz 2002).

The EU portal highlights the problems caused by smoking and defines a specific policy for the prevention of tobacco related diseases and the cessation of smoking, both active and passive. "There is increasing awareness of the harmful effects of smoking in the EU. The Community attaches great importance to fighting tobacco use. The major objectives are prevention and cessation. Despite considerable progress, the number of smokers is still high – around one third of the Community population – and the health effects are equally significant, with about 650,000 smoking-related deaths per year in the Community. Almost half of these deaths are of persons aged between 35 and 69 – well below the average life expectancy. Smoking also affects the health of non-smokers, particularly in vulnerable groups, who are increasingly demanding protection." The European Union Health Portal lists the strategies adopted in this overall policy action such as education, information on the risks, agricultural measures and so on. The ban in itself is a matter for the single national governments but the European Union is deeply involved in raising awareness of citizens and governments. It tries to regulate and standardize advertising and the dissemination of information, for example by preventing

cigarette merchandising, a practice which is considered very risky because of the addictive nature of cigarette smoking.

Table 1.1 Smoking legislation in European Countries

Country	Status	Health care facilities	Education facilities	Government facilities	Restaurants	Pubs and bars	Indoor workplaces and offices	Theatres and cinemas
Albania	Ban	—	—	—	—	—	—	—
Andorra	Ban	2004	2004	2004	—	—	—	2004
Armenia	Ban	—	—	—	—	—	—	—
Austria	Ban	1957	2005	2005	—	—	2005	2005
Azerbaijan	Ban	2002	2002	—	—	—	—	2002
Belarus	Ban	—	—	—	—	—	—	—
Belgium	Ban	2006	2006	2006	—	—	2006	2006
Bosnia and Herzegovina	Ban	date not known/2005	date not known/2005	—/2005	—/2005	—/—	—/2005	—/2005
Bulgaria	Ban	1974	1974	1974	—	—	2005	1974
Croatia	Ban	1999	1999	—	—	—	—	—
Cyprus	Ban	—	—	—	—	—	—	—
Czech Republic	Ban	—	—	—	—	—	—	—
Denmark	Ban	—	—	—	—	—	—	—
Estonia	Ban	2005	2005	2005	2005	2005	2005	2005
Finland	Ban	1994	1994	1994	—	—	1994	1994
France	Ban	1991	1991	1991	—	—	1992	1992
Georgia	Ban	—	—	—	—	—	—	—
Germany	Ban	—	—	—	—	—	—	—
Greece	Ban	1993	1980	1980	—	—	1980	1980
Hungary	Ban	1999	1999	1999	—	—	1999	1999
Iceland	Ban	1999	1999	1999	—	—	1999	1999
Ireland	Ban	2004	1990	1990	2004	2004	2004	2004
Israel	Ban	2001	2001	2001	2001	2001	2001	2001
Italy	Ban	1975	1995	2005	2005	2005	2005	1975
Kazakhstan	Ban	—	—	—	—	—	—	—
Kyrgyzstan	Ban	—	—	—	—	—	—	—
Latvia	Ban	2006	2006	2006	—	—	2006	2006
Lithuania	Ban	1999	1999	1999	—	—	—	—
Luxemburg	Ban	1989	1989	—	—	—	—	1989
Malta	Ban	2004	2004	2004	2005	2005	2004	1986
Montenegro	Ban	2005	2005	—	2005	—	—	2005
Netherlands	Ban	2002	2002	2004	—	—	2004	2004
Norway	Ban	1988	1996	1988	2004	2004	1988	1988
Poland	Ban	—	—	—	—	—	—	—
Portugal	Ban	—	—	—	—	—	—	—
Rep. Moldova	Ban	2001	2001	—	—	—	—	—
Romania	Ban	—	—	—	—	—	—	—
Russian Fed.	Ban	—	—	—	—	—	—	—
Serbia	Ban	1995/2005	1995/2005	—	—	—	—	1995
Slovakia	Ban	1997	2004	1997	—	—	1997	2004
Slovenia	Ban	1996	1996	—	—	—	2002	—
Spain	Ban	2006	2006	2006	—	—	2006	2006
Sweden	Ban	2005	2005	2005	2005	2005	2005	2005
Switzerland	Restriction	cantonal laws	cantonal laws	1993	cantonal laws	cantonal laws	1993	cantonal laws
Tajikistan	Ban	—	—	—	—	—	—	—
The former Yugoslav	Ban	2003	2003	2003	2003	—	2003	2003
Turkey	Ban	—	—	—	—	—	—	—
Turkmenistan	Ban	2000	2000	2000	—	—	2000	2000
Ukraine	Ban	—	—	—	—	—	—	—
United Kingdom	Ban	—	—	—	—	—	—	—
Uzbekistan	Ban	—	—	—	—	—	—	—

Source: http://data.euro.who.int/tobacco/Default.aspx?TabID=2444

As regards Switzerland, legislative decisions on smoking bans still fall under the responsibility of the canton governments. Ticino was the first canton to definitively ban smoking in all public places and offices as well as on means of transport. Grigioni and San Gallo then introduced a ban in 2008, and five other cantons will introduce a ban in restaurants and bars in the coming three years.

Table 1.2 Smoking legislation in Swiss Cantons

Protezione dal fumo passivo nei Cantoni 01.12.2008

Cant.	Regolamentazione	Inclusa la gastronomia	Senza locale fumatori	Con locale fumatori privo di servizio al tavolo	Con locale fumatori, con servizio	Eccezioni, bar, ristoranti, locale fumatori son possibili	Entrata in vigore della normativa sui gastronomia	Appunti
AG	✓	✓	✓		✓	✓		Disegno (1.lettura)
AI								
AR	✓	✓			✓		01.01.11	
BE	✓	✓			✓			Referendum annunciato
BL	✓	✓			✓			Contraproposizione
BL	✓	✓		✓				Iniziativa popolare
BS	✓	✓		✓				
FR	✓	✓		✓			01.01.10	
GE	✓	✓	✓					
GL								
GR	✓	✓			✓		01.03.08	
JU								
LU	✓							
NE	✓	✓		✓				
NW	✓							
OW								
SG	✓	✓			✓	✓	01.10.08	
SH								Legge sulle locande senza protezione completa
SO	✓	✓			✓		01.01.09	
SZ								
TG	✓	✓			✓	✓		Contraproposizione
TG		✓		✓				Iniziativa popolare depositata
TI	✓	✓			✓		12.04.07	
UR	✓	✓			✓		01.09.09	
VD	✓	✓		✓				
VS	✓	✓		✓			01.07.09	
ZG	✓	✓			✓	✓		
ZH	✓	✓		✓				

Source: Federal Office of Public Health website

However, discussion has now started in many other cantons that had already applied less restrictive bans but the topic is still top priority in health policies and many politicians sincerely hope for a federal decision. It is useful to study the story of the introduction of the smoking ban in order to better understand the regulatory situation in Ticino.

Historical data on smoking in Switzerland are not available. In any case some general remarks can be made about this last decade. As the graph below shows, around 30% of the Swiss population smoke. However, it does not show the long-term decrease from 33% in 2001 to 29% in 2007.

Figure 1.2 Smokers' Trend in Ticino between 2001 and 2007
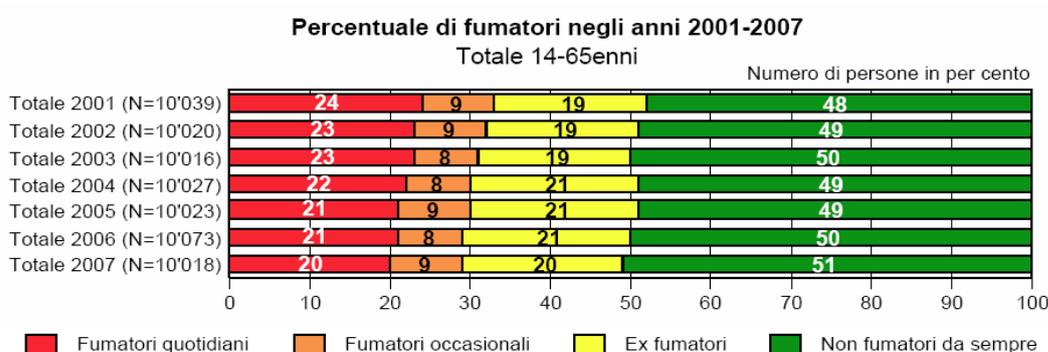
Source: Tabak Monitoring, Universität Zürich

In particular, Ticino can be observed by means of surveys conducted by the Cantonal Department of Health and the University of Lugano (ICH). In 1987 a survey of the Health Department of Ticino revealed that 30.7% of the population smoked. In 2005 a survey of the University of Lugano (Institute of Communication and Health) discovered that 28.2% of the Ticino population were smokers. In 2007, the fifth wave of the Institute of Communication and Health's survey revealed that 28.8% of the population smoked. In twenty years the trend has decreased by 2%.

Milestones in the history of the smoking ban in Ticino
In January 2005 a general smoking ban was introduced in neighboring Italy. There was much skepticism about the applicability of such a law in Italy but from the first day the citizens have shown full respect for this innovative health measure. This was perhaps the event that really opened up the possibility of a serious political debate in Ticino on new measures against smoking. Italy was one of the first countries in Europe to ban smoking in public places yet it is a trend, inherited from the United States, which has been picked up by most western countries.

Because of its federal politics and cultural diversity, Switzerland took different positions on the question. Ticino, the closest Canton to Italy and with the same national language, experienced the ban in a direct way due to the fact that exchanges between the two populations are frequent, mostly on a daily basis, for reasons of work or pleasure.

The regulatory situation in Ticino developed in seven main steps. In **October 2004** a proposal on a smoking ban law was presented for the first time in parliament. Three months later, in **January 2005**, the smoking ban came into force in Italy. After a year of intense debate in parliament the original proposal of a smoking ban law was passed in **October 2005**. But one political party (Lega) was strongly opposed to the law and collected enough signatures to have a referendum. After six months, in **March 2006**, the referendum took place and around 79% of the population voted in favor of the ban. In **April 2006** the law came into force and envisaged a grace period of one year for owners of public places to adapt their premises. The law[2] definitively came into force in **April 2007**.

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[2] "Regolamento della legge sugli esercizi pubblici del 3 dicembre 1996; modifica 11 aprile 2006.

Art. 47u (nuovo)
Cpv 1 Gli spazi o i locali adibiti ai fumatori di cui all'art. 57 della legge:

a) possono avere una capienza massima pari a 1/3 della superficie totale dei locali d'esercizio, escluso il servizio d'alloggio;

b) devono essere dotati di impianti di ventilazione meccanici conformi alle Norme svizzere SN SIA V382/1 e V382/3, provvisti di filtri di classe HEPA certificati EN 1822 commisurati alla loro volumetria;

c) devono essere delimitati da pareti a tutt'altezza su tutti i lati e dotati di una porta a chiusura automatica.

Cpv 2 In ogni caso non possono essere messi a disposizione dei fumatori gli spazi abituali di un esercizio pubblico.

Art. 47v (nuovo)
La messa in funzione di locali o spazi adibiti ai fumatori deve essere preceduta dalla presentazione all'ufficio dei permessi di una dichiarazione di uno specialista di impianti di ventilazione dalla quale risulti la conformità dell'impianto a quanto stabilito dall'art. 47u cpv. 1 lett. b).

La presente modifica di regolamento è pubblicata nel Bollettino delle leggi e degli atti esecutivi ed entra in vigore il 12 aprile 2006

1.3 Framing smoking

In table 0.1 I defined the main frame and players involved in the historical discussion on smoking discussed in this section, making a reconstruction based on research on the smoking debate over the past years. The division between subjects is clear-cut, as required in any model, but always deviates a little from reality. For example, it is clearly an approximation to classify physicians in a single group because, as illustrated above, they certainly did not always share the same opinion; at the beginning they were divided, some agreed with tobacco industries and even starred in their advertising campaigns. However, the table does depict the main arguments of the various groups and in this way they are fully represented.

Historical framing evolution about smoking
Protagonists

Physicians	Movements against smoking	Political figures	Tobacco Industry	t
			Pleasure	
Morality	Morality	Economical benefits	Charm	1880/1930
Health Riskiness	Health Riskiness		Freedom	
			Beauty	
Health Riskiness	Health Riskiness	Economical benefits	Health benefits	1930/1950
	Nonsmokers rights			
Health Riskiness	Health Riskiness	Health Riskiness	Health benefits	1950/1970
			Paternalistic state	
Health Riskiness	Health Riskiness	Health Riskiness	Health Riskiness	1970/Now
	Need for a Health policy			

Legend
Most prominent frame —
Secondary frame —
Mostly ignored frame —

Graph 1.1 Historical framing in the smoking debate

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The other point is historical representation, the division of the time line into periods intends to roughly indicate the various stages of the debate linked to specific historical events (such as scientific studies or legislative events). The frames are obviously not exhaustive but they do give an idea of the evolving process and of the positions of the players.

The model is useful in that it is the tool that represents the background for the empirical case study. The assumption I made at the very beginning of the chapter was a change in the perception and description of smoking, then a social construction of the idea of smoking. The current legislative approaches to smoking are just another move in the direction of a change in the social perception. The framing method can help understand how it is possible to approach a topic from many different angles. The following chapter will theoretically establish the next steps of this dissertation.

Chapter 2. Theoretical Background: on Frames and Framing

The aim of the empirical case study discussed in this thesis, which will be achieved through reconstruction of the public discourse, is to understand the dynamics underlying the acceptance of a smoking ban in Switzerland. In the first part of the study I will delineate the social construction of the smoking ban, with the related advantages and disadvantages, expectations and fears. To understand the debate it may be useful to investigate all the possible interpretations that can be given to the subject and for this reason it is important to examine the framing theory, an approach commonly used in the twentieth century. So, the central question of this first chapter is: what are frames?

The object of a representation can be seen from different angles. In the same way some attributes of the object may have more significance than others. While agenda-setting involves studying the *salient* objects communicated by mass media, the framing theory observes the *salient* attributes of these objects (McCombs & Llamas, 1997).

How is the issue presented? What are the most salient characteristics? This is just one of the contemporary definitions of framing and the difference in conceptualization is perhaps due to the diverse applications that have been made of the theory.

In the following section the framing theory is studied from an historical perspective, giving rise to another question: different definitions sometimes depend on the interest and focus of the study. Framing is a wide-ranging concept that has much to do, above all in communication sciences, with the effects of mass media and this is why the *incipit* of this chapter cites McCombs and Llamas. However, in general, framing has more to do with human beings, it is a matter of interpretation, and this leads us to Gadamer's hermeneutics of "life is interpreting".

In this chapter I will illustrate different approaches to the framing theory, defined by Entman (1993) as "a scattered conceptualization", and I will analyze three current accredited viewpoints.

After describing approaches that attempt to unify the framing theory, I will present D'Angelo's position that aims to define a framing program rather than a unique paradigm.

While the first five sections are purely theoretical, discussing the main goals of framing theory studies, the final three deal much more with practical applications, with special

focus on health communication. Some conclusive remarks will then be made on the limits of the theory and its relevance to the nicotine debate.

Meta-discussion on the creation of a smoking ban

Generally speaking a law, and in the case of this dissertation a smoking ban law, is a prime example of an institutional fact. Its roots are in a restricted community - an institution (the Parliament) - whose duty is to collectively create rules that modify human behaviour and protect public health. Once a law has come into effect, it then has to become an integral part of human nature through an "acceptance-acknowledgment-recognition" process within a wider community and not only within the restricted institution with legislative power.

When attempting to define social reality one of the most quoted philosophers is J. R. Searle who, to answer this question, defined the construction of a social process. His underlying assumption is realism; "the world exists independently of our representation of it" (Searle 1995). Nevertheless, social realities exist "only because we believe them to exist" (Searle 1995) and are made up of human beings; indeed, we could say that a social reality cannot exist without human thought. This construction envisages three conditions: *collective intentionality, assignment of function (status function) and the constitutive rule: X counts as Y in C.*

The creation of a new social fact such as the smoking ban, and others aimed at health protection, raises questions about *health literacy*. When we imagine health literacy we assume that personal experiences of health and health promotion campaigns will modify individual culture but perhaps a social fact such as a law has a growing impact on personal health literacy; by nature it requires circular "acceptance-acknowledgement-agreement" processes and, moreover, when it becomes a social fact it translates into personal experience. Initially, a smoking ban was mooted by just a few people, the proposal was then taken up by the majority yet it is still a much debated issue. After the introduction of the smoking ban it will no longer be a point of discussion but a new social fact, a new way of framing smoking.

2.1 A brief history of framing

Historically speaking the term framing and its conceptualization dates back to 1932 and was used for the first time in cognitive psychology by Bartlett.

Between 1955 and 1972 Bateson began to use the term *bracketing*, associated with *framing*, in a similar way to that adopted by Erving Goffman, probably the most famous

author on framing and whose approach to the subject is a reference point for all following studies. However, after Goffman, all references to framing change meaning (Van Gorp 2007). In *Frame Analysis* (1974) Goffman, true to his situational perspective, starts from the question of the individual in a situation: what's happening here? A person needs to refer to one or more structures or schemata when faced with an event in order to interpret and then understand it. The structure, both natural and social, is a sort of key.

While Goffman is considered one of the most influential sociologists on this topic, Kahneman and Tversky's prospect theory for economics (1979) is probably the most widely used in various disciplines and, specifically, in health communication.

From the 1970s framing began to gain popularity and interest spread from economics to linguistics, via political and health communication. In the same period as Kahneman and Tversky, a linguistics' researcher, Tannen, began to use the term framing in his field of studies. One year earlier an even more specific field, social-movements research, saw Tuchman as the first to adopt frame analysis.

In 1980 Gitlin introduced the concept of framing in the study of political communication. This field remains one of the most interested in the study of framing; several applied studies concern political matters: policy campaigns, propaganda etc.

Almost twenty years later, in 1999, another research field became interested in the framing theory: Hallahan and his public relations studies.

One of the last fields to adopt the term framing is close to the subject of this thesis: health communication. In 1997 Rothman and Salovey were the first to use framing in the health field, adopting Kahneman and Tversky's approach.

As mentioned above, this demonstrates the fact that the concept of framing is closely linked to human behaviour and attitude. For this reason it is very difficult to find a single, all-encompassing conceptualization in the literature. The interests of the various fields differ and the framing process is so wide and complex that it is difficult, and maybe not even interesting for specific research fields, to study the overall dynamics. The term framing process (Van Gorp 2007) is perhaps less familiar and not so widely used but it gives the idea of a dynamic concept, which in some cases is the reason for the confusion in the definition of a unique concept. The following sections discuss researchers' attempts to unite the framing theory a single all-embracing definition.

2.2 Entman: the attempt to create a unique paradigm

In a 1993 article Entman deals with the framing theory as a scattered, confused conceptualization. His assumption is that "despite its omnipresence across social sciences and humanities, nowhere is there a general statement of the framing theory that shows exactly how frames become embedded within and make themselves manifest in a text, or how framing influences thinking". The goal of his work was to identify commonalities in the different approaches.

At the beginning of his discussion he points out the main elements involved in framing: *selection* and *salience*. To frame is "to select some aspects of a perceived reality and make them more salient in a communication text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation for the item described". Frames can pursue four aims: define problems, diagnose causes, make moral judgments and suggest remedies. It is possible to find groups of sentences without framing at all, while it is also possible to find a sentence in which more than one function is represented.

Following the classical Yale Model, in which Hovland and his colleagues (Hovland, Janis, and Kelley, 1953) formally conceptualized the factors that characterize an exchange of information between two subjects, we can argue what the possible locations of the frames are. Hovland claims that persuasion power depends on "**who says what to whom**." The persuasiveness of the message is a function of "**who**" – the characteristics of the source (e.g. credibility), "**what**" – the nature of the message (e.g. quality of argument), and "**to whom**" – the characteristics of the audience (e.g. intelligence).

According to this schema Entman claims that we can have at least four locations for frames: communicator, text, receiver and culture. In the words of Scheufele, communicators "make conscious or unconscious framing judgements in deciding what to say, guided by frames that organize their belief systems" (Entman 1993). The text contains frames, usually expressed by keywords, rhetorical images or other figures. As regards the receiver, the frames that guide her/his judgement can either be similar or dissimilar to the frames communicated by the text. Finally, culture is the sum of all the commonly invoked frames.

Citing Fiske and Taylor (1991), Entman explains the function of frames using the notion of salience, meaning: "making a piece of information more noticeable, meaningful or memorable to the audience". If we heighten salience it is more probable that the audience will receive the information, discern meaning, process and then memorize it.

There are three ways of heightening the salience of information: placement, repetition or association with culturally familiar symbols. Even although these 'strategies' are commonly used and probably make lot of sense, they don't always guarantee the result as this will depend to a great extent on the mind of the receiver: for example, a less visible frame in a text may become the most important for a reader because of his beliefs (thus her/his pre-existing personal frames). This demonstrates the fact that, because salience is a product of the text and the receiver, the presence of frames in text does not guarantee the effect on the audience (Entman 1989; Graber, 1988).

Kahneman and Tversky demonstrate with their experiments that "frames select and call attention to particular aspects of the reality described, which logically means that frames simultaneously direct attention away from other aspects". In a similar way, Edelman highlights the way frames exert their power through selective description and omission of the feature of a situation "the social world is …a kaleidoscope of potential realities, any of which can be readily evoked by altering the ways in which observations are framed and categorized" (1993).

Entman concludes his attempt to unify framing theories by analyzing the possible benefits for other sciences and methodologies. The most important aspect of this for this dissertation is the contribution to content analysis "The major task of determining textual meaning should be to identify and describe frames; content analysis informed by a theory of framing would avoid treating all negative or positive term utterances as equally salient and influential. […] Unguided by a framing paradigm, content analysis may often yield data that misrepresent the media messages that most audience members are actually picking up". We can agree with that, it is an interesting point. The risk of applying this observation is that it could juxtapose the concept of framing with a pre-existing, already serviceable methodology. If this process becomes just an ideal association of theory and practice then the result of content analysis will remain the same.

2.3 Scheufele's unifying perspective: Media and Individual frames as dependent and independent variables

A distinction can be made between the concept of framing and other closely related concepts in terms of mass media effects. Scheufele (1999) identifies four stages based on the assumption that the mass media have consequential effects (McQuail). The final stage, which is the present, "is characterized by 'social constructivism'… On the one hand, mass media have a considerable impact in constructing social reality, that is, 'by *framing images of reality*…in a predictable and patterned way' (McQuail, 1994). On the other hand, media effects are limited by the interaction between mass media and receivers. 'Media discourse is part of the process by which individuals construct meaning, and public opinion is part of the process by which journalists…develop and crystallize meaning in public discourse' (Gamson & Modigliani, 1989)" (Scheufele, 1999). The concept of framing must be considered from this perspective of social constructivism.

When reporting stories and facts the mass media organize them in frames that the public then uses for discussion. Readers are affected by framing processes to different degrees and can process the information in three ways: actively, reflectively and selectively. Kosicki & McLeod (1990) define active processing as the process by which the reader considers the information provided by the mass media incomplete and tries to supplement the information by consulting other sources. Reflective integrators compare what they receive from mass media through discussion with others. Finally, selective scanners are those readers who only look in the mass media for things they consider relevant to them.

This distinction is even more interesting in the conceptualization of framing as a theory of media effects, Scheufele's objective in his 1999 article.
But seeing framing as a theory of media effects gives rise to a supposition: if the framing concept is associated with both presentation and comprehension, shouldn't we distinguish two concepts? Kinder and Sanders (1990) called these two concepts Media and Individual frames, pointing out that the former can be considered "devices embedded in political discourse" while the latter refer to the "internal structures of the mind". The distinction between media and individual frames is shared by several researchers.

Media frames are the way in which the news is organized. Information is made up of events which at first glance may appear to be disconnected. The fact that the events are then presented with an interpretation makes both the production of mass media messages

and their reading more meaningful (Gamson & Modigliani, 1987). Tuchman (1978) states "The news frame organizes everyday reality and the news frame is part and parcel of everyday reality… [it] is an essential feature of news". Making mass media messages more meaningful means helping journalists identify and classify the information (Scheufele, 1999). This process is made both consciously or unconsciously by the communicators (Gamson 1989). In practical terms, journalists provide schema for the interpretation of events; as Entman (1993) suggests, this is possible using two factors: *selection* and *salience*. "To frame is to select some aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation and/or treatment recommendation".

This final quotation leads directly to the definition of *individual frames*. Entman (1993) defines them as "mentally stored clusters of ideas that guide individuals' processing of information". Moreover, Schuefele (1999) distinguishes between global and long-term political views and short-term, issue-related frames of reference. The former are the result of personal characteristics and are difficult to influence. The latter "can have a significant impact on perceiving, organizing, and interpreting incoming information and on drawing inferences from that information".

With these definitions and classifications Scheufele's aim is to devise a scheme in which to position all past studies on framing. The main dimension of the scheme is the distinction between frames as *independent* and *dependent* variables. In the case of frames as dependent variables, past studies investigated which factors can create and modify both media and individual frames. On the contrary, when studies focused on frames as independent variables, attention focused on the effects of the frame itself and this is closely related to individual frames.

But Scheufele's scheme is based on two dimensions: media and individual frames with frames as dependent and independent variables. This schematization resulted in the following table:

Figure 2.1 Scheufele's classification of framing studies

Table 1. Typology of Framing Research

	Studies Examining Frames as . . .	
	Dependent Variables	Independent Variables
Studies Examining Frames as . . .		
Media Frames	Tuchman (1978) Bennett (1991) Edelman (1993)	Pan and Kosicki (1993) Entman (1993) Huang (1996)
Individual Frames	Iyengar (1987, 1989, 1991) Gamson (1992b) Price et al. (1995, 1996, 1997) Huang (1996)	Snow et al. (1986) Snow and Bedford (1988, 1992) Entman and Rojecki (1993) Nelson et al. (1997)

Source: Scheufele (1999)

Scheufele created this four cell table for three purposes. Firstly, "it classifies existing research on framing with respect to the way in which it has conceptualized frames and the relationships between frames and other variables. Specifically, it permits a direct comparison of findings both within cells and between cells". Secondly, it allows "judgements" to be made on previous studies and we can say whether or not they meet the requirements of each cell.

Scheufele singles out the following six questions in relation to his typologies. There are two questions about media frames as dependent variables that investigate which factors influence the journalists' frame and how this process works. Studies into media frames as independent variables mainly try to discover which media frames influence an audience's perception. Studies on individual frames as dependent variables aim to identify the factors that affect individual frames and the way in which the audience can "resist" media frames. The last cell includes studies that deal with how the individual frame influences an individual's perception of issues.

The third advantage of processing the typology in accordance with the table above is that "the typology goes beyond hypothesis testing in relatively isolated or eclectic studies in different disciplines to develop a 'common understanding of the concept of framing' (Entman, 1993)" (Scheufele, 1999).

As Scheufele himself states, his study is a step toward Entman's approach, explained in the following section.

2.4 Framing and culture: Van Gorp's perspective

Van Gorp's approach is essentially constructionist. In an essay published in March 2007 he attempts to "define the characteristics of frames in the context of the prediction and interpretation of news, so as to give the concept a more distinctive meaning". He considers framing as a bridge between cognition and culture (Gamson, Croteau, Hownes & Sasson 1992), thus claiming that it is not a question of cognition alone. He processes the work of others scientists on framing, arguing that the constructionist approach is the most complete. Social constructionism "is concerned with the creation and institutionalization of reality in social interaction" hence saying that the audience actively participates in the construction of meaning. In this scenario frames are "conceptual tools which media and individuals rely on to convey, interpret and evaluate information".

Van Gorp then investigates the structure and characteristics of frames and framing. In line with the framing literature, he notes that frames occur at various points in the communication process: from the minds of media-makers to the mind of the audience, from media content to culture. Frames are almost everywhere but the difficulty lies in identifying them and understanding where this perpetual process starts.

The close connection with culture is immediately presented by Goffman who considers frames and their logic as independent from the individual and, instead, linked to culture. At this point it is essential to provide a definition of culture; Van Gorp says "culture refers to an organized set of beliefs, codes, myths, stereotypes, values, norms, frames and so forth that are shared in the collective memory of a group or society". This reinforces Goffman's perspective because culture is not the property of a single individual. He uses the example of a chess game and pedestrian traffic, saying that they cannot be invented by just one person. This reflection leads us to back to Searle's essay on Construction of Social reality (1995), in which he counts collective intentionality as one of the core parts of social reality, the whole of all non-natural phenomena.

Van Gorp's contribution is based on that assumption on culture. The assumption gives rise to six focal points in theorizing framing. The first regards the fact that the idea of a cultural stock of frames leads to the conclusion that there are more frames than those currently used. The second point is that the frame is not limited only to media messages.

Media content and frames are independent from each other. The third premise is that, starting from the point of view that frames are related to cultural phenomena, their use seems to be normal and so the social construction process is invisible. This point again leads back to Searle who defined the mechanism underlying social reality as an invisible ontology. The fourth premise is the distinction between frames and schemata. Schemata are mental structures, they are collections of organized knowledge, developed gradually and related to personal experience. Instead, frames are stable in culture. The fifth premise is closely related to the fourth: the perpetual nature of frames means overall that they are more or less stable over time. The final point of this first discussion on framing is the assumption that the essence of framing is in social interaction.

These premises represent the starting point for a detailed description of frames. The second part of the essay will define the constituent elements of a frame package. These elements are part of culture and so, as mentioned above, it is difficult to perceive them. However, they are present in the communicative message, they are embedded in the content. Van Gorp states that a frame package is "a cluster of logical organized devices that functions as an identity kit for a frame". This cluster is then divided into three parts: manifest framing devices, manifest or latent reasoning devices and an implicit cultural phenomenon that displays the package as a whole. There are various manifest framing devices: word choice, metaphors, examples, descriptions, arguments and visual images, all held together by the actual frame, in which a cultural phenomenon acts as the central theme such as archetype, mythical figure, value and narrative. Manifest or latent reasoning devices are explicit and implicit statements that develop, in order of time, into justification, causes and consequences. Those devices are related to the more common distinction of four frame functions defined by Entman (1993): problem definition, causal interpretation, moral evaluation and treatment recommendation.

Even although Van Gorp distinguishes three parts in the frame package, the framing mechanism remains unclear. Framing is a form of meta-communication, readers assign a meaning to the text not only because of the concrete information, but also based on information between the lines. This is perhaps the main reason why framing is so complex and for Van Gorp this complexity needs to be separated from agenda-setting and priming phenomena. According to Scheufele (1999), media content represents both a dependent and an independent variable, but in his case individual frames are not mentioned, and to better understand this choice we have to look at his premises. He claims that there is a profound difference between frame and issue. An issue can be seen from different angles or in different frames and a single frame can cover diverse issues. By minimizing framing to a sort of second-level agenda-setting we risk limiting the concept because, even if we consider various attributes such as framing devices, how can we then explain that these are held together within a frame package? Retuning to the

initial definition of framing as a bridge, Van Gorp points out by referring to framing from a constructionist approach he takes into account also news production, which is not only a cognitive process because many other structural factors influence media content.

This theory requires practical application, defining some methodological implications that help answer the question "how can frames and their relationship with journalistic practices and individual schemata be studied reliably?". The first step consists in reconstructing "frames embedded in the stimuli, only after that could it be possible to compare the receiver's interpretation with the frame package and the core frame". And this first step can be taken by identifying framing devices in text and reasoning devices that are also part of media content and discourse. The methods for this process are mainly discourse analysis and classical quantitative content analysis. The problem of measuring framing structures is the most important: for example, one of the major risks for the reliability of a content analysis is the will to study latent content. Yet Van Gorp claims that it is possible to avoid this by using the heuristic principle "a series of manifest variables can represent latent content". He makes two suggestions for correct design: the choice of a maximum of two frames and an accurate inductive phase in which the frame packages are organized in a matrix.

2.5 D'Angelo: a unifying process instead of a unifying paradigm

These attempts to create a core identity of framing research are useful as they help build a picture of the evolution of research and then reflect on the limits and possibilities of the concept. Frame, framing, framework are three different terms that are often used with the same meaning. The task of creating a *unified paradigm* starts with the need to create a standardized terminology, yet even if we decide which term to use the problem remains conceptual. D'Angelo (2002) replies to Entman's essay (1993) taking a completely different position: he states that there is not and there shouldn't be a single paradigm of framing. As explained in the first section, framing is a process that deals with human beings, it is a highly complex and unique process that involves attitudes, knowledge and other factors. This is why scientists are interested in it and why they have different points of view: they focus their attention on different "parts" of the process. Each research field refers to a model, sometimes shared with or borrowed from other fields. The model studies a part of the framing process; to quote Babrow and Dervin, D'Angelo (2002) "the vitality and success of communication ought to be gauged vis-à-vis how well researchers coordinate theories toward the end of elaborating and understanding complex communication processes". This view leads them to claim in their conclusion that "framing researchers have worked 'together' to build knowledge about a complex

process. The mission of the communication discipline is well served by what they have so far accomplished".

This is why D'Angelo does not see the creation of a unified paradigm either as a need or as possible and useful. Even if the limits of attempts at unification are now clear and explained by D'Angelo, we need a model for such a complex framing process. He agrees both with Entman and with many other scientists who say that the core of the news framing research *program* (he uses this word in opposition to *paradigm*) is reflected in four empirical goals, pursued by various studies. The first concerns the identification of thematic units called frames. The second is the investigation of the antecedent conditions that produce frames, while the third is the examination of the way in which news frames activate and interact with an individual's prior knowledge to affect interpretation and judgement. The final goal is to examine the way in which news frames shape social-level processes such as public opinion and policy issue debates. These goals can be associated with Entman's ideas on framing locations in the communication process: communicator, text, receiver and culture.

In D'Angelo's model, the communicator part is the content of the frames: news frames are themes within news stories, conveyed by various framing devices (Pan & Kosicki 1993). The text part are the keys, they are first causes that shape various levels of reality (Gamson & Modigliani 1989, Entman 1993, Goffman 1974). As regards receivers the main interest is the effect of framing on the audience: "news frames interact with the cognitive and social behaviours that they have shaped in the first place" (D'Angelo 2002), so they deal with internal structures of the mind. Finally, as concerns common culture, framing shapes dialogue on public issues which then become part of the culture.

Focusing on framing and receivers, we can find many studies that investigate the concept in depth. D'Angelo underlines that there are three main paradigms involved in these studies: cognitive, critical and constructionist. These paradigms can be identified in the approaches previously presented and also in the studies that will be presented below. The reason for this phenomenon is that researchers blend ideas from different paradigms, even although "at the end it is difficult to examine frames and framing effects under the simultaneous guidance of more than one paradigmatic image" (D'Angelo 2002).

Concluding his concept, D'Angelo proposes a multi-paradigmatic view of a news framing research program, summed up in the following schema.

Figure 2.2 D'Angelo's model of the news framing process
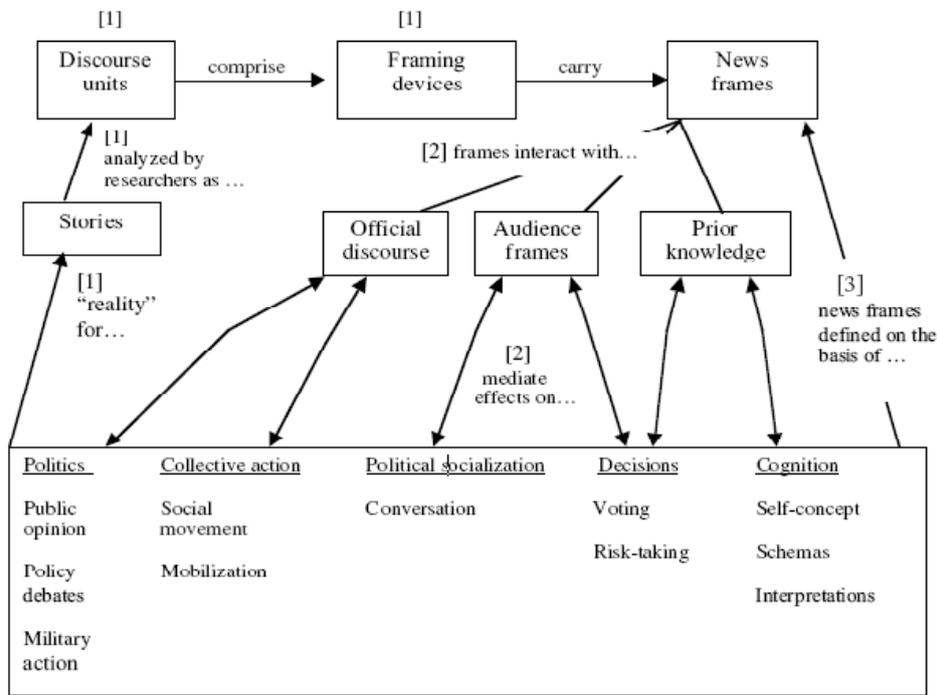
Note. [1] = Frame construction flow; [2] = Framing effects flow; [3] = Frame definition flow.

Source: D'Angelo (2002)

This model is simply another attempt to draw an absolute and complete picture of research on framing. It shares many assumptions with Entman but its main goal is to demonstrate the coexistence of more than one paradigm.

The conclusion that can be drawn from this review of framing analysis literature is that there are multiple models used for a range of different purposes. The next step is to look at empirical studies in order to find out what has already been done and what the advantages of framing the theoretical approach are.

2.6 The framing theory in this dissertation

As explained above, the framing theory is complex and can be divided into different components depending on the purpose of the research. What I have obtained from this literature review are the definitions and indications to use to identify framing. Entman highlights that the elements involved in framing are selection and salience. These two aspects express the essence of frame and can be found in communicator, text, receiver

and culture. Studying newspaper articles, as I will do in the following chapters, means focusing on texts. Salience is then a product of the text and receiver and the effects are once again unpredictable. However, describing the frames in a text does not mean predicting the effects of these also because, in my opinion, they will always be unpredictable, even if we combine text analysis with receiver interviews. Making a simpler division into Individual and Media frames, as proposed by Scheufele, I will focus on the latter which represent the way the news is organized.

Bearing in mind the aim of my empirical case study, the constructivist definitions of both Scheufele and Van Gorp show that the framing approach is particularly suited to my research. "On the one hand, the mass media have a strong impact in the construction of social reality, that is, 'by framing images of reality'… in a predictable and patterned way" (MyQuail 1994). As explained in chapter 1, my theory is that smoking is a socially constructed concept, framed in different ways by the various stakeholders. Van Gorp's third premise is based on the assumption that frames are related to cultural phenomena, their use appears to be normal and so the process of social construction is invisible. This is how social constructions are built naturally, with an invisible ontology, as Searle says. However, by using framing devices to shed light on the frames in news, this invisible ontology can be revealed. The best methods to discover these devices are discourse analysis and content analysis.

Bearing in mind D'Angelo's research, my dissertation focuses on how news frames shape social-level processes such as policy issue debates. Again, I am not interested in the effects of those news frames because these depend on the interaction with the internal structure of the receiver's mind, as D'Angelo himself says. However, studying frames in news does not exclude the internal structure of mind or, at least, it does not exclude the minds of the journalists or of the people giving an interview or writing a letter. This means that I have to take into account state of mind in the creation of frames rather than the effects and perceptions of the receivers, who again will process and produce new news frames in a perpetual process that contributes to creating culture.

2.7 Applying the framing theory

Study of the framing literature and acceptance of D'Angelo's point of view (2002) enables identification of four main goals. Each study can pursue one or more of these goals but, even if the combinations can create new perspectives, the following four objectives are exhaustive. It should be remembered that for reasons of scientific sustainability the framing process can be ideally divided into steps or components but that in the real world there is no distinction. That is to say, even if we want to break

down a step in order to better understand a part of the entire phenomenon, we must always bear in mind that the origins of this single component remain within the whole.

The first objective is to identify framing effects. This type of study falls within the wider-ranging field of media effects studies. When asking what the audience perceives from news and news discourse the main assumption is that receiver is not immune to the content transmitted by the media. Starting from this point and assuming that messages have one or more interpretations of reality, the next question is: what does the receiver accept, both consciously and unconsciously, as his point of view on the issue? How does he judge reality after his knowledge is enriched by framed news? In his table Scheufele (1999) would place these studies under studies on individual frames as dependent variables.

These studies adopt two main approaches: the first concerns the direct manipulation of texts (in the broader meaning of Entman's "text"), while the second deals with the use of real news text. Both approaches are used in combination with classical methods in communication sciences to investigate public opinion; i.e. interviews. Interviews can be both oral or written and analyzed either quantitatively or qualitatively. Iyengar developed a series of experimental studies to understand the influence of frames on the audience. One of the most well-known (Iyengar 1987) is an experimental study on explanatory knowledge. A sample group was shown news on three political issues: poverty, terrorism and unemployment. The sample group's knowledge was then tested to see if they could explain political affairs and if they were influenced or not by media frames. Iyengar concluded that while poverty and terrorism are strictly media dependent, the population's opinion on unemployment was media independent. His conclusion was, however, that there is a close connection between media frames and individual frames and that this always depends on the topic but that it is important to document these effects mainly because perception and the influence on the audience's mind affect judgements and behaviours.

The fact that the effect on public opinion varies from issue to issue can be traced back to Ball-Rokeach and DeFleur's more general "dependency theory". This theory, mentioned by Gamson and Modigliani (1989) in their essay on nuclear power, asserts that there is a difference between issues where people have more experience and others where the audience has less experience. In the first case media meanings have to address personal and collective experience while in the second case it is difficult to judge media frames on the base of experiential knowledge. The essay on nuclear power comprises a content analysis covering a period of around forty years and a survey of public opinion on nuclear power. The study concludes that from the point of view of framing, the audience has a shared frame on nuclear power but that it is probably a superficial vision of the

issue, based on the construction *ad hoc* of questionnaire responses. They need to study that phenomenon in more detail, using a constructionist approach; that is, spelling out the audience's interpretive process.

Studies on the direct manipulation of texts are experimental, based on a precise framing model. A commonly used model, perhaps due to its clarity and success, is the gain and loss one, borrowed from Tversky and Kahneman's prospect theory. Some examples of these studies can be found in health communication literature. In this field the main goal is often persuasion using prevention based messages. For this purpose Shen and Dillard (2007) try to measure the effect of different behavioural approaches and message framing in the processing of health messages. The prospect theory is also adopted in Rothman and Salovey's research (1997) which tests the effect of benefits and costs of health communication information.

In the case of studies using manipulated text, prior knowledge is needed: what are the more effective frame devices? Frame devices are the only tool that can be used to try to create an effective text, where effective means a text that remains in the audience's memory and can affect minds and judgements.

The second goal in framing studies regards the communicator side and how frames are constructed. Because communicators live in their own culture, because they have their own experience, knowledge and interpretation of reality, their mechanism for producing and representing frames in news is not always conscious. These studies can be placed in Scheufele's table under media frames as a dependent variable. These studies are linked to D'Angelo's critical paradigm where the claim is "that frames are the outcome of newsgathering routines by which journalists convey information about issues and events from the perspective of values held by political and economic elites". D'Angelo claims that the main representatives of this school of thought are Becker (1984), Hackett (1984), Reese and Buckalew. The representatives of the constructionist approach described by D'Angelo (Gamson & Modigliani) also investigate the journalists' side. Constructionists claim "that journalists are information processors who create 'interpretive packages' of the positions of politically invested 'sponsors' in order to both reflect and add to the 'issue culture' of the topic."

The third goal is to understand the development and presentation of frames in the news. Framing is in the text and can be identified by means of framing devices. Although this is undoubtedly the only way to reveal and identify frames, the process is not so simple. Starting from the point of view that framing is an interpretation of reality, the keys to understanding the meaning of events are spread with every means. They are in the choice of images and before that in the point of view of camera and video camera that capture the image itself. They are in choice of words, in the rhetorical figures used and

also between the lines of a text. They can be identified through accurate observation of text and the related occurrence of patterns. The best way to do this is to have a long-term view so that changes and patterns can be determined.

Reconstruction of the framing history of a topic, event or field of social interest is useful in describing society. This is rarely a self-contained process; it is usually accompanied by a study of the effects on the audience or by an investigation of the origin of frames themselves.

After providing an extensive classification of framing devices, Pan & Kosicki (1993) trace the structural elements of the history of the abortion debate, published in the Los Angeles Times. Van Gorp (2005) performed a content analysis on the theme of asylum seekers in Belgium and produced a matrix of the asylum issue frames with their representative reasoning and framing devices. Brosius and Eps (1995), on the theory of changes in journalists schemata and interpretive frames following key events and social development, analyze topics found in two German newspapers in a three year period. The work by Gamson and Modigliani (1989) mentioned above studies the frame packages present in the nuclear power discourse on the occasion of three momentous events: Hiroshima, TMI and Chernobyl.

The final purpose regards the identification of frames in culture. Culture consists of different frames; it is in culture that individuals live and construct news presentation as journalists and judgements as audience. To better understand the integration of framing in culture it is necessary to have a long-term perspective and also an awareness of the effects on the audience and on the news construction process of journalists. In the first sections I wrote that the problem of the framing process is that we don't know its origins and we will never know its outcome. This point of view could be considered extremely constructionist but the fact is that frames are created and then in some ways change, even although over a long period of time. Let us imagine a beginning and an end to culture itself. At this point a definition of culture is necessary but extremely difficult. One thing we can say for sure is that the previous three goals are encapsulated in the last one. To explain better, to achieve the aims described above it is important to understand the culture we are rooted in. However, the best way to understand this process is to study some practical examples because the definition of culture in general is too complicated: if we look at the foundation of a small group, an institution, a "portion of humanities" then we can try to draw a preliminary picture of a specific culture that represents a domain-dependent social reality. The fact that I have mentioned Gamson and Modigliani's study on Nuclear Power (1989) many times makes sense if we accept that they are two of the main representatives of framing analysis and if I declare my predisposition for the constructionist approach. It is not surprising that their study has to

do with that last goal description. Their approach is constructionist so their relationship with culture is the prevailing idea of their works on framing. In their paper on nuclear power (1989) their aim is not to talk about the effects of framing, instead, they state that "each system interacts with the other: media discourse is part of the process by which individuals construct meaning, and public opinion is part of the process by which journalists and other cultural entrepreneurs develop and crystallize meaning in public discourse". Their assumption is that "nuclear power, like every policy issue, has a culture" and starting from this the aim of their study is to reconstruct this culture over time, collecting media content and public opinion.

2.8 Framing health communication

This section discusses some approaches to framing found in health communication literature. Nowadays, the main fields of application of framing are apparently politics and economics but health communication is also a potentially interesting one. The introduction of the framing theory in health communication is fairly recent; the concept was adopted in this field just ten years ago.

As illustrated in the section on the history of framing, Rothman and Salovey's (1997) could be considered the first attempt to systematically use the framing concept. They borrowed Tversky and Kahneman's model (prospect theory) to understand whether the framing of health messages would be useful or not in terms of gain and loss. Their article was oriented towards prevention: the aim of understanding the effect of these frames on the audience was to develop effective and efficient health communication. The ultimate goal of this study was to find a way to stimulate patients, to use frames in communication to change behaviour. In this sense it is a study on framing effects where the effects to obtain are at a high level. What they discover is that even if the assimilation of frames by the audience is a necessary condition, it is not sufficient to cause an impact on behaviour. Receivers must perceive the issue in terms of gain and loss and then also have to perceive the adoption of an alternative behaviour in terms of gain and loss. The authors identified three fundamental steps in the decision-taking process: "First the frame advocated by a particular message must be integrated into a person's representation of the health issue, so the message should be processed systematically. Second, the particular perspective advocated by the framed appeal must be adopted by the perceiver [...] Finally even when a gain or loss frame has been adopted and integrated into an individual's representation, its expected influence on behaviour cannot be determined without the investigator first identifying the degree to which the individual's adoption of the behaviour in question is perceived to be risky." Rothman and

Salovey then refer to past studies (Levin & Chapman 1990, 1993) that applied Tversky and Kahneman's model to health-related decisions. They observed that in health communication there are also other important features in the decision-taking process such as the context in which the messages are delivered. That is to say, the application of the prospect theory in the health communication field seems to encounter more variables than the study of framed options in hypothetical decisions.

In 2001 Priscilla Murphy published an essay on framing in the nicotine debate. Using the cultural theory of risk she studied congressional testimony concerning regulation of tobacco advertising. The three representative factions were industry, government and lay activists and she divided the disputants into entrepreneurial, bureaucratic and egalitarian communities. The aim of her study was to find a starting point for negotiation between the interest groups. This is not an in-depth study on framing, it only starts with the assumption that the three kind of witnesses would have used different frames. However, the methodology used was really interesting: she used a computer-based analysis of the testimony to find words and patterns of association between words. This method could be reliable because it is based on manifest content. The interesting conclusion of Murphy's study is that all three groups studied shared fundamental policy concerns about specific topics such as cigarette advertising and smoking among youths. These represent an important common basis for the construction and negotiation of a policy accepted by each group. As regards the diversities of the groups, their cultural classification of policy and the study of their clusters can help policymakers to set a context for shared work between the groups.

Generally speaking, the prospect theory model remains the most commonly used in the field of health communication, especially in experimental studies that manipulate texts on health promotion. This is the case of Wong and McMurray's study (2002): sample group (N = 70) of cigarette smokers were asked to read health promotion framed texts and then to fill in a pre-post message questionnaire; the study also included a three month follow up period.

A new approach to framing was adopted by Collins et al. (2006) in a study which investigated health communication in newspaper coverage in Canada. Canadian newspapers' representation of the healthcare policy debate in 2002 was analyzed and a sample of thematic news framing styles as well as a sample of episodic coverage (appearing immediately after report releases) were collected. Four classical effects were then measured: informing, agenda-setting, framing and persuading. Once again, this wasn't an in-depth study on framing and its aim was, as usual in the field of health communication, to explore framing effects. However, for the first time the health issue

framed was closer to policy than to prevention, and it was also one of the rare cases of a non-experimental study.

The final study I want to mention is Shen and Dillard's (2007). This experimental study takes into account the role of message framing combined with behavioural inhibition/approach systems. It studies how the combination of these two factors influences effect, awareness, attitude and behavioural intention. As in the previous experimental studies that used text manipulation, it also applied the principle of advantage versus disadvantage (gain vs. loss).

These studies on health communication are only remotely related to mine. However, they clearly represent the state of the art of framing in health communication. In the following section I will discuss the only study that differs from those listed above and which best suits my needs.

2.9 Framing smoking and the smoking ban

Menashe and Siegel (1998) collected a sample of around three hundred articles from the New York Times and Washington Post between December 1984 and January 1997. The aim of their study was to compare the frames of the tobacco industry and the tobacco control movement in order to develop efficient strategies against smoking. This study of health communication is closely related to policy issues. It is based on the assumption of strong framing effects on the audience and declares, in the words of Wallack (1993), "the framing of an issue forms the basis by which public policy decision are made". The authors also state that the success of arguments for and against a health policy is not due to the merits of the arguments themselves but to the success of the proponents and opponents. In this context they point out that the success of the tobacco industry is due to the frames it uses. The tobacco industry always refers to three interconnected concepts linked to personal freedom, a value which is deeply felt by the American people. Normally, the argument used against the tobacco industry is related to health but, even if health is an important value, it is less compelling than personal liberty.

Starting from this hypothesis Menashe and Siegel conducted a content analysis, producing a framing matrix in which each frame was characterized by seven aspects (Charlotte Ryan, Prime Time Activism, 1991). The results of the content analysis was of eleven tobacco interest frames versus ten tobacco control frames and identified a shift in the tobacco control movement's framing strategy over the eleven year study period. In their opinion this could represent a problem because health policies need to be sustained

by consistent and coherent communication. This is even more worrying if we consider the fact that the tobacco industry "has been steadfast in consistently targeting core human values as its dominant framing tactic". Another finding of the research is that the tobacco industry uses frames to counter-attack tobacco control frames and in this way it always tries to reframe the tobacco policy issue both for the population and for policy makers.

This study is especially interesting for this dissertation because of its analysis of a debate on health policy for smoking. Menashe and Siegel conducted a content analysis over a period of time, discovering changes in frames and the systematic opposition of frames between interest groups. These are interesting features for my case and it is also much more pertinent because the study takes place in the presence of a key event: the creation and application of a smoking ban. In this context there are two main interesting points for my case: changing frames related to changing culture.

2.10 Conclusions

From this point on I aim to discover to what extent the framing theory contributes to enrich my knowledge. What more do I need for a solid theoretical background? A long-term study is the only way to observe frame changes. It seems that no other strategies exist in the literature. I will examine the framing of a possible event, the creation of a social fact. The fact I will consider is the introduction of a smoking ban in Ticino. So, the social fact (Searle 1995) is created and, after that, the discussion continues. A question arises: do frames change significantly? My theory is that before the creation of the fact, before the key event, the main essence of framing was the values while the event itself then becomes part of framing in subsequent discussions. I will use content analysis to collect the argumentative content of the smoking ban debate. The arguments used will show how the smoking ban has been framed. My thesis will observe frames as they appear in the argumentative content which is, in Van Gorp's theory, a manifest framing device.

In the following pages I will present frames in different ways. I designed a sort of invisible taxonomy of the frames I found, they are in fact on different ontological levels. I considered arguments as framing devices. They are reconstructed from a first sample of articles into argument typologies designed in the codebook, but there is still freedom left to the coders that can reconstruct new recurrent arguments while coding. Those framing devices stand for the point of view on the smoking ban. From them we can in fact reconstruct content based frames such as: freedom, health, economic, social, legal and experience. The players of the debate will surely use more than just one content based

frame, however there will always be one predominant point of view for each actor. But there is a basic frame that I did not mentioned so far and it is the opinion about the smoking ban: in favour or against. That is surely another way of framing, which is the basis of the debate, but it does not add that much on a content level. However it happens that actors of the debate simply make statements in favour or against the ban, without asserting any specific argument. That is why to the content based frames, which are collection of arguments typologies, I added also categories for generic statements. That choice origins another level of frames, the formal one: the distinction between anecdotal and argumentative. That differentiation emerged during the analysis as an important one, because it stands for the acceptance of the ban. For that reason I underlined also this other level of frames.

The original sense of the term frames is complex. A definition is for example: *The manner or method of framing; construction, structure; constitution, nature;* and another definition is: *Mental or emotional disposition or state (more explicitly, **frame of mind, soul**, etc.).   **a.** Natural or habitual disposition, temper, turn of thought, etc. (now rare).   **b.** Temporary posture of mind, state of feeling, mood, condition of temper. **frames and feelings***: often used in religious literature of the 18th and 19th c. as a disparaging term for emotional states as a criterion of the reality of spiritual life.* (Oxford English Dictionary). This meanings recall the image of an individual horizon, there are limits in the point of view on an object. If we look at something our vision strictly depends on our point of view. Starting from this broad definition I tried to underline the most relevant frames for my dissertation. This made possible to reconstruct frames starting from arguments. An arguer makes a claim and supports it with one or more arguments. And even if his/her point of view is not immediately expressed by the claim, the reconstruction of the arguments used can help in its delineation.

Chapter 3 - Contextualization of the thesis: the DIFU project

This PhD thesis was developed within the Institute of Communication and Health and the idea for it sprang from my experience on a project explained in detail below.

3.1 Project context

Over the last few years discussion has intensified on both a national and international level as European countries have become increasingly aware of the problems of tobacco. Ireland and Italy have already enacted very restrictive no-smoking laws and Ticino, perhaps due to its geographic location, is the first canton to have insisted on introducing a smoking ban. This is the context in which the DIFU project, acronym for the smoking ban in Italian (DIvieto di FUmo), was conceived and developed.

This two-year project monitors changes in public opinion on the introduction of an unconditional no-smoking law in public buildings in Ticino and consists of a panel study of the Ticino population (about 1,000), interviewed in five waves, plus a content analysis of three years of Swiss newspaper coverage funded by the Swiss Federal Office for Public Health (BAG).

Ticino is the first canton in Switzerland to concretely discuss the proposal of a smoking ban. The Swiss Federal Office for Public Health was interested in how the discussion developed both in the media and among the population because the introduction of the ban in Ticino could also affect other Swiss cantons. For this reason the project was organized in two main parts: a panel study and a content analysis. The project lasted two years and was completed in July 2007.

3.1.1 The Panel Study

The survey comprised five waves organized as follows. The first wave (baseline) took place in July 2005, six months after the introduction of the smoking ban in neighboring Italy. The second wave was carried out immediately after Parliament passed the draft bill (October 2005). The third was conducted one month before the popular referendum on the draft bill (March 2006) while the fourth wave collected data on public opinion six months after the law came into force (October 2006). The fifth and final wave took place

after the definitive enactment of the law, at the end of the one year grace period granted to bars and restaurants to adapt their premises (June 2007).

The questionnaire consisted of between 60 and 75 items covering different aspects: knowledge about the ban, opinion about the ban (social, personal and generally-speaking), personal habits, media usage and personal data and changed from wave to wave: while the key questions remained the same, others depended on the situation in which the survey took place and others still were added and re-worked for optimum data collection. Open-ended, closed-ended and rank-ordered questions were used. The majority of the questions were closed-ended using a scale of 4 to 7.

For the telephone interviews we used 16 interviewers who contacted people in the sample over a one month period (from 5 p.m. to 9 p.m.) and who were monitored by laboratory staff. We used the CATI (Computer Aided Telephone Interviewing) system, meaning that the interviews were piloted by the software (dimensions) and that the interviewers were directed by the computer in their reading of the questionnaire. This technique is useful because it helps avoid possible errors and standardizes the interviewing method.

The sample (1040 individuals) was picked randomly from the telephone directory; this makes the specimen group even more casual because it depends on whether the person answering the call accepts the invitation to take part or not.

From the very first analysis it was evident that the public had a very clear opinion on the issue. During the first wave 78% were in favor of the ban and by the third wave this percentage had increased to 82%. We considered three groups: those who were firmly in favor of the ban, those who were resolutely against it and those who changed their mind. This last group is the most interesting for our data analysis as the respondents are ambivalent: they agreed with those in favor for health and economic reasons but continued to share the opinion of those who consider the ban to be a violation of personal freedom. However, stability was offered not only by the fact that the last group was small but also by their opinion on these three factors, which were also the main arguments of the debate in the media. Respondents who changed their opinion on the smoking ban didn't change their opinion on freedom and health values.

3.1.2 Content Analysis

Examination of a random sample of articles concerning the smoking ban in Ticino gave us an idea of how to devise the content analysis method. First of all we noticed that the media dealt with the argument by following and reporting the debate so we decided to focus our attention on the arguments and players involved. This is the nub in the formulation of our content analysis method which I will illustrate in detail in the following sections.

The introduction of the smoking ban in Ticino followed a clear historical timeline. The discussion on a smoking ban began in October 2004, one year before the draft bill (October 2005) and three months before the smoking ban law came into force in Italy. From that moment social and political action in favor of the smoking ban gained momentum and after the law was passed in Parliament a campaign was set in motion to gather signatures for a law repealing referendum (10 March 2006). After the popular vote the law came into force but granted bars and restaurants one year to adapt their premises.

Our analysis began in October 2004 and ended in May 2007 and followed the debate on the smoking ban law as presented by Swiss newspapers. In fact, we decided to collect articles from the most important Swiss newspapers in order to have a more complete picture. We assumed that we would discover some possible influences of Ticino in other cantons, just as we predicted there would be an Italian influence in the Ticino case.

Ticino's role is of particular importance and interest because it could become a ground-breaker for a new legislative approach to smoking, taken up also by other cantons. With the undeniably growing political attention to second-hand smoke throughout Europe in recent decades, there seems to be a global approach to this health problem.

We gathered articles from seventeen Swiss newspapers: fourteen dailies and three weeklies. Divided by language we have 5 German dailies and 1 weekly, 5 French dailies and 1 weekly and 3 Italian dailies and 1 weekly. We searched for the articles using keywords in the three languages: "rauchverbot", "banner le fumè" and "divieto di fumo".

The codebook was produced and tested for reliability by coders from the three linguistic regions: German, French and Italian. Before the test was carried out we held two training sessions: in the first we presented the tools and in the second we discussed an empirical example of analysis. We then divided the articles for the coders. The codebook explained all the potentially interesting dimensions found in the articles.

Reliability

We decided to calculate intercoder reliability, considering this as evidence also throughout the three different languages of the articles. The materials and the training were in English but, being the official language of the University of Lugano, the coders also know Italian very well. So, we decided to use articles from the Ticino newspapers, whose language is Italian, to prove intercoder reliability. If we could prove that the coders were reliable in Italian then we could assume that the reliability would be similar in the other languages. It is also important to note that interaction between coders and trainer did not end with the training; meetings were held during the coding process to clear up any doubts. Intercoder reliability was calculated by comparing the three most important content level categories: source, argument and tendency. A shared coding was considered to be one where a statement had perfect correspondence in those three categories. The reliability coefficients between the coders were then calculated using this formula:

$$\text{Reliability} = \frac{2 \times \text{Number of shared codings}}{\text{Number of codings Coder 1} + \text{Number of codings Coder 2}}$$

The index between French-speaking coders and Italian-speaking coders was low: 0.4; between German-speaking and Italian-speaking coders it was 0.6 and between German-speaking and French-speaking it was 0.6.

Five articles were used to determine the level of reliability. The coders always unanimously agreed on the formal categories in which the articles should be classified but, as explained above, reliability was then calculated for the three main content level categories. The resulting indexes may seem low but it should be remembered that correspondence was attributed only in the case of an identical allocation of categories. However, none of the non-corresponding statements differed in terms of tendency or sources; the main difference regarded the argument category, the most subjective one. In particular, the index resulting from comparison between Italian-speaking coders and French-speaking ones was the outcome of the different interpretation of 2 arguments: *General reduction of passive smoking* and *Other solutions for reducing passive smoking*. French-speaking coders used the first one negated in tendency 2 while Italian-speaking coders used the second one with the proper tendency 45. If this non-correspondence were considered to be a correspondence then the reliability index would rise to 0.5. However, once again this draws attention to the coders' interpretation of argumentative content. Even although the training was effective and adequate, the concept of argument still needs clarification.

Measurements

Different measurements were used in the analysis. First of all article analysis was divided into two categories: formal categories for the definition of the article and statement level categories for the definition of the message.

Formal categories

For the formal analysis we assigned a different identification number to each article followed by the coder's code. A second code was assigned to the newspaper:

- *Daily newspapers:* Basler Zeitung, Berner Zeitung, Blick, Giornale del Popolo, Corriere del Ticino, La Regione, Mittelland Zeitungen, Vingtquatre Heures, Neue Zürcher Zeitung, Tribune de Genève, Tagesanzeiger, Le Nouvelliste, Le Temps, Matin Semine;
- *Sunday newspapers*: Il Caffè, Sonntagsblick, Matin dimanche

The third code indicated the author: journalist, authority (doctor, scientist); health institution or other institution or association; Delegates from associations of owners' of bars and restaurants, Politicians, Regular People (letters and interviews), Unknown, unclear.

The fourth item of the formal categories is the date and section of the newspaper: politics; general news section; usiness, finance, economy; culture, literature, theater, the arts, etc.; human interest news; sports; special pages such as Life Style, Eating Out, Advice, Science, Health etc.; local (often with the city or region mentioned in the title); other, e.g. supplements such as NZZ Folio; no indication; unclear.

The last formal category is the article type code: Factual: News stories, reports; Opinion: Commentary, editorial, satire (all texts that report less about what happened and more about the author's assessment of it, his/her opinion on it, his/her evaluation); subjective experience: features, etc. (all texts that report what happened, but from an author's subjective point of view, how the author witnessed the occurrence); interview; clippings from other media; letter to the editor; service (schedule, tips of all kind, notices of events); other, unclear.

Statement level categories

A premise is needed here about statement level categories. The main goal of the content analysis was to identify arguments and players in the debate so we divided the article

into statements instead of lines. The statement is the core, the unit of analysis: it consists of a sentence or a group of sentences in which we can clearly identify an argument (and part of our categories) defended by one or more players. A statement is also represented by the narration of standpoints or the chronicle of debates that highlight the different standpoints.

An example of statement is the following:

"Già in quattro paesi europei (Italia, Malta, Irlanda e Finlandia) e in diversi stati federali Usa sono in vigore leggi a tutela dei posti di lavoro senza fumo. E dal primo giugno - osserva Polli - anche in Svezia la salute della popolazione avrà la priorità sugli interessi economici dell'industria del tabacco."/ "The laws to protect working places without smoking have already come into force in four European countries (Italy, Malta, Ireland and Finland) and in various federal states in the US. And since the first of June – observes Polli - also in Sweden the population's health will have priority in the economical interests of the tobacco industry".

In these two sentences the *source* (our first argument category) and *argument* clearly in favor of the ban are evident. The source is the president of Swiss Association of Non-smokers – Alberto Polli – and promoter of the first collection of signatures delivered to Parliament in October 2004. It is possible to recognize a *tendency* in the argument (the last argument category) "in favor of the ban", while we have to read the entire article to give a clear *geographical indication* to the ban (second argument category) and the *place* where he wants to apply the ban (third argument category).

For each of the above-mentioned categories the codebook lists possible cases, while for one of the most complicated categories, the *argument*, we provide a detailed description of all the possible arguments. We identified the arguments after a preliminary reading of the sample and divided them into "built for use in favor of the ban" and "built for use against the ban". The more specific arguments are once again divided into groups: ethical/political, health and economic. Two other generic groups enable all the statements to be recorded when the argument categories (source, geographical indication, application place and tendency) are clearly defined.

Table 3.1 Typification Representation of argument categories

Arguments for the ban	Arguments against the ban
Generic statements	**Generic statements**
Other specific argument for the ban	Other specific argument against the ban
General statement favouring the ban	General statement opposing the ban
Proper arguments	**Proper arguments**
Legal protection of non-smokers' rights is called for	Freedom of smokers is illegitimately infringed
Smoking ban will reduce molestation, harassment of non-smokers by smoke	Smoking ban will increase molestation, harassment
Better social relations between smokers and non-smokers	Worse social relations between smokers and non-smokers
Ban is just because non-smokers are in the majority	Ban will discriminate smokers, stigmatize smokers
Ban is justified because majority wants it	Other solutions for reducing passive smoking
Pedagogic role for future generations	Financial losses
General reduction of passive smoking	High investment costs for places who want to adapt the architecture
Reduction of passive smoking of people who work in bars, restaurants, etc.	Expectation of low compliance
Reduction of passive smoking of children	Bad experiences in other countries with smoking bans, unspecified
Reduction of smoking beneficial to smokers' health	Bad experience with earlier regulation in Switzerland
Unspecified references to improvement of public health	Cantonal vs. federal competence, nation-state vs. international
Financial gains	
Financial benefits for health system	
Expectation of high compliance	
Good experiences in other countries with smoking bans, unspecified	
Good experience with earlier regulation in Switzerland	
Avant-garde role	

Table 3.1 highlights another distinction in the argument: generic statements and proper arguments. This division will be explained in detail in the following chapter and the usefulness of distinguishing between them will become clear. However, the main distinction between the two groups it the fact that generic statements are useful in recording all statements clearly in favor or against the ban with an argument that is too specific or too generic to be typified. Instead, the proper arguments are the representation of possible arguments that can be found in the articles about the debate on the smoking ban.

The argument types are mirror-like "in favor" and "against" the ban, except for those regarding health. This doesn't mean that health issues were not debated; they are the reason why the tendency category was included. Health arguments are all "built for use in favor of the ban", because nowadays it is very difficult to argue against the claim that smoking is harmful. Nevertheless, it is possible to find statements that use health arguments in counter tendency; i.e., against the ban, because, for example, they are considered unreliable or not verified.

In order to record these complex cases and not discard them, and to grasp the exact evolution of the debate, we distinguished the tendency of the statement from the natural tendency of the argument. This distinction enabled coding of the following case types:

"E' impossibile quantificare il costo globale per creare una sala fumatori, ma vorrei sottolineare che lo spirito della legge è esattamente l'opposto, cioè quello di vietare completamente il fumo nei bar e ristoranti ticinesi. Poi, se un pubblico esercizio ha lo spazio e l'esigenza di creare un locale fumatori, deve fare un certo investimento"/ "It is impossible to quantify the global cost of creating a smoking room, but I would like to underline that the spirit of the law is exactly the opposite, that is to completely ban smoking in bars and restaurants in Ticino. Then, if a public place has the space and the need to build a smoking room, a major investment will be necessary"

where the argument "High investment costs for bars and restaurants etc.", used against the ban, is in fact used "in favor" of the ban. This is an important example in understanding the discussion because it is unusually complex. Indeed, the argument is constructed using arguments of the other side in order to support one's own side.

The codebook lists 18 arguments "built for use in favor of the ban" and 13 "built for use against the ban" and these represent the dimensions used to define each article.

Sample of quantitative content analysis

The resulting content analysis was carried out between 1 October 2004 and 31 May 2007. The search using keywords resulted in the collection of 4,600 articles. After a preliminary perusal by the coders, the sample was trimmed down to 3,169 articles, some 19,777 statements. Table 3.1 gives details about the sample; i.e. language, type of newspaper and distinction between arguments and statements.

3.1.3 Empirical studies on smoking

Smoking, and tobacco more in general, have been the subject of many content analyses and public opinion studies. However, these two types of scientific studies have never been conducted in conjunction so there is no overlap between the literature on the content analysis of tobacco and smoking and that on the analysis of the public's opinion about smoking in general.

Content analysis of smoking
Content analysis literature includes many studies on the communicative messages of different types of media regarding smoking and tobacco. Some projects focus more on the way the pop culture addresses the subject through movies, video clips, videogames and books while other studies directly analyze the problem of smoking related to policies or messages of health ministries or disease prevention associations.

Focus on studies that take into account print media messages show that the tested hypotheses and contexts differ greatly from each other. A common aim of some content analyses is to map the arguments on smoking published in the print media and to classify them. After the main concepts have been highlighted the next step is to identify the different framings of the discussion (Magzamen, Charlesworth and Glantz 2001; Durrant, Wakefield, McLeod, Clegg-Smith and Chapman 2003).

Magzamen, Charlesworth and Glantz, in particular, found that the main arguments in the debate on California's smoke-free bar law were related to economics and freedom, just as appears to be the case in Ticino. This is all the more interesting because this research project was designed around the introduction of a smoking ban in California.

In the same way, other content analysis studies attempted to identify the general framing of the smoking ban but their aim was to organize an optimal health promotion campaign (Menashe and Siegel 1998; Kennedy and Bero 1999). The context of these studies was

different from the previous ones because they investigated the situation without taking into consideration potential future laws.

Some other studies focused only on different players' opinions about smoking, such as tobacco farmers (Altman, Strunk and Smith 1999). Others were based on a more general point of view, trying to represent all the players that influence public opinion, but again not from a legislative perspective (Durrant, Wakefield, McLeod, Clegg-Smith and Chapman 2003).

Public opinion studies on the smoking ban
As regards public opinion studies, several have been recorded in which surveys were used. Green and Gerken's study (1989) on self-interest and public opinion on smoking restrictions is apparently in contrast with the pattern of the null findings nature of self-interest literature. Their data "indicate that non-smokers are far more enthusiastic about tightening smoking restrictions and increasing cigarette taxes than smokers, particularly heavy smokers". But the study's divergence from the literature is only apparent because they highlight the singular nature of the smoking issue; moreover their findings are in line with more recent opinion change patterns in the literature. The study consists of a comparison between different waves of interviews in a set time period and also develops some hypotheses on the stability of public opinion.

Much of the literature on smoking considers the influence of movies, newspapers and other media on public opinion while other studies focus their attention on tobacco users' perception of risk (Nyman, Taylor and Biener 2002; Siahpush, McNeill, Hammond and Fong 2006; Solfberg and Kottke 1998; Weinstein, Marcus and Moser 2005; Wilkin and Ball-Rokeach 2006) in order to intervene in patients' conditions or to promote health messages.

Some studies that use surveys were also conducted in countries that recently adopted smoking ban laws, such as Ireland. These studies are more concerned with risk perception and its objective measurement (Allwright et Al. 2005).

The intersection between the two subjects
The only study that combines content analysis and public opinion survey methods is Shanahan, Scheufele, Yang and Hizi's (2004) which takes into consideration the Cultivation and Spiral of Silence theories. The study sets the media usage of TV against opinions and perceptions of smoking but doesn't highlight any direct relationship. The model used is based more or less on canonical tools derived from classical public opinion theories and the study highlights the main arguments of anti-smoking policies,

freedom and health risks. However, according to the authors, one question remains unanswered: "If smoking is being portrayed less prevalently on television, why do heavy viewers overestimate smoking prevalence?"

3.1.4 Content analysis and Frame analysis

Without doubt the most "tangible" part of framing is what Entman calls text; i.e. the content of communicative messages which is the part that can be most easily analyzed and manipulated. The starting point for any study whose theoretical background is framing is usually the gathering together of texts or videos. Generally speaking, the framing theory uses two main text analysis methods: content analysis, both qualitative and quantitative (the latter is generally the most commonly used), and discourse analysis. Those methods are useful in that they help identify and assemble framing devices that can elicit the frames.

How can content analysis help identify frames? How can the framing theory be considered in the development of a content analysis? Structuring a content analysis starting from a precise research hypothesis allows almost any type of questions (social or humanistic) to be answered because this tool was created to test hypotheses rather than to discover them (Bernard 2000). The advantage of content analysis is its ability to observe a large sample and transform it into a set of manageable data (Riffe 1998). Content analyses usually transform content into numerical values in order to represent differences. When the measurement tools are well structured, this reduction process is a mere translation (simplification) of the entire data set.

"Quantitative content analysis is the systematic and replicable examination of symbols of communication, which have been assigned numeric values according to valid measurements rules and the analysis of relationships involving those values using statistical methods, to describe the communication, draw inferences about its meaning, or infer from the communication to its context, both of production and consumption" (Riffe, D. 2005).

These characteristics of content analysis have made it one of the most frequently used empirical methods in the science of communication. The fact that in itself content analysis is a tool for hypothesis testing also enables us to test the hypotheses of the framing theory. The difference between content analyses lies in the assumptions made. But while this may be true, and is the reason why combined framing-content analysis works so well, the typical problems of content analysis have to be solved during the project design stage.

Content analysis design starts from the definition of the unit of measurement. Generally speaking, the more manifest the content collected, the more reliable the analysis. But in the case of framing devices not all the content to be stored is manifest.

Considering Pan and Kosicki's approach, framing devices can be described as follows. Framing devices in news discourse can be grouped into four categories: syntactical structure, script structure, thematic structure and rhetorical structure. In this description the lexical choices of journalists also play a central role, intervening in syntactical and script structures, creating a connection between signifier and "signified" and placing them within a set cognitive category.

The syntactical structure is what Van Dijk (1988) calls "macrosyntax". In most news stories the macrosyntax is represented by an upturned pyramid and by the rule of source attribution. An upturned pyramid is the sequential organization of structural elements: for example headline, lead, episodes, background and closure. The communicative power of these elements weakens the further down the pyramid we go; for example, a headline is the most important syntactical figure that can trigger a semantical process in the reader's mind. The second point, the rule of source attribution, concerns professional conventions such as: "claiming empirical validity or facticity by quoting experts or citing empirical data, linking certain points of view to authority by quoting official sources, and marginalizing certain points of view relating a quote or point of view to a social deviant." (Pan & Kosicki 1993)

Script structure is another convention. News is normally intended to bring facts to the population. In this view of things news has the social function of storytelling and has to be organized in some way, on the basis of scripts. An example of a script could be the popular five Ws and one H: who, what, when, where, why and how. Using script structure to present news gives the impression that the news story is an independent unit.

Not all news regards an action or an event. Some items of news bring together many different actions and events related to a single issue, because the news itself is the issue. This kind of news contains hypothesis testing features and often a theme "is presented or implied, and evidence in the form of journalists' observations of actions or quotations of a source is presented to support the hypotheses" (Pan & Kosicki 1993). This hypothesis testing process is called thematic structure. When attempting to define thematic structure Pan and Kosicki encountered some difficulties in identifying basic units. They refer once again to Van Djiks' macrosyntax of news stories, considering a thematic structure to be made up of a summary and a main body. "The summary is usually represented by the headline, lead, or conclusion. The main body is where evidence supporting a

hypothesis is introduced that contains episodes, background information and quotes. [...] A thematic structure of a news story, therefore, is a multilayer hierarchy with a theme being the central core connecting various subthemes as the major nodes that, in turn, are connected to supporting elements". (Pan & Kosicki 1993)

Rhetorical structure regards the journalist's stylistic choices which she/he makes bearing in mind the intended effect. Gameson and Modigliani's five framing devices (1989) - metaphors, exemplars, catchphrases, depictions and visual images - fall into this category.

However, even considering such an accurate classification of framing devices, it is clear that the content to gather is not always manifest. For this reason the main problem in using content analysis is the difficulty of pinpointing every device that can result in the reconstruction of frames. This problem becomes even more complicated if we try to analyze latent content without heeding the recommendations of content analysis experts. If we consider only manifest content then the problem will be much more limited and the only risk will be that we encounter more difficulties when reconstructing frames. In this case we will identify fewer devices but their truthfulness and reliability will be indisputable.

Gamson and Modigliani (1989), Van Gorp (2007), Brosius and Eps (1995), and many others suggest beginning content analysis by building a frame matrix with a list of all possible devices. Once the matrix is ready then the content analysis will be easier, and all the other tools will be designed around it.

Although not without its problems, content analysis remains one of the best methods for studying content. It is important to have available a framing model and framing devices before carrying out the analysis itself, but the fact that the method has been developed for hypothesis testing makes it ideal for identifying frames. The crucial point in content analysis remains operationalization, the step that minimizes errors in the subsequent data interpretation stage.

3.2 Dataset description

3.2.1 Formal categories

Within the framework of the DIFU project, funded by the Federal Office of Public Health, the Institute of Communication and Health carried out both a longitudinal study using survey methods and a content analysis. The collection of articles for content analysis started in October 2004 and ended in May 2007. Over more than thirty months we collected around three thousands articles from seventeen Swiss newspapers. The following pages present the analysis of the dataset resulting from the collection and analysis of the articles.

The articles were collected from seventeen Swiss newspapers. Three were national daily newspapers: Neue Zürcher Zeitung, Tagesanzeiger and Blick. Around five hundred articles were collected from these newspapers and gave back more than three thousand statements. Eleven daily newspapers were regional: Basler Zeitung, Berner Zeitung, Giornale del Popolo, Corriere del Ticino, La Regione, MLZ, Vingtquatre Heures, Tribune de Genève, Le Nouvelliste, Le Temps, Matin Semaine. Around two and a half thousand articles were collected from these newspapers. There were three weekly newspapers: Il Caffè, Sonntagsblick, Matin dimanche, from which we collected around ninety articles. Four of the seventeen newspapers were from Italian-speaking Switzerland. The main reason behind this choice was the fact that the smoking ban was discussed for the first time in Ticino so it was important to have all the main newspapers of that Canton.

The resulting sample totaled 3,169 articles, with 19,777 statements. Table 3.1 lists the name of the newspapers used in the study and the relative number of articles and statements. National newspapers had the highest ratio between articles and statements (6.5). Regional newspapers followed with a ratio of 6.2 while the lowest ratio was that of weekly newspapers (5.2).

Table 3.2 Overall representation of the data collected with the content analysis of DIFU

	Articles (n= 3169)	Statements (n= 19777)
National daily newspapers		
Neue Zürcher Zeitung	135	1076
Tagesanzeiger	263	1567
Blick	84	494
Sum of national daily newspapers	482	3137
Mean	160,7	1045,7
Regional daily newspapers		
Basler Zeitung	280	1698
Berner Zeitung	437	2606
Giornale del Popolo	220	902
Corriere del Ticino	253	1405
La Regione	214	1104
Mittelland Zeitungen, MLZ	694	4351
Vingtquatre Heures	158	995
Tribune de Genève	113	1098
Le Nouvelliste	59	462
Le Temps	65	907
Matin Semaine	102	629
Sum of regional daily newspapers	2454	15375
Mean	253,9	1468,8
Weekly newspapers		
Il Caffè	46	228
Sonntagsblick	22	69
Matin dimanche	24	186
Sum of weekly newspapers	92	483
Mean	30,7	161
Total	3169	19777
Mean	186,4	1163,4

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

Considering the high number of articles, the authors were clearly mostly *journalists* (78.9%). But the fact that the smoking ban is of interest to the entire population makes the "*regular people*" the second most frequent author with 17.9%. *Politicians* account for 1.3% of the articles, more than the *authority of the field* (such as doctors) with 0.9%. We could have expected more articles by doctors because in a discussion on a smoking ban the opinion of health experts would be useful but this is the first sign of a debate where health is no longer only the domain of doctors and health specialists.

Articles about the smoking ban are found mainly in two sections: *politics-general news section* and *local section.* In national newspapers there is a higher percentage in the *politics section* (53.6%) compared to regional newspapers (47.3%). Also *human interest news section* gives space to smoking ban articles in national newspapers (5.1%). The opposite applies in the *local section* where regional newspapers give more space to the smoking ban (34.2%) than national newspapers (22.5%).

Articles about the smoking ban vary in type, from factual to opinion, from interview to letter to the editor, etc. Generally speaking, articles about the smoking ban are of three main types: *factual* (69%)*, opinion* (13.2%), and *letter to the editor* (12.3%)*.* This distribution changes a little between national and regional newspapers. In national newspapers articles are divided into these three categories too but the percentages are different: they concentrate more on factual (76.9%) than on opinion (9.4%) and letter to the editor (8.9%). Another distinction can be made between newspaper types: serious and tabloid. In this case, factual articles represent 69.1% in serious newspapers and 66.1% in tabloids. The biggest difference is found in the letter to the editor category: the percentage is much higher (18.5%) in tabloids than in serious newspapers (12.1%).

The high number of articles collected immediately demonstrates that the topic of the smoking ban was far from ignored by the Swiss press. However, the distribution of the articles over time will tell us much more about the development of the argument in the print media.

Since the smoking ban was discussed and approved for the first time in the Ticino canton it may be that the highest frequencies of articles correspond with the milestones of that history. The graph below shows the frequency of articles on the smoking ban appearing in 17 Swiss newspapers in the period from early October 2004 to the end of May 2007. The hypothesis of a certain correspondence between the peaks and the main events in Ticino is not sufficient. In fact, while the first peaks correspond to some specific events in the history of the smoking ban in Italian-speaking Switzerland, the last ones (October-December 2006) cannot be explained using the same logic.

Graph 3.1 Newspaper coverage of the smoking ban in Switzerland between October 2004 and May 2007
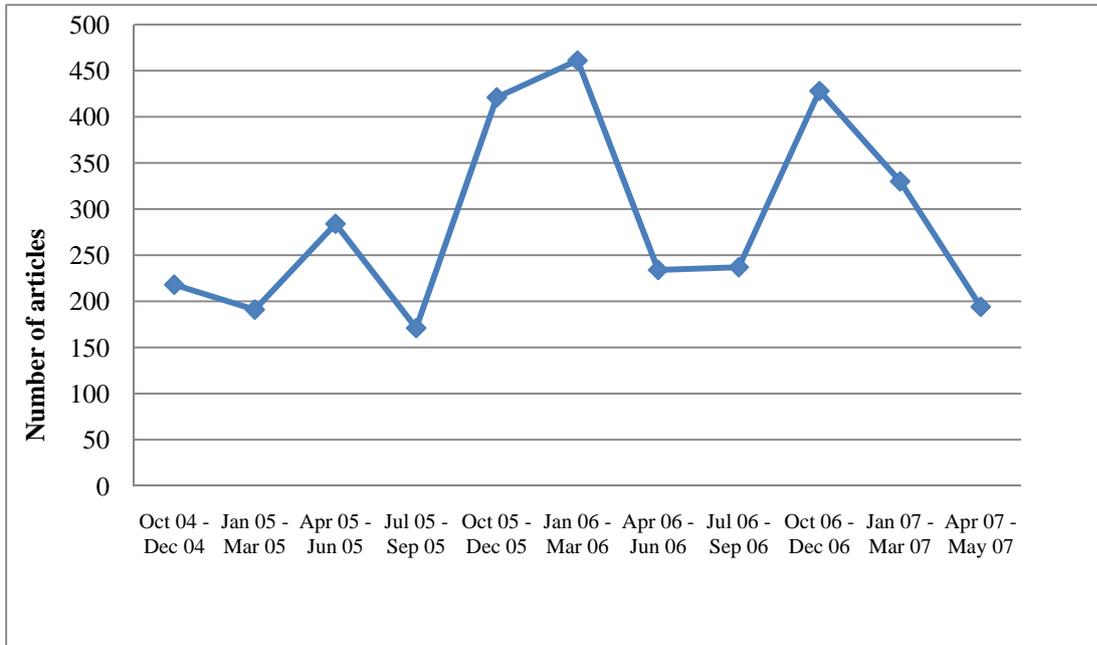

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

The fact is that this graph shows us that the number of articles on the smoking ban published in Swiss newspapers is significant but it doesn't tell us anything about either the articles themselves or the potential reasons for such a trend.

3.2.2 Introduction of a content category: tendency of the statement

The smoking ban is a controversial topic but the graph above is unable to highlight this aspect. However, content analysis will allow us to say how newspapers chronicled the debate. The graph below shows something more about the coverage of the smoking ban law: the distinction between statements against and in favor of the ban. Graph 2 refers to the total number of statements gathered throughout Switzerland and not to the number of articles as a whole as shown in graph 3.1. As explained in chapter 2, the statement is the basic unit of this content analysis.

Graph 3.2 Distinction of statements in favor or against the ban in Swiss newspapers' coverage of the smoking ban in the period from October 2004 to May 2007
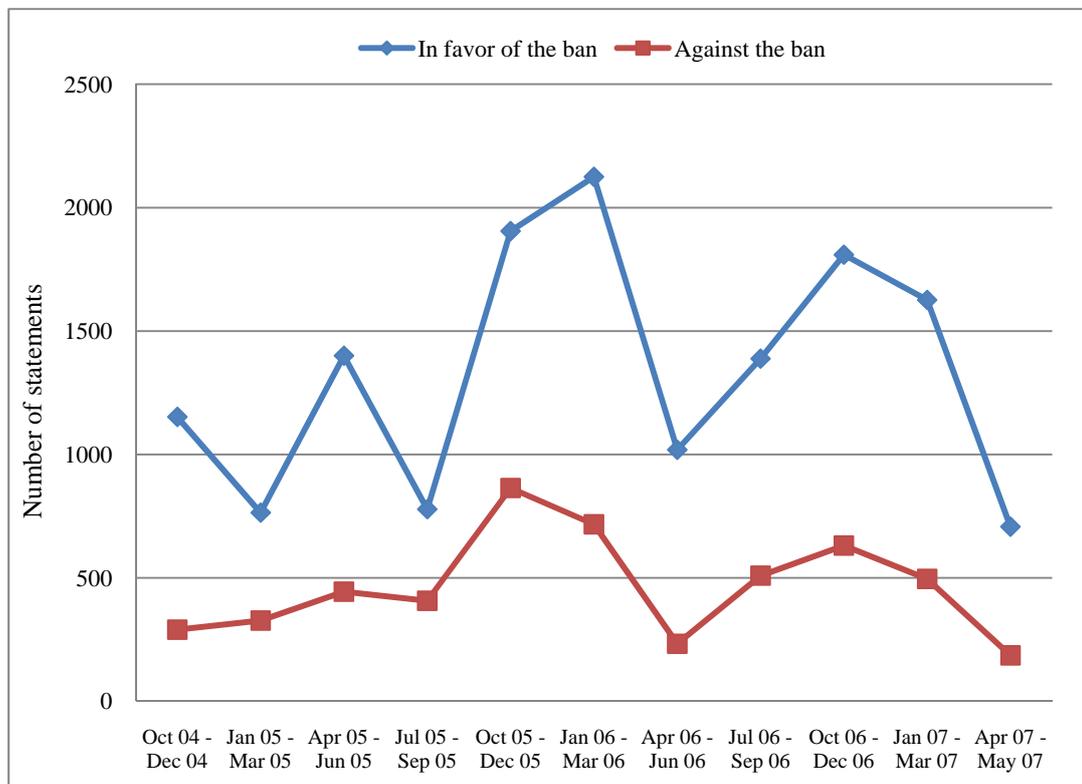
Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

This graph highlights a parallel trend of the two lines. The graph also shows that the statements in favor of the ban occupy at least two thirds of the discussion.

So far, the graphs and tables haven't told us much about the debate in Switzerland except to confirm its presence in the print media. Moreover, graph 3.2 shows how the voices in favor of the ban represent the majority in the discussion. This chapter aims to describe the debate and the four main questions behind it. The first general question is what changes in the debate during the observation period. Then there are other questions which will help answer the first one. One complex question concerns the arguments used in the debate: which arguments are used in favor and against the ban and how are they used? Another point aims to trace the differences between linguistic regions. The final important question is about the players in the debate: who they are and how present they are. Section 3.3 will focus on the players, those whose voices are found in newspapers' coverage of the smoking ban. The following section, 3.4, will take into consideration the players' messages: the argumentative content of the articles. Section 3.6 makes a distinction between the three linguistic region of Switzerland and observes their main

peaks in detail. Before concluding the chapter with some considerations on the debate deriving from content analysis a section will discuss the case study of economic arguments.

3.3 Players in the debate

One question needs an answer if we are to better understand and describe the debate on the smoking ban in Swiss newspapers: who are the players? An assumption must be made: in the print media journalists are like gatekeepers, they decide who can be represented in the media (enter) and who cannot (remain out). In order to better identify the players in the debate the codebook provided a long list of categories of sources. To summarize and represent the results the sources are grouped into six categories depending on their interests: health interests, economic interests, social interests, personal interests, reportage interests, other interests. The members of the groups are listed in the tables below to make the division into the six groups clearer.

The smoking ban issue interests all members of society, smokers and non-smokers alike, and since it is being discussed more and more all over Europe, with a specific law proposed in Italian-speaking Switzerland, it is easy to see why more and more space is being devoted to the question in Swiss newspapers. However, if the theme is of interest to everybody, it is conceivable that some players will be more present than others in the media due to their expertise and authority. Smoking is primarily a matter of health; as explained in the introductory chapter, during the last century it became increasingly targeted because of its dangerous effects. Based on the assumption that the media are a means of information, combined with the previous assumption that smoking is a matter of health, the main players in the print media have to be doctors; however the proven harmful effects of smoking have turned it into a salient topic for health policy and for this reason other important actors of the debate become politicians. In particular, in Ticino some political parties are in favor of a ban while one is strongly against it and all have to be represented in the media. During the debate on smoking as a health policy, one possible way considered of combating its harmful effects was to ban smoking in public places such as bars, restaurants, etc. Bar and restaurant owners probably have a lot to say about the possibility of prohibiting tobacco in their establishments. These are therefore the main players in the debate, followed by the general public, journalists and various associations. We can also imagine that tobacco companies take part in the discussion because they have an even bigger interest than the owners of bars and restaurants. This profile may correspond to reality or else the data could perhaps bring to

light a completely different picture of the players' representation. This section studies this topic in more depth, examining the interest groups and the single sources, comparing them and what they say.

The following table orders the interest groups by frequency; the other tables show details of the members of the groups and their frequencies in the different linguistic regions and in Switzerland in general.

Table 3.3 Presence of the interest groups in newspaper coverage of the smoking ban in Switzerland and in its different linguistic regions

Interest Groups	Italian CH	French CH	German CH	Swiss
	%	%	%	%
	(n=3639)	(n=4277)	(n=11861)	(n=19777)
Sociality Interests' Players	42	28	41	39
Personal Interests' Players	26	27	22	24
Economic Interests' Players	17	16	19	18
Health Interests' Players	6	18	6	9
Reportage Interests' Players	5	6	7	6
Various Interests' Players	4	5	5	5
	100	100	100	100

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

That table allows comparison between the actual representation of the players in the media and the profile outlined above. Doctors, initially thought to be the main player belong to the health interest group, only ranks fourth of the six interest groups, with an average percentage of 9% in Switzerland. This group is more present in French-speaking Switzerland (18%) where it ranks third. The second main players imagined above are politicians, and they are indeed in first place in the table with an average frequency of 39%: sociality interest group. The economic interest group is made up of restaurant and bar owners, their associations and tobacco companies. This group comes third in the table with an average frequency of 18%, which more or less corresponds to the hypothetical image, but the group was unpredictable. The second group is the personal interests category with an average frequency of 24%. The reason for our surprise over this finding is not so much because of the amount of space given to the personal interests group but to the fact that health interests and economic interests groups, particularly the

former, appear to be less important. This table provides interesting information: the similarity between the presence of the players in German and Italian-speaking Switzerland and the difference in the presence of players in French-speaking Switzerland. In French-speaking Switzerland the groups are divided into pairs with more or less the same frequency: Sociality interests (28%) and Personal interests (27%), Economic interests (16%) and Health interests (18%), Reportage interests (6%) and Various interests (5%). The table below shows the distinctions between the sources in the different groups in more detail.

As regards the Sociality interests group (Appendix 3, Table 15), the most frequent were Gran Consiglio, Consiglio di stato, Other Swiss Politicians and Political Institutions in other countries. To consider the parties more specifically we have to look at each linguistic region. In Ticino the Lega and PPD are the most represented (8% and 7%), followed by PLR (6%) and PS (5%). In French-speaking Switzerland the parties are represented by more or less the same frequency (2-3%). In German-speaking Switzerland the UDC and PLR have the strongest voices. However, the fact that the most highly represented were Gran Consiglio and Consiglio di Stato leads to the conclusion that the discussion is not only a question of public opinion but a real issue in Parliament.

Table 3.4 Ticino political parties' presence in newspaper coverage of the smoking ban

Sociality Interests	Italian CH % (n=1532)
Gran Consiglio	15
Other Swiss Politicians	15
Political Institutions in other countries	10
Consiglio di Stato	19
PPD	7
PLR	6
UDC	3
PS	5
PEV	1
Politicians in other countries	0
Lega	8
Green Party	2
Department for Health and Society	4
BAG	1
Department for Finance and Economy	0
Department of Institutions	3
Other Institutions and Associations/Unspecidied Institutions	0
Department of Education, Culture and Sport	0
Department for the Territory	0
Police and other Authorities	0
	100

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

The table above is an excerpt from Appendix 3, Table 15, and shows the presence of Ticino's political parties in the Italian Swiss media. Initially, in Ticino, not all the parties were in favor of the ban but after the October 2005 proposal the only party that continued to oppose the law was the Lega.

As explained at the beginning of this chapter, the DIFU project has two parts: a panel study and a content analysis of Swiss newspapers coverage of the smoking ban. The

table below shows the results obtained from analysis of the fifth of the five waves of the panel study. This wave took place after the law came into force in Ticino. It may be interesting to understand if the panel saw the massive presence of political parties in the media and what influence they think they had. The table shows the answers of 964 people from Ticino to this question:

"Alla realizzazione e all'introduzione del divieto di fumo in Ticino hanno preso parte molti soggetti, ma alcuni hanno avuto più influenza degli altri. Ora le leggo diversi nomi di partiti e media, per ognuno di essi mi deve dire se è quello che ha avuto l'influenza maggiore, se ha contribuito in qualche modo o se ha avuto pochissima influenza."/Many subjects took part in the design and introduction of the smoking ban in Ticino, but some had more influence than others. I will now read the names of parties and media; for each one could you please tell me if you think it is the one that had most influence, if it contributed in some way, or if it had very little influence.

Table 3.5 Answers of a sample from the Ticino population on the influence of political parties in the creation of the smoking ban law

	N	%
PPD		
5 - L'influenza maggiore	69	7.2
4 - Ha avuto influenza	94	9.8
3 - Ha contribuito in qualche modo	148	15.4
2 - Ha avuto poca influenza	80	8.3
1 - Ha avuto pochissima influenza	87	9.0
Nessuna risposta / non so	486	50.4
Totale	964	100.0
PLR		
5 - L'influenza maggiore	43	4.5
4 - Ha avuto influenza	79	8.2
3 - Ha contribuito in qualche modo	167	17.3
2 - Ha avuto poca influenza	88	9.1
1 - Ha avuto pochissima influenza	93	9.6
Nessuna risposta / non so	494	51.2
Totale	964	100.0

Lega

5 - L'influenza maggiore	34	3.5
4 - Ha avuto influenza	55	5.7
3 - Ha contribuito in qualche modo	101	10.5
2 - Ha avuto poca influenza	96	10.0
1 - Ha avuto pochissima influenza	206	21.4
Nessuna risposta / non so	472	49.0
Totale	964	100.0

UDC

5 - L'influenza maggiore	24	2.5
4 - Ha avuto influenza	53	5.5
3 - Ha contribuito in qualche modo	130	13.5
2 - Ha avuto poca influenza	89	9.2
1 - Ha avuto pochissima influenza	159	16.5
Nessuna risposta / non so	509	52.8
Totale	964	100.0

Verdi

5 - L'influenza maggiore	174	18.0
4 - Ha avuto influenza	116	12.0
3 - Ha contribuito in qualche modo	101	10.5
2 - Ha avuto poca influenza	44	4.6
1 - Ha avuto pochissima influenza	79	8.2
Nessuna risposta / non so	450	46.7
Totale	964	100.0

Partito socialista

5 - L'influenza maggiore	82	8.5
4 - Ha avuto influenza	137	14.2
3 - Ha contribuito in qualche modo	125	13.0
2 - Ha avuto poca influenza	55	5.7

1 - Ha avuto pochissima influenza	80	8.3
Nessuna risposta / non so	485	50.3
Totale	964	100.0

It may be useful to compare the Ticino population's idea against the actual situation of the parties' representation in the media and thus formulate an idea about the public's perception of the debate. First of all, it is essential to define the meaning attributed to the answers. Since the question speaks about the contribution of parties to the smoking ban it is important to remember that this smoking ban has been a success. The answers then have the following meanings: scores 5 and 4 signify a positive contribution to the creation of a smoking ban law while scores 2 and 1 assume the contrary; i.e. a contribution against the smoking ban. Considering this explanation of the answers, three results require commenting. Generally speaking, the answers to the question are generic. Half of the sample answers "I don't know" and in most cases the other answers are concentrated in the middle section of the scale, confirming the tendency of "not knowing". However, if we look at the Lega the situation is different. 49% answer "I don't know", but another 31.9% gives a score of between 3, 2 and 1. That means that the people know exactly the role played by the Lega in the smoking ban debate. Another confirmation is given by the example of the UDC. At the beginning the UDC held the same position as Lega, but after the decision about the law in Parliament it abandoned the battle carried on by the Lega. The perception of the population is clear again: 39.2% are concentrated between 3, 2 and 1. However it is not as negative as Lega, because score 3 has the highest frequency (13.5%) and that means more "I don't know" than a negative judgment. The third curious phenomenon is the Verdi party. They are considered as having a major positive influence in the decision on the smoking ban (40.5 % between 3, 4 and 5) but, as can be seen in table 22, the Verdi weren't given much space in the media (just 2%). This answer then is maybe due to an association of ideas: green means clean earth and clean air and so they have to be active in proposing a smoking ban.

As regards the Personal interests group (Appendix 3, Table 6), it is generally represented by normal people who register a high participation both in letters to the editor and in some interview articles.

The Economic interests group (Appendix 3, Table 7) is large because it includes representatives from the gastronomic associations of each canton. Of these associations

only the Ticino Gastronomic association has a widespread presence in the Swiss media, even if at a closer look it is clear that this finding depends only on a strong presence of the association in Italian-speaking Switzerland's newspaper coverage. Generally speaking, the main players of this group are the Swiss Gastronomic association, Public Transport Institutions, bar owners without affiliation and, finally, restaurant owners without affiliation. The tobacco industry and trade is another player common to the three linguistic regions but the overall percentage is only 4, while the abovementioned players represent around 15%. Considering the linguistic regions per se, the other players are represented by local canton associations. In Ticino there is in fact a cantonal gastronomic association with 31%, in French-speaking Switzerland there are the Genève gastronomic associations with 11% while in German-speaking Switzerland there are the Solothurn gastronomic associations with 8%.

Table 3.6 Members of the Health Interests Group and their presence in the linguistic regions' newspaper coverage

Health Interests	Italian CH	French CH	German CH	Swiss
	%	%	%	%
	(n=228)	(n=766)	(n=720)	(n=1714)
Institutions of health information, disease prevention etc.	83	25	61	48
Other Institutions and Associations/Unspecified Institutions		59	4	29
Medical doctors, medical experts	17	16	35	24
	100	100	100	100

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

The members of the health interests group most represented in Swiss media are *Institutions of health information, disease prevention etc.* with the sole exception of French-speaking Switzerland where the strongest voice of the group was Other Institutions and Associations. Generally speaking, institutions hold a bigger role than doctors and medical experts so the forecast made at the beginning of the section is confuted.

The most represented members of the reportage interests group (Appendix 3, Table 8) are journalists.

The Various Interests group (Appendix 3, Table 9) remains generic because its members are Other Institutions and Associations. This item is the same as the one appearing also in other groups of interest, but it is clearly distinguished in its specification. Each generic

association was coded with the name and at the end of the data gathering stage they various associations were then reassigned to a category.

The following graphs show the presence of the groups during the period examined by the content analysis. In the graphs there are two lines; the blue line represents statements in favor of the ban while the red line represents statements against the ban.

Graph 3.3 Presence of the Health interests group in the discussion on the smoking ban divided into the tendency in favor and against the ban
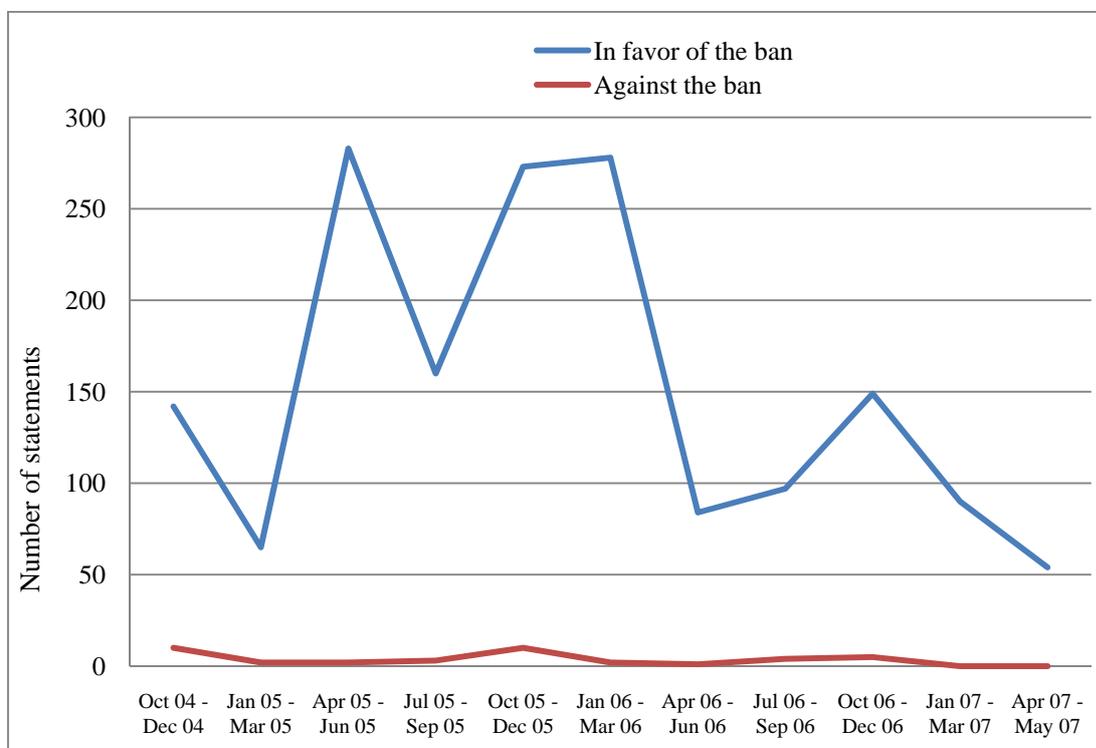
Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

Considering the make-up of the health interests' group, it is clear that it always expresses a favorable opinion on the ban in newspapers.

Graph 3.4 Presence of the Economic interests group in the discussion on the smoking ban divided into the tendency in favor and against the ban
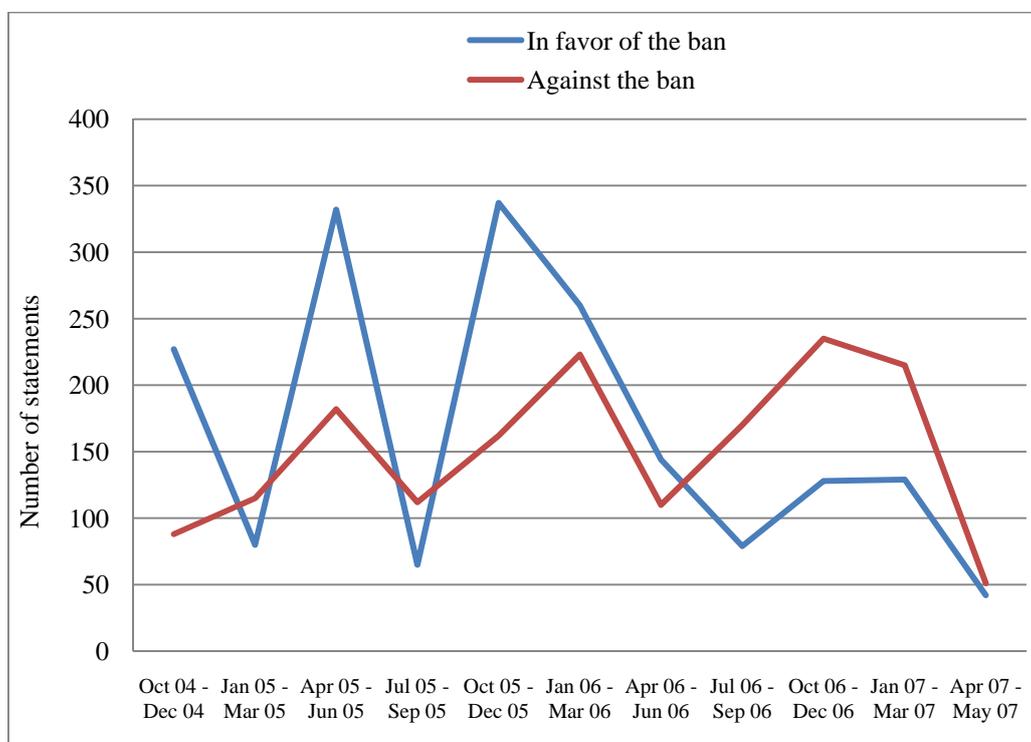
*Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano*

The economic interests group expresses opinions both in favor and against the ban during the observation period. During the first year the trend of the economic group in favor of the ban is discontinuous, it alternates between troughs and peaks. During the final year it remains then fairly steady and lower than the tendency against the ban.

The sociality interests group's (Appendix 3, Graph 1) voices in the media are almost always in favor of the ban.

The personal interests group (Appendix 3 Graph 2) shows a similar trend in the two tendencies until Jul-Sep 06, after which the voices in favor were more than those against the ban.

During the first year of observation the reportage interests group (Appendix 3, Graph 3) speaks out both in favor and against the ban. After the October – December 2005 three-month period the group expresses opinions almost exclusively in favor of the ban.

Graph 3.5 Presence of the Various interests group in the discussion on the smoking ban divided into the tendency in favor and against the ban
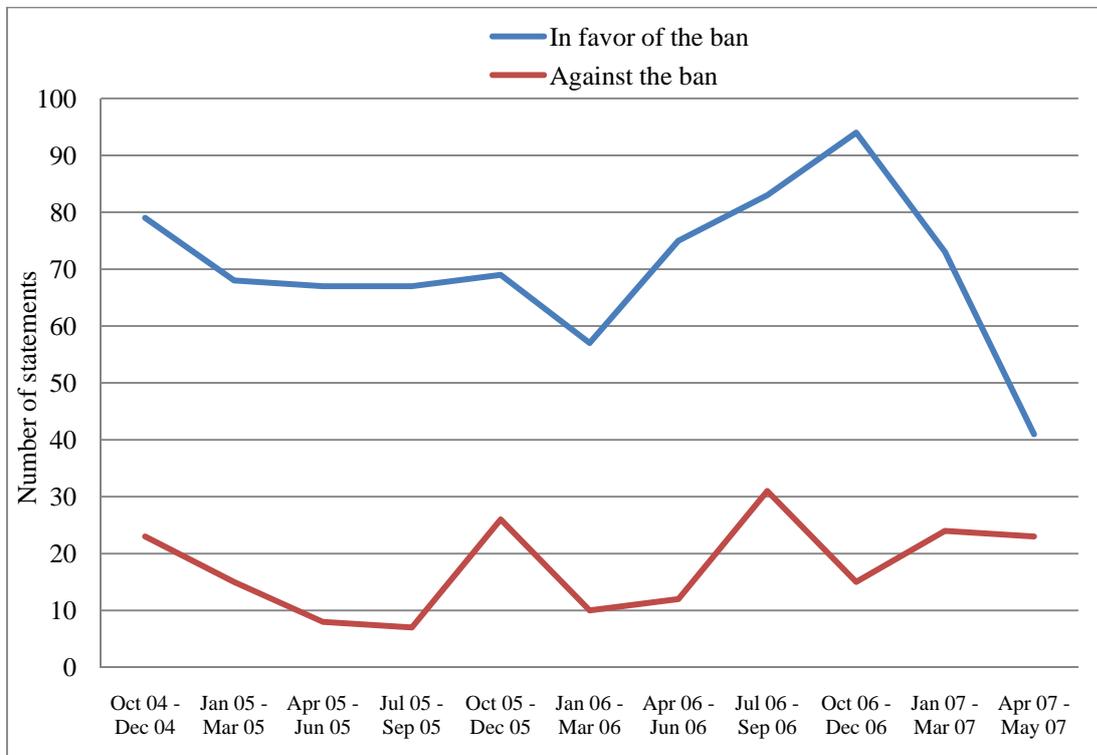
Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

In the graph above, which represents the various interests group, the lines in favor and against the ban are almost parallel. However the frequency of statements in favor is four times the frequency of statements against the ban.

The graphs above give a general idea of the players' positions on the ban. However, leaving aside the positions as such, we can now look into the argumentative side of the debate, exploring the arguments the players used the most.

Table 3.19 shows how each interest group expresses its opinion, especially with generic statements. This is the case above all of the sociality interests group and of the various interests group. They are the least argumentative but the argument they use when they do become argumentative is mainly health related (both with 14%). The most argumentative group, meaning not only a high percentage of argumentative statements but also the variety of arguments used, is the personal interests group, with mainly health arguments (17%) and freedom and social arguments (both with 15%). The economic interests group uses economic arguments (17%) and legal arguments (13%). The health interests

group uses health interests arguments (30%), while the reportage interests group mainly uses health arguments (15%) and social arguments (17%).

Generally speaking, almost every group often uses health arguments. This is significant because health arguments are generally in favor of the ban. The only exception is the economic interests group which focuses on economic and legal arguments. These arguments are the most highly debated by the two tendencies, meaning that in this group there is not a clear majority in favor of the ban as in other groups.

Table 3.7 Arguments used by the different Interest Groups

	Sociality Interests % (n=7656)	Personal Interests % (n=4253)	Economic Interests % (n=3486)	Health Interests % (n=1714)	Reportage Interests % (n=1265)	Various Interests % (967)
Generic statements	63	38	45	38	36	56
Freedom arguments	9	15	7	10	8	8
Health arguments	**14**	**17**	9	**30**	**15**	**14**
Economic arguments	2	6	**17**	5	9	5
Social arguments	5	**15**	8	7	**17**	9
Legal arguments	5	7	**13**	6	9	6
Experience arguments	1	3	3	4	6	1
	100	100	100	100	100	100

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

This final table of the section regarding the players leads on directly to the following section which presents an in-depth picture of the argumentative content of Swiss newspapers' coverage of the smoking ban.

3.4 Arguments of the debate

The idea behind the codebook for this content analysis was to cover the debate in terms of the arguments made in favor or against the ban. All the coded arguments are presented in the following map:
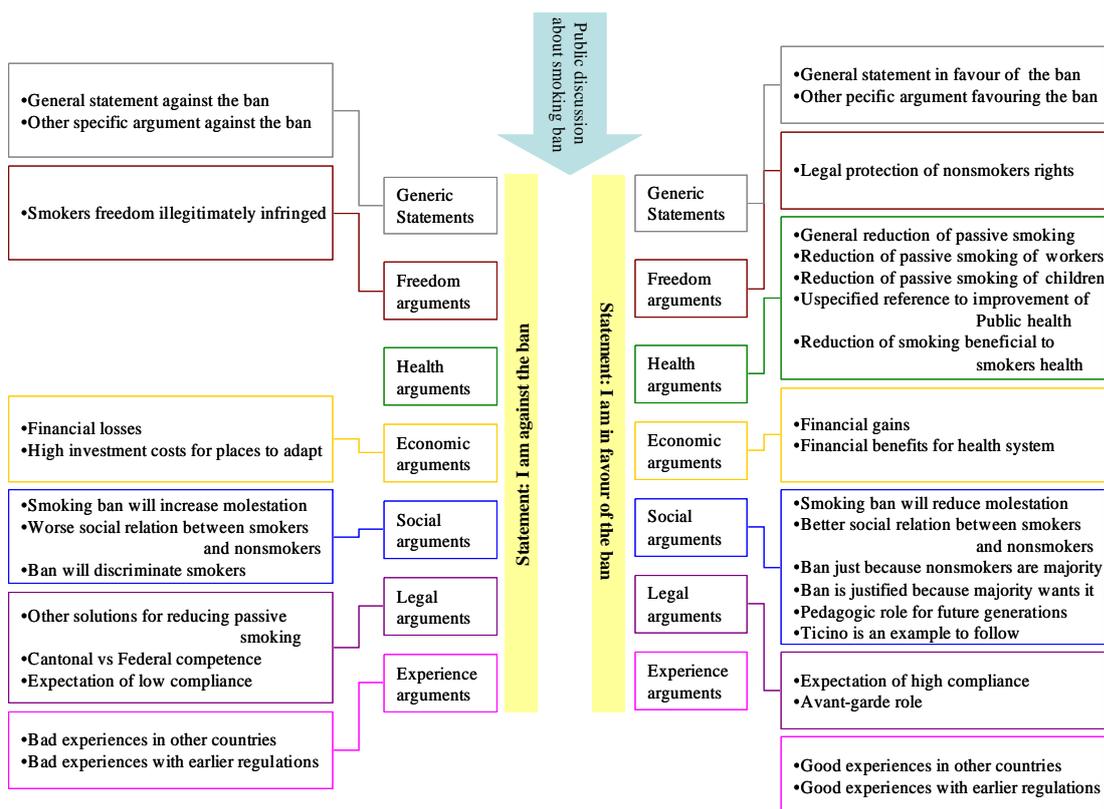

Figure 3.1 Map of the content analysis arguments

This map of arguments illustrates what content analysis captured. It is organized by argument type both against and in favor of the ban. The starting point of the map is the distinction between the two main generic standpoints: 'I am in favor of the ban' and 'I am against the ban'. The types of potential arguments were then identified. These arguments, coded in the codebook, can be classified in a new category of argument group. There are seven new groups and are almost (the health issue for the "I am against the smoking ban" standpoint is not characterized by any argument) mirror-like for two standpoints: generic statements, freedom arguments, health arguments, economic arguments, social arguments, legal arguments and experience arguments.

The unit of measure of the content analysis is the statement. Each article is coded in one or more (up to seventy and more) statements and each statement has an argument type and a tendency. The following table shows the most interesting frequencies with the percentages of statements related to each group of arguments. These frequencies can tell us more about the content of articles. They maintain the division by linguistic region.

Table 3.8 Frequency of argument groups

	Italian Swiss % (n=3639)	French Swiss % (n=4277)	German Swiss % (n=11861)	Swiss % (n=19777)
Too generic arguments	48	44	52	50
Health arguments	16	21	13	15
Freedom arguments	9	11	10	10
Social arguments	9	6	10	9
Legal arguments	6	9	7	7
Economic arguments	8	6	6	6
Experience arguments	4	3	2	3
Total	100	100	100	100

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

Table 3.8 highlights the fact that health arguments are used much more massively than the others, especially in French-speaking Switzerland. Freedom arguments and social arguments follow. The most interesting point in this table is the fact that the arguments are used more or less similarly in the different regions or, better, they have the same order of frequency in every region, with the sole exception of economic arguments in Ticino.

On the following pages each table refers to one group of the above-mentioned arguments. Each group is commented while tables for some are provided in the appendix.

The health arguments group's (Appendix 3, Table 1) most frequently used argument is *General reduction of passive smoking*; this result is reflected both in Ticino and in German-speaking Switzerland while in French-speaking Switzerland the most frequent

is *Unspecified references to improvement of public health.* Generally speaking, these are the two most frequently used health arguments throughout Switzerland, the former with a percentage of 38 and the latter with 34%. They clearly appear to be the strongest health arguments of the debate. The other three consist in a specification of the first and represent specific concerns for one or another category of people affected by passive smoking. The idea here seems to be that passive smoking is dangerous for everybody and its harmful effects are now common knowledge.

Two arguments of the freedom group are important and frequent; the first is made by the side against the ban while the other is made by the side in favor of the ban. However, the argument *freedom of smokers is illegitimately infringed* is used most by both (59% throughout Switzerland). This argument is used mostly in Ticino, 63%, but it has been widely used in French-speaking Switzerland too, 80%. A different situation is found in German-speaking Switzerland where the most frequently used argument (51%) is the *legal protection of non-smokers' rights.* It is particularly interesting to note that this argument, the strongest argument against the ban in Ticino, is so widely used in French-speaking Switzerland. This could indicate the presence of an ongoing debate in that region too.

Table 3.9 Frequency of the freedom arguments group

Freedom arguments group	Italian Swiss % (n=325)	French Swiss % (n=462)	German Swiss % (n=1173)	Swiss % (1865)
Freedom of smokers is illegitimately infringed	**63**	**80**	49	**59**
Legal protection of non-smokers' rights	37	20	**51**	41
Total	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

In the social arguments group three arguments are very frequent in Switzerland. They are *Smoking ban will reduce molestation, harassment; Ban just because non-smokers are the majority; Ban is justified because majority wants it.* The first argument is widely used in all regions, while the use of the other two arguments differs greatly. The argument *ban just because non-smokers are the majority* is used in French-speaking and German-

speaking Switzerland, while it is rarely used in Ticino. On the contrary, the argument *ban is justified because majority wants it* is widely used both in Ticino (44%) and in French-speaking Switzerland (31%).

Table 3.10 Frequency of the Social arguments group

Social arguments group	Italian Swiss % (n=323)	French Swiss % (n= 275)	German Swiss % (n=1223)	Swiss % (n=1821)
Smoking ban will reduce molestation, harassment	**33**	**20**	**26**	**26**
Ban just because non-smokers are the majority	2	**21**	**26**	**21**
Ban is justified because majority wants it	**44**	**31**	13	**21**
Ban will discriminate smokers, stigmatize smokers	5	14	16	14
Pedagogic role for future generations	5	3	13	10
Smoking ban will increase molestation, harassment	2	6	2	3
Better social relations between smokers and non smokers	1	3	2	2
Worse social relations between smokers and non-smokers	2	2	2	2
Ticino is an example to follow	6	1		1
Total	100	100	100	100

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

Table 3.10 highlights a fact whose origin lies in cultural difference: the perception of democracy. Both in Ticino and in French-speaking Switzerland the strongest argument of this group is *Ban is justified because majority wants it.* In German-speaking Switzerland this argument ranks only fourth along with *Pedagogic role for future generations,* which is almost inexistent in other regions. In German-speaking Switzerland the most frequent argument *Ban just because non-smokers are the majority* clearly also relates to the idea of the majority but not with what the majority wants but with its behavior. In the German culture, behavior must reflect desires and rationality,

and, since the majority of people don't smoke, this can *replace* a democratic majority. In French-speaking Switzerland and Italian-speaking Switzerland the people take into consideration a possible discrepancy between behavior and will, both from the smokers' and a non-smokers' point of view. This explains why smokers may even side with a smoking ban and vice versa.

In the case of the legal arguments group (Appendix 3, Table 2), the most frequent argument used throughout Switzerland is *Other solutions for reducing passive smoking*. This is a typical argument against the ban and is the absolute leader of the legal arguments group with 65% in Ticino, 73% in French-speaking Switzerland and 46% in German-speaking Switzerland. In actual fact, it is a reasonable argument to use against the proposal of a smoking ban. As I learned, in Ticino this is the only argument capable of prolonging the discussion. The argument in itself admits the fact that smoking is harmful and society has to take measures but it is also a proposal to find something different from a ban; for example new types of filters.

The economic arguments group (Appendix 3, Table 3) brings two principal arguments into the debate. Here again the absolute leader is *Financial losses.* This is clearly an argument against the ban and is one of the strongest together with freedom of smokers. In Ticino it registers 51%, in French-speaking Switzerland 57% and in German-speaking Switzerland 58%. However, it would be much more interesting to look at that argument and its evolution over time. At the end of this chapter it will be dealt with in a separate case study. The second argument by frequency is *financial gains*, pertaining to the side in favor of the ban, but even although this argument has a higher frequency than the others it only records a global 24% compared to the 56% for *financial losses.*

Another leading argument can be found in the experience group (Appendix, 3 Table 4) - *good experiences in other countries* - and is homogenously frequent throughout Switzerland (Ticino 88%, French-speaking Switzerland 77% and German-speaking Switzerland 69%). This is an argument in favor of the ban and is a clear sign, at least in Ticino, of the importance of the general trend of smoking ban laws in Europe and above all in Italy.

This preliminary focus helps identify the most important arguments of each semantic group but provides no information about the absolute importance of an argument compared to the others. The following table shows the frequencies of all the argument types.

Table 3.11 Arguments' frequency by linguistic region*

	Italian Swiss	French Swiss	German Swiss	Swiss
	(n=3639) %	(n=4277) %	(n=11861) %	(n=19777) %
General statement favoring the ban	35	37	33	34
General statement opposing the ban	9	5	8	8
Freedom of smokers is illegitimately infringed	6	9	5	6
General reduction of passive smoking	7	7	5	6
Unspecified references to improvement of public health	4	10	4	5
Other specific argument for the ban	3	1	6	4
Legal protection of non-smokers' rights	3	2	5	4
Other solutions for reducing passive smoking	4	6	3	4
Financial losses	4	3	4	4
Other specific argument against the ban	1	1	5	4
Reduction of passive smoking of people who works in bars etc	3	2	2	2
Smoking ban will reduce molestation, harassment	3	1	3	2
Ban is justified because majority wants it	4	2	1	2
Good experiences in other countries	3	2	1	2
Ban just because non-smokers are the majority		1	3	2
Financial gains	2	1	1	2
Ban will discriminate smokers, stigmatize smokers		1	2	1
Reduction of smoking beneficial to smokers' health	1	2	1	1
……………..	…….	……	……	…….
Total	100	100	100	100

*The complete table is in Appendix 3, Table 5

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

The argument types in grey are not so important from an argumentative point of view as they are only generic or specific assertions of statements (in favor or against the ban). Almost half of the coded statements fall within these argument types, but they are not

interesting solely from an argumentative point of view. They help understand the coverage of smoking bans in all the newspapers, also in the case of a discussion on a smoking ban in a country other than Switzerland.

The four most frequent proper arguments per region are code with the color assigned as of the model in Figure 3.1. Generally speaking, the frequency of the arguments in Switzerland is greatly affected by the German Swiss trend as German Swiss articles are twice the number of Italian and French Swiss articles. This apparent imbalance is due to two main facts: German-speaking Switzerland is the biggest part of the Swiss Confederation and hence there are more German Swiss newspapers; indeed Switzerland's only national newspapers are German (see table 3.2).

In Ticino newspapers the most frequent argument belongs to the health group: *general reduction of passive smoking*. This is clearly one of the arguments created by the anti-smoking side of the debate and it seems to be the strongest. The second argument comes from the other side of the discussion: *freedom of smokers is illegitimately infringed.* Also the third main argument is from the side against smoking ban: *other solutions for reducing passive smoking*. This argument is part of the legal arguments group. The last argument in terms of frequency belongs to another group: the social one. This argument is *ban is justified because majority wants it*. We can immediately see that the most frequently used arguments are divided almost equally between anti-ban side and pro-ban side. A second consideration is that numerous arguments made do not belong to just one semantic group.
However, in Ticino it is not possible to list just four main arguments because there are two other arguments with the same frequency as *ban is justified because majority wants it*. These arguments are *financial losses* and *unspecified references to improvement of public health* and confirm the tendencies of the other four: half are for the ban and half are against it.

In French Swiss newspapers four main arguments were half against and half in favor of the smoking ban. Firstly, *general reduction of passive smoking*, a health argument. Then, *freedom of smokers is illegitimately infringed*, a typical argument against the ban. The third argument is again an argument from the health field, *unspecified references to improvement of public health*. The final argument is from the legal field and is *other solutions for reducing passive smoking*.

In German Swiss newspapers, like in Ticino and in French-speaking Switzerland, an important argument is *freedom of smokers illegitimately infringed* and is the third main argument. The other three arguments belong to the pro-ban side of the discussion: two from the health group and the other from the freedom group. The health arguments are

general reduction of passive smoking and *unspecified reference to improvement of public health.* While the first was also often used in Ticino, the second was not. The freedom argument is *legal protection of non smokers' rights*. This argument should apparently fall into in the legal group but does not because it was used in directly opposition to *freedom of smokers* with the slogan *"freedom to breathe"*. For the German Swiss the main arguments belong to two groups only: freedom and health. The most interesting point is that the majority of the main arguments, three out of four, are from the pro ban side.

But even now that we know more about the arguments, something is still missing. How often are these arguments used during that period?

The following tables show the trend of the main arguments by linguistic region during the observation period. Above-average frequencies and those deserving further study are highlighted in bold.

The first table regards the Ticino newspapers. The most interesting thing to notice is that the three arguments against the ban are strong before the popular vote. The peaks of all arguments correspond to the peaks of the general trend of the Ticino newspapers; that is in the two quarters immediately before the referendum. Generally speaking, almost all four arguments fade away after that period but the *freedom* argument, *financial losses* argument and the one that claims *other solution for reducing passive smoking* almost completely vanish. The other three, *general reduction of passive smoking*, *ban is justified because majority wants it* and *unspecified references to improvement of public health* saw another peak between January 2007 and March 2007, perhaps because the definitive application of the law was near and the reasons for its introduction had to be reaffirmed. The main reasons for the ban are, therefore, *reduction of passive smoking* and the fact that the majority wants it. This latter reason is particularly strong because it is confirmed by the referendum, in which 79.1% voted in favor of the ban. The *financial losses* argument is strong from the outset, with a number of above-average statements back in October – December 2004. However, after the vote it seems to completely disappear, confirming the trend of other arguments against the ban. *Unspecified references to improvement of public health* is again a typical example of an argument for the ban. It was often used at the apex of the discussion (October 2005 – March 2006) and again immediately before the definitive application of the law.

Table 3.12 Ticino newspapers' main arguments

	General reduction of passive smoking	Freedom of smokers is illegitimately infringed	Other solutions for reducing passive smoking	Unspecified references to improvement of public health	Financial losses	Ban is justified because majority wants it
Oct 04 - Dec 04	19	16	**18**	**18**	**19**	6
Jan 05 - Mar 05	11	8	**26**	11	**14**	8
Apr 05 - Jun 05	**24**	**20**	**30**	15	38	**21**
Jul 05 - Sep 05	5	6	13	5	6	1
Oct 05 -Dec 05	**35**	**42**	**27**	**16**	25	23
Jan 06 - Mar 06	**72**	**101**	**30**	55	31	60
Apr 06 - Jun 06	5	1	2	36	3	6
Jul 06 - Sep 06	16	2	1	4	4	
Oct 06 - Dec 06	7	2		1		
Jan 07 - Mar 07	**35**	4	2	**20**	1	**17**
Apr 07 - May 07	8	3	4	5	3	
Sum	237	204	153	152	144	142
Average	21.5	18.5	13.9	13.8	13.1	12.9

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

The table below traces the development of the main arguments in French Swiss newspapers. The argument *other solution for reducing passive smoking* seems to have almost the same trend as in Ticino. After peaks between October 2005 and March 2006, it vanished. We don't know the reason for this but we can say that it is not due to the fact that the French Swiss media only reported news from Ticino. Nevertheless, it is difficult to imagine that articles about the smoking ban concerned only one other canton. The first

two arguments have a very similar trend where the main peaks correspond to the Ticino peaks. They are both in favor and against the ban and, even if after March 2006 the discussion began to peter out, they continued to exist. This is a difference between French-speaking Switzerland and Ticino. The third argument, the one about *general reduction of passive smoking*, has the most irregular trend. Its frequency remained fairly steady during the entire observation period and its main peak, three times the average, occurred at the end of the observation period, between January 2007 and March 2007.

Table 3.13 French Swiss newspapers' main arguments

	Unspecified references to improvement of public health	Freedom of smokers is illegitimately infringed	General reduction of passive smoking	Other solutions for reducing passive smoking
Oct 04 - Dec 04	14	18	27	23
Jan 05 - Mar 05	23	15	21	20
Apr 05 - Jun 05	**69**	21	26	**57**
Jul 05 - Sep 05	35	**43**	19	**35**
Oct 05 -Dec 05	**169**	**176**	**41**	**79**
Jan 06 - Mar 06	**52**	**66**	22	**60**
Apr 06 - Jun 06	5	7	**30**	1
Jul 06 - Sep 06	4	2	13	
Oct 06 - Dec 06	2	9	**29**	3
Jan 07 - Mar 07	22	13	**77**	
Apr 07 - May 07	13	1	8	
Sum	408	371	313	278
Average	37	33.7	28.5	25.3

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

The following table shows the frequencies of the main arguments in German Swiss newspapers. The most striking aspect is the high frequency of every argument at the end of 2006 and in the first quarter of 2007. It seems that some important fact, other than the ban in Ticino, occurred and made the discussion more lively in the German-speaking area. Other two peaks, which involve all the main arguments, correspond to those of the other linguistic regions: when the law was passed by parliament in Ticino and when the popular referendum decided for a general smoking ban in public places. Even if we already know that in French and German-speaking Switzerland the discussion is not about the events in Ticino, we can assume that they do have an effect also in the other linguistic regions. So, what else happened between the end of 2006 and the beginning of 2007 in German-speaking Switzerland?

Table 3.14 German Swiss newspapers' main arguments

	Legal protection of non-smokers' rights	General reduction of passive smoking	Freedom of smokers is illegitimately infringed	Unspecified references to improvement of public health
Oct 04 - Dec 04	45	**59**	46	38
Jan 05 - Mar 05	37	13	50	36
Apr 05 - Jun 05	**85**	38	46	40
Jul 05 - Sep 05	39	42	41	30
Oct 05 -Dec 05	**86**	**59**	**63**	**59**
Jan 06 - Mar 06	**77**	**79**	**105**	35
Apr 06 - Jun 06	16	26	16	40
Jul 06 - Sep 06	**57**	36	49	32
Oct 06 - Dec 06	**124**	**75**	**80**	**85**
Jan 07 - Mar 07	34	**108**	**60**	**43**
Apr 07 - May 07	1	48	16	26
Sum	601	583	572	464
Average	54.6	53	52	42.2

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

Another dimension attributed to each statement was tendency. As shown in figure 3.1, the type of arguments coded were typical of one or other side of the discussion. That is, some arguments were created to assess the position "in favor of the ban" and others to assess the one "against the ban". Tendency was added in order to understand if the argument itself was used in the statement in the proper tendency or in the opposite tendency. The observation of tendencies helps understand the debate between the same arguments. The tables below present the main arguments by linguistic region and by tendency.

In the Ticino newspapers (Appendix 3, Table 12) we can see that the two arguments in favor of the ban are not counter-attacked at all. It seems to be impossible to directly oppose such a strong argument as *ban is justified because majority wants it.* On the contrary, it is interesting to look at the two arguments against the ban, which were counter-attacked, especially in the first part of the debate before the referendum.

In the French Swiss newspapers (Appendix 3, Table 13), three of the four main arguments were hotly debated. Generally speaking, the most intense debate ended in the first quarter of 2006, as if the facts of Ticino curbed the possibility of counter-attacking some arguments. The only argument that was used only in its proper tendency was the *general reduction of passive smoking*.

In German Swiss newspaper (Appendix 3, Table 14) there is just one argument which is directly attacked: *freedom of smokers.* Debate on this argument doesn't seem to have a clear end but continues also after the important facts of Ticino.

The results of this section show one important point of the research: one of the findings that can be generalized is the recognition of patterns in the discussion of the smoking ban. Generally speaking, when people discuss the smoking ban what issues are at stake? There are many potential arguments (Table 3.11) but in the end only a few of them are used and they are more or less the same in the different regions where the smoking ban is discussed. The convergence on a few frames is shown also in Menashe and Siegel's study of (1998) tobacco company and antismoking advocates' framing of tobacco. As they point out with the words of Jacobson "the tobacco industry shifted its opposition to smoking restrictions to a broadly conceived argument equating smoking behavior with other personal liberties, such as freedom of speech and protection against racial discrimination". On the other hand, anti-smoking advocates used arguments from the health frame. This hypothesis is even more plausible if it is also grounded by the frames used during the tobacco century, as shown in chapter 0.

3.4.1 Combination of arguments

The arguments are many and their combinations are numerous. A debate based on argumentation can include argumentative strategies such as the simple combination of two or more arguments. This section takes into account one specific combination: *ban is justified because majority wants it* and arguments about passive smoking. In Ticino these were the strongest arguments in favor of the ban because they involve democracy and health, two deeply rooted values.

There were 36 occurrences of these two arguments used together in 733 articles from Ticino newspapers. In most cases the source using these arguments is the same so we could probably speak about an argumentative strategy. However, it is not possible to say anything else but the quantity of the occurrences. While a content analysis has the advantage of collecting a huge quantity of data, it is also forced to schematize the content. In this way, even if we can count the number of occurrences of the relation we cannot say anything about the relation itself. Talking about arguments is clearly a limit of expression.

3.5 Distinction between generic statements and proper arguments: hypothesis of a change of framing

The last section overlooked a huge number of generic statements. This approach cannot be sustained because the number is undoubtedly significant. So far we have assumed that they cannot tell us anything interesting about the development of the debate but if we look at the numbers they seem to be the majority of statements. As explained above, these types of statements are useful in recording the existence of a discussion on the smoking ban in general. It is now time to look at them in more detail to avoid the risk of superficially assuming that they represent a large amount of data which we cannot say anything about. In table 6 there is a high number of *other specific arguments against the ban* in the German Swiss region. We created those types of statements in order to register all possible arguments not present in the codebook. After collecting data the occurrences were recoded, creating new argument types when necessary. For example, the argument *pedagogic role for future generation* was created after this recoding. Indeed, there was a significant number of statements with that argument, resulting in the need for other categories of arguments. The cases where statements were not recoded in other categories represent all those statements that advance a highly specific and rare argumentation and which were not sufficiently numerous to create a new category. The number of these cases is higher in German-speaking Switzerland than in the other linguistic regions.

Generally speaking, we have to consider these types of statements, along with the more general statements in favor or against the ban, as *generic statements*. They are therefore not considered in the study of the arguments involved in the debate. But before setting these statements aside we have to consider their role in the debate. In the following table (3.15) the frequencies of generic statements and proper arguments are divided by linguistic region.

Table 3.15 Generic statement and proper argument frequencies over time

	Italian Swiss		French Swiss		German Swiss		Swiss	
	Generic statements %	Proper arguments %	Generic statements %	Proper arguments %	Generic statements %	Proper arguments %	Generic statements %	Proper arguments %
Oct 04 - Dec 04	43 (142)	57 (187)	39 (116)	61 (181)	48 (388)	52 (428)	45 (646)	55 (796)
Jan 05 - Mar 05	52 (129)	48 (121)	52 (169)	48 (153)	44 (234)	56 (295)	48(527)	52 (564)
Apr 05 - Jun 05	48 (236)	52 (256)	34 (168)	66 (326)	45 (382)	55 (466)	43 (791)	57 (1053)
Jul 05 – Sep 05	72 (161)	28 (62)	40 (174)	60 (257)	37 (195)	63 (336)	45 (530)	55 (655)
Oct 05 -Dec 05	51 (299)	49 (285)	30 (288)	70 (679)	48 (588)	52 (630)	42 (1175)	58 (1594)
Jan 06 - Mar 06	32 (303)	68 (657)	36 (191)	64 (340)	45 (607)	55 (744)	39 (1101)	61 (1741)
Apr 06 - Jun 06	63 (68)	37 (40)	60 (178)	40 (119)	46 (475)	44 (372)	58 (721)	42 (531)
Jul 06 – Sep 06	58 (79)	42 (57)	62 (108)	38 (67)	65 (1024)	35 (562)	64 (1211)	36 (686)
Oct 06 - Dec 06	70 (56)	30 (24)	60 (115)	40 (76)	55 (1192)	45 (977)	56 (1363)	44 (1077)
Jan 07 - Mar 07	47 (121)	53 (135)	66 (316)	34 (162)	53 (735)	47 (653)	55 (1172)	45 (950)
Apr 07 - May 07	77 (170)	23 (51)	67 (62)	34 (32)	60 (344)	40 (234)	65 (576)	35 (317)
Sum	48 (1764)	52 (1875)	44 (1885)	56 (2392)	52 (6164)	48 (569)	50 (9813)	50 (9964)
Average	160	170	171	217	560	518	892	906

In this table the number of generic statements or proper arguments in a quarter is indicated in brackets while the number outside the brackets is the percentage. The whole percentage is given by the sum of generic statements and proper arguments of a linguistic region in a single quarter.

*Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano*

The ratio between generic and proper arguments is not so different in the three linguistic regions. German-speaking Switzerland has 52% of generic statements and 48% of proper argumentative statements, while French-speaking Switzerland seems to be a little bit more argumentative with 56%. Ticino shows the opposite situation to that of German-speaking Switzerland with a total of 48% of generic statements and 52% of proper arguments. In all cases the generic statements are about half the total number of statements.

As regards differences between linguistic regions, another ratio should be noted in the overall dataset: statements to articles. The number of articles from French Swiss newspapers was 521 while those of Italian Swiss ones were 733; however, the statements for Ticino totaled 3,639 compared to 4,277 for French-speaking Switzerland. Here is the ratio by linguistic region:

- Italian-speaking Switzerland: 5
- French-speaking Switzerland: 8.2
- German-speaking Switzerland: 6.2

Even although there is a big difference in the ratio, it is not a problem for two main reasons. The first is that we knew about this difference from other studies conducted on Swiss newspapers with content analysis (RADO project, Institute of Communication and Health, University of Lugano): an example of the organ donation project. The second regards the structure of newspapers in the different linguistic regions. Both German and French Swiss articles are very long while in the case of Ticino there are different kinds of articles: short news and proper articles. So, even if the number of articles in Ticino is 733, the total number of lines is less than that of the French Swiss newspapers with their 521 articles.

After these considerations about the consistency of the overall dataset we can split it into three, one per linguistic region, thus avoiding misinterpretation caused by the marked difference in the numbers of statements. Table 3.15 allows discussion on the ratio between statements and articles in the different regions. But the table in itself also tells us something interesting that can be referred back to the topic of frames. The following pages provide a more detailed picture of the distinction between generic statements and proper arguments over time. In the following graphs we can see the development of the different kinds of statements in each linguistic region. In each graph the pink line indicates for the trend of proper arguments, while the blue line represents generic statements.

Graph 3.6 Distribution of generic statements and proper arguments in Italian Swiss newspapers
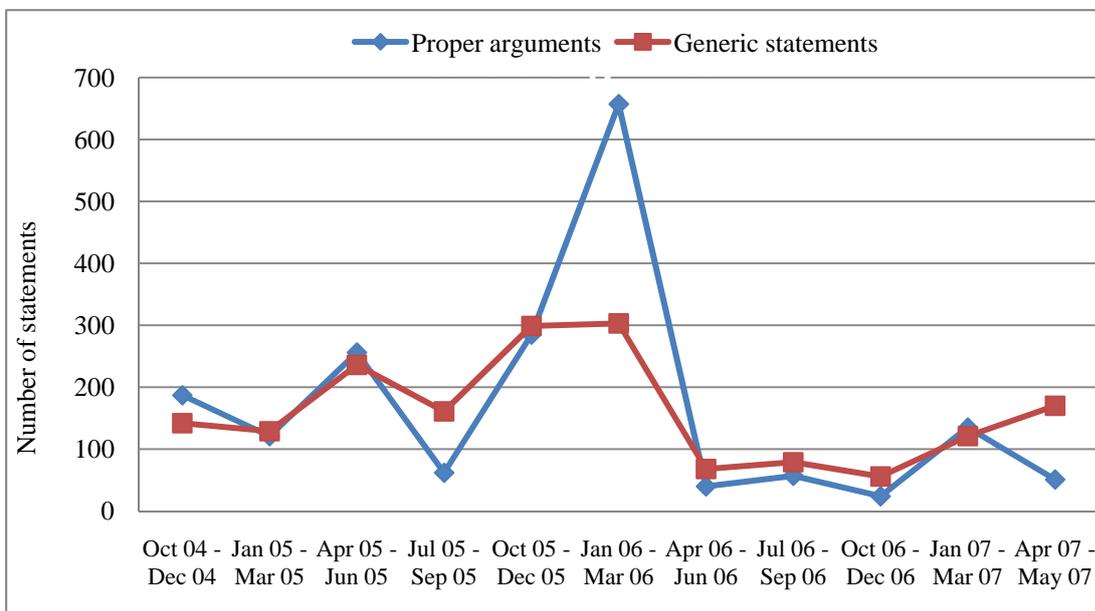
Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

Graph 3.7 Distribution of generic statements and proper arguments in French Swiss newspapers
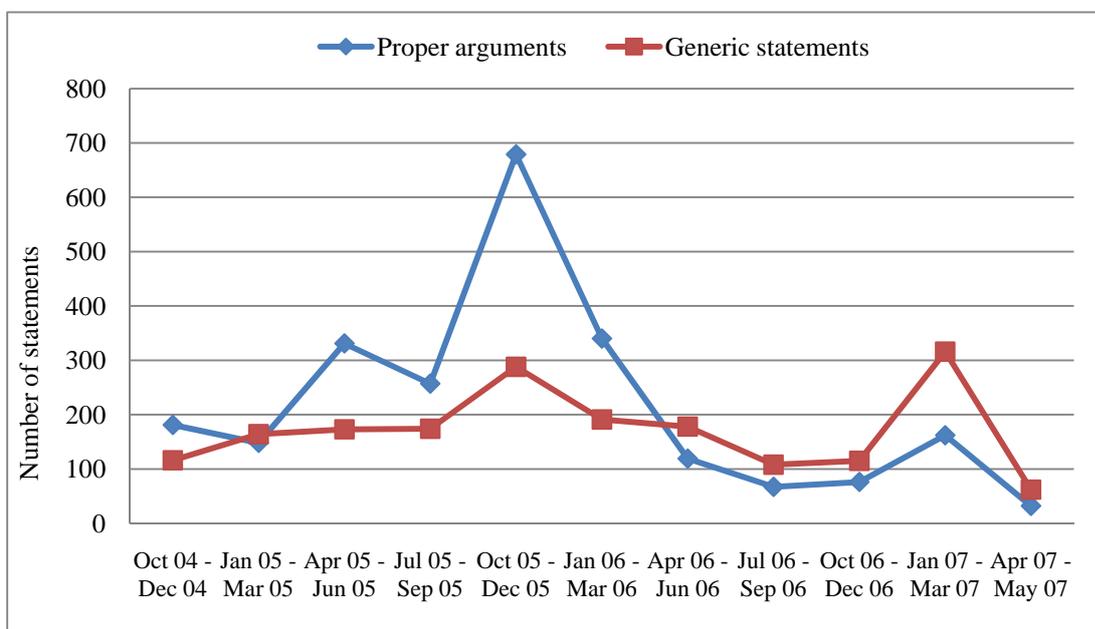
Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

Graph 3.8 Distribution of generic statements and proper arguments in German Swiss newspapers
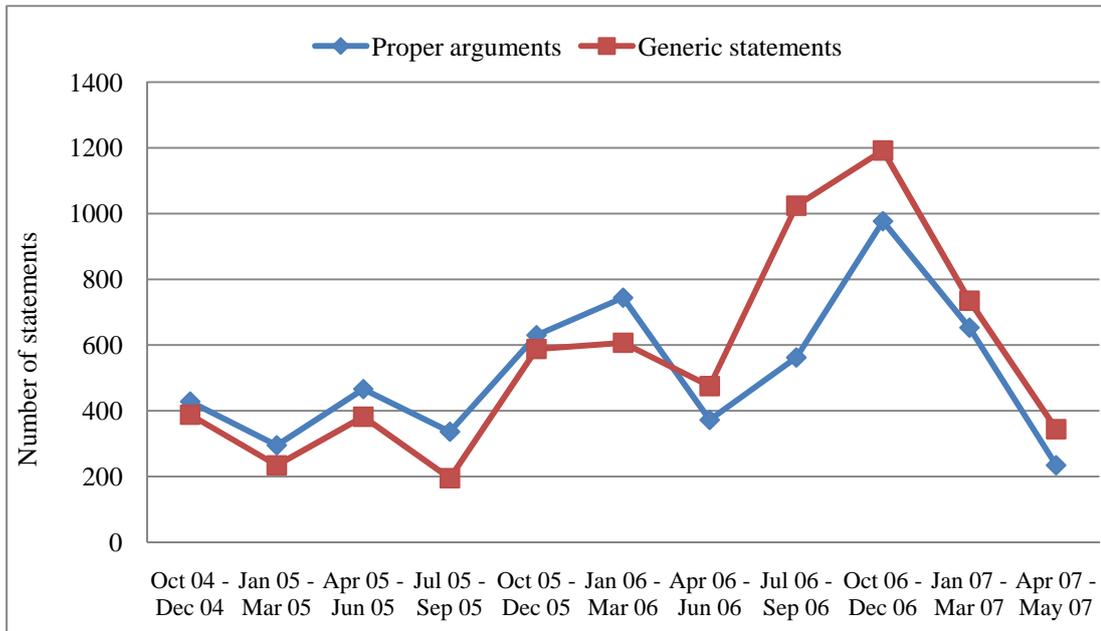
Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

These three graphs show us something interesting: after the referendum in Ticino the generic statements' line rises above the proper arguments' line in all the linguistic regions. It seems that the fact that the smoking ban had become a reality, at least in one Canton, made the debate less heated. However, if we look more closely, we can see that it is not exactly that the debate ends but that its argumentative nature changes. It is even more interesting to notice that this happens not only in Ticino but in all the linguistic regions even although they have a different history and are not primarily discussing the events in Ticino. It may be reasonable to assume that the social fact of the smoking ban changed something also in the other linguistic regions. On the other hand, the process of constructing a social fact is long, complicated and can collectively affect people's mentality.

Indeed, this is what happened also in the other countries that had already applied a smoking ban law. Ticino is the fifth country to have introduced smoking restrictions; others had already experienced the same process. A smoking ban in public places is initially supported by a large majority of the population. A survey conducted by DOXA shows for example that in 2001 in Italy 83% were already in favor of a smoking ban. However, after the law comes into force there is even a further increase in this trend. In

March-April 2005, i.e. three months after the enforcement of the law, in Italy DOXA registered 90% in favor of the ban (Gorini et al. 2007, Gallus et al. 2006).

In Switzerland, after the January - March 2006 quarter (the referendum took place on 12 March) generic statements outnumber proper arguments. The general discussion about the smoking ban still exists but it is less argumentative and more *anecdotical.* Newspapers continue to talk about smoking ban, especially the German Swiss ones, but they refer more to the smoking ban as a fact than to the reasons for and against it. Something seems to have changed. So once again, after a significant change in the existing situation, smoking changed its framing (chapter I), from argumentative to anecdotical.

What are the characteristics of that change? It is important at this point to consider each argument, taking into consideration generic statements as well. We will take a closer look at their development over time, paying special attention to the tendency in which they are used, if they are used properly or are counter-attacked.

First of all we have to examine the percentage of statements at the end of the Jan-Mar 06 quarter in the different linguistic regions in order to understand to what degree the impression given by the graphics is backed up by the data.

In Ticino 2,838 statements (78%) had already been produced by the end of the sixth quarter (Jan-Mar 06, there are eleven quarters in total). The percentage of statements for the majority of argumentative categories falls between a minimum of 70% and a maximum of 100%. The arguments *Financial benefits for health system (77%), Expectation of high compliance (79%), Unspecified references to improvement of public health (79%)* record around 70%. The arguments *Worse social relations between smokers and non-smokers (83%), Pedagogic role for future generations (88%), Ban will discriminate smokers, stigmatize smokers (81%), High investment costs for places who wants to adapt (83%), Legal protection of non-smokers' rights (87%), Ban is justified because majority wants it (84%), Avant-Garde role (86%)* register around 80%. The arguments *Reduction of passive smoking of children (91%), Smoking ban will reduce molestation, harassment (96%), Reduction of passive smoking of people who works in bars etc (90%), Good experiences in other countries (94%), Freedom of smokers is illegitimately infringed (94%), Other solutions for reducing passive smoking (94%), Financial losses (92%)* register between 90% and 100%. So far I have listed all the argument categories, but there are two other types with a high frequency in the seventh quarter: *other specific arguments favoring the ban* (91%) and *general statement against the ban* (94%). The first has an overall number of statements of 103 while the general argument favoring the ban has 1,269 occurrences and at the end of the seventh quarter

was used only in 65% of the cases. This confirms the theory of a less argumentative tendency in the newspapers after the seventh quarter. Another point can be made: that, generally speaking the statements against the ban are less frequent after that period as is clearly demonstrated by the *general statement against the ban*, one of the most frequent, which was already used (94%) at the end of March 2006.

What more can analysis of the arguments tell us? If it is true that the argumentative tendency bows out and leaves the stage to the anecdotal one, then surely also the debate on the arguments must end at this point. We will now consider three of the most hotly debated arguments in Ticino, all created by the anti-smoking ban side.

Table 3.16 Italian Swiss newspapers' most debated arguments divided by tendency

	Freedom of smokers is illegitimately infringed		Other solutions for reducing passive smoking		Financial losses	
	Favor	Against	Favor	Against	Favor	Against
Oct 04 - Dec 04	3	13	4	14	8	11
Jan 05 - Mar 05	3	4	7	19	6	8
Apr 05 - Jun 05	5	15	7	23	14	24
Jul 05 - Sep 05		6	1	12	2	4
Oct 05 -Dec 05	10	32	2	25	8	17
Jan 06 - Mar 06	33	68	4	26	18	13
Apr 06 - Jun 06	1			2		3
Jul 06 - Sep 06		2		1		4
Oct 06 - Dec 06	1	1				
Jan 07 - Mar 07	1	3		2		1
Apr 07 - May 07	1	2		4		3
Sum	58	146	25	128	56	88

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

Table 3.16 confirms the hypothesis of heated debate until the January- March 2006 quarter while after that period discussion and attack of the arguments die out.

The situation in French Swiss newspapers after the sixth quarter will now be described. At the end of March 2006, 71% of the total number of statements had already been produced. The categories of arguments recorded were, once again, except in a few cases, between 70% and 100% of the overall occurrences. The following argument types are in the range of 70%-79%: *Ban is justified because majority wants it (71%) , Good experiences in other countries (78%), Good experiences with earlier regulation in Swiss (77%), Smoking ban will increase molestation, harassment (71%).* The argument categories between 80% and 89% are *Reduction of smoking beneficial to smokers' health (86%), Unspecified references to improvement of public health (89%), Worse social relations between smokers and non-smokers (80%), Financial losses (80%), Expectation of low compliance (86%).* The following argument types were already expressed in a range of between 90% and 100% of their overall presence during the period: *Legal protection of non-smokers' rights (96%), Smoking ban will reduce molestation, harassment (96%), Better social relations between smokers and non smokers (100%), Ban just because non-smokers are the majority (95%), Financial gains (96%), Financial benefits for health system (90%), Expectation of high compliance (95%), Freedom of smokers is illegitimately infringed (91%), Other solutions for reducing passive smoking (99%), High investment costs for places who wants to adapt (95%), Bad experiences in other countries (100%), Bad experience with earlier regulation in Switzerland (100%).*

The *general statement favoring the ban (59%), other specific argument for the ban (37%)* and *other specific argument against the ban (0%)* will still be widely used after the sixth quarter while the *general argument against the ban (72%)* has already been widely used.

Other exceptions to the general trend are *general reduction of passive smoking (50%), reduction of passive smoking of people who works in bars and restaurants (59%), reduction of passive smoking of children (62%), avant-garde role (17%), pedagogic role for future generations (57%), ban will discriminate smokers, stigmatize smokers (56%), cantonal vs. federal competence (19%).* However these cases, considered to be exceptions, are already at least partly used at the end of the sixth quarter. The real exceptions remain *avant-garde role (17%), cantonal vs. federal competence (19%),* but they are still not significant because their overall number is only 12 statements for the first and 27 for the second.

In French Swiss newspapers the argument types are more generally discussed than in the Ticino and German Swiss ones. We will now observe the development of the discussion in the seven argument types considered. The interesting point here is the similarity with Ticino: almost all the arguments are from the side against the ban.

Table 3.17 French Swiss newspapers' most debated arguments divided by tendency

	Unspecified references to improvement of public health		Freedom of smokers is illegitimately infringed		Ban will discriminate smokers, stigmatize smokers		Other solutions for reducing passive smoking		Financial losses	
	Favor	Against	Favor	Against	Favor	Against	Favor	Against	Favor	Against
Oct 04 - Dec 04	14		2	16		1	17	6	4	4
Jan 05 - Mar 05	20	3	1	14		2	12	8	5	11
Apr 05 - Jun 05	65	4	14	7		9	15	42	5	11
Jul 05 - Sep 05	35		12	31		3	14	21	5	14
Oct 05 -Dec 05	77	92	61	115	1	5	18	61	9	15
Jan 06 - Mar 06	37	15	23	43	1		21	39	19	12
Apr 06 - Jun 06	5		1	6	10			1	3	1
Jul 06 - Sep 06	4		2	7		2			4	1
Oct 06 - Dec 06	2		1	1	3		2	1	2	3
Jan 07 - Mar 07	22		4	9	1	1			8	5
Apr 07 - May 07	13		1						1	
Sum	294	114	122	249	16	23	99	179	65	77

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

Table 3.17 again confirms what has already been seen in table 3.16. The debate ends after the January - March 2006 quarter. The fact that proper discussion ends in that period is meaningful; indeed, the main peak in French Swiss newspapers is found in the previous quarter. But, yet again, the discussion ends only after the quarter in which the referendum was held in Ticino.

The situation of the German Swiss newspapers at the end of sixth quarter is the following. The same trend is not as evident as in the other linguistic regions but it can be inferred from graph 4 where we can see a general increase in the statements' frequencies at the point where the blue line rises above the pink one. At the end of the sixth quarter German Swiss newspapers had published only 45% of the overall number of statements. However, we can see a shift in the discussion to a more anecdotal frame. Of the 32 argument types, 12 are below 50%: *Ban just because non-smokers are the majority*

(28%), Reduction of passive smoking of people who works in bars etc (35%), Avant-Garde role (42%), Pedagogic role for future generations (6%), Worse social relations between smokers and non-smokers (38%), Other solutions for reducing passive smoking (48%), Financial losses (40%), High investment costs for places who wants to adapt (34%), Cantonal vs. Federal competence (28%). As mentioned above, the tendency of the media discussion to be more anecdotal is confirmed by these data. *General statement favoring the ban (43%), other specific argument for the ban (21%)* and *other specific argument against the ban (14%)* are, together with the previous list, below 50%. Moreover, this percentage is the most significant if we look at the occurrences: *General statement favoring the ban (3,924), other specific argument for the ban (656)* and *other specific argument against the ban (631),* that is to say, 44% of the total of statements. It should also be noted that the other 19 argument types are above 50% even if the frequencies are not as high as in the other linguistic regions.

As we did for Ticino and French-speaking Switzerland, in the table below we take a closer look at the arguments debated. Also in German-speaking Switzerland the debated arguments are typical of the against the ban side.

German-speaking Switzerland has a different history, as has already been shown by graph 3.8 and as will be shown in further graphs. The discussion here is lively even after the January-March 2006 quarter, demonstrated by the fact that the main peak in this region is registered after that period. But even if this trend seems to be different from the others, the distinction between the number of proper arguments and generic statements still confirms the hypothesis of a change of framing. This change is a consequence of the creation of a new social fact in a part of Switzerland: the smoking ban law in Ticino.

Table 3.18 German Swiss newspapers' most debated arguments divided by tendency

	Freedom of smokers is illegitimately infringed		Ban will discriminate smokers, stigmatize smokers		Other solutions for reducing passive smoking		Financial losses		Cantonal vs. Federal competence	
	Favor	Against	Favor	Against	Favor	Against	Favor	Against	Favor	Against
Oct 04 - Dec 04	8	38	1	5	4	13	11	20		1
Jan 05 - Mar 05	6	44		9	3	23	7	11		
Apr 05 - Jun 05	3	43	4	8	1	23	8	16	8	1
Jul 05 - Sep 05	1	40	1	23	10	24	3	19		1
Oct 05 -Dec 05	7	56	14	19	4	30	9	29		2
Jan 06 - Mar 06	19	86	8	31	7	38	12	30	1	14
Apr 06 - Jun 06	4	12	2	4	12	25	13	6	1	27
Jul 06 - Sep 06	10	39		13	7	21	22	44	2	2
Oct 06 - Dec 06	15	65	6	13	7	61	14	72	2	6
Jan 07 - Mar 07	5	55	2	22	20	34	12	53	4	18
Apr 07 – May 07	3	13	1	6		5	3	24	1	10
Sum	81	491	39	153	75	297	114	324	19	82

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

As expected, the general trend of German Swiss newspapers is also reflected in table 3.18. The arguments are still debated after the sixth quarter, again confirming the findings presented in the second section: the debate in German-speaking Switzerland intensified after the main peaks in the other two regions.

3.6 A debate throughout Switzerland

The DIFU project was set up within the framework of a parliamentary debate on a possible smoking ban in public places in Ticino. It may be possible to learn something more about this debate by studying the linguistic regions of Switzerland separately, isolating Ticino from the others. The regulatory situation in Ticino developed following the timeline below:

- October 2004: first proposal in parliament on a smoking ban law;
- January 2005: smoking ban comes into force in Italy;
- October 2005: after one year of discussion the original proposal of law is passed in Parliament;
- December 2005: the political party the Lega collects enough signatures to have a referendum;
- March 2006: in the referendum about 79% of the population vote in favor of the ban;
- April 2006: the law comes into force and grants establishments one year to adapt the premises;
- April 2007: the law definitely comes into force.

We can assume that examination of data from Ticino newspapers will bring to light peaks corresponding to these moments, while in the other two linguistic regions (French and German) the debate should develop more uniformly.

Graph 3.9 Newspapers' coverage of the smoking ban in the three Swiss linguistic regions between October 2004 and May 2007
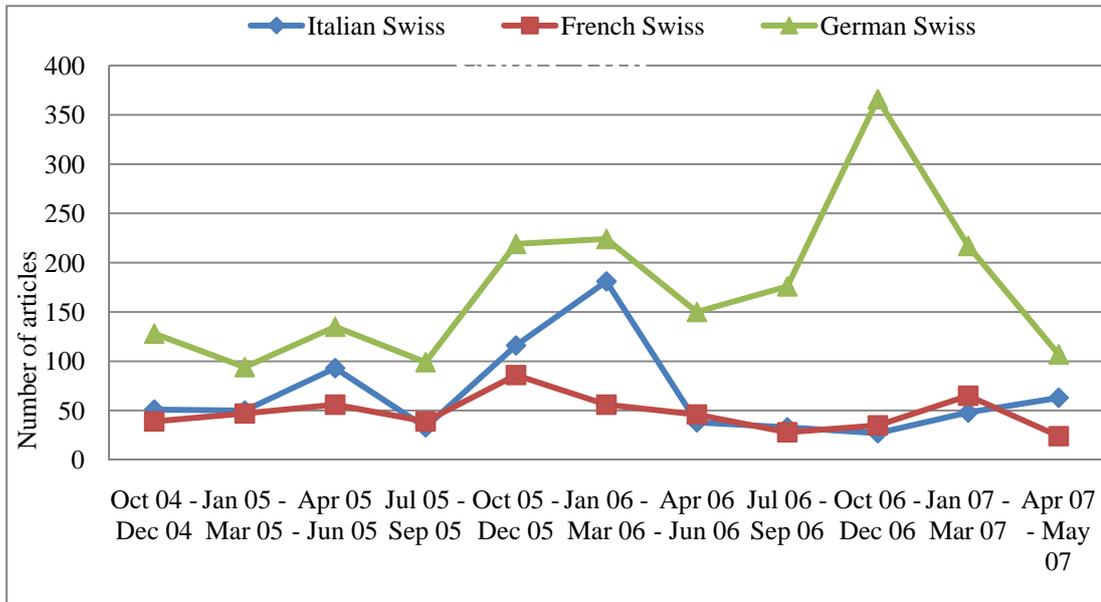
Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

The graph above shows the frequencies of articles over time by linguistic region and if the trends are similar or, as hypothesized, dissimilar. As we can see, there are three main peaks in the Italian Swiss newspapers' line. The first is in the third quarter (Apr 05 - Jun 05): in this period the first positive reactions of the Italian population were communicated and the Ticino Parliament was resolutely discussing and drafting proposals on a smoking ban law. The second and third peaks are registered at the end of 2005 and at the beginning of 2006, the most crucial period for the decision about the law, and indeed this final peak is the highest. In October 2006 the Ticino parliament passed a law almost unanimously but some time later the only party that had always been against the law, the Lega, promoted a popular referendum with a collection of signatures. This was December 2006. On 12th March 2007 the people of Ticino were called on to express their opinion and voted in favor of the ban (79.1%). The fourth and final peak corresponds to the application of the law, in April 2007, when discussion on some exceptions to the law still continued.

The explanation of the correspondence of the peaks in the frequency of articles with the regulatory situation of Ticino appears to be convincing. Now we have to look at the other linguistic regions to see if they have a steady trend. But also the French and German Swiss articles register four and five peaks. Two of these correspond with those

of the Italian Swiss newspapers: at the end of 2005 and at the beginning of 2006. What could the reason for this be? Maybe newspapers are simply reporting events taking place in Ticino. But if we look more closely we can see that the other peaks do not have the same timing as those of the Italian Swiss newspapers. The three highest peaks in German Swiss newspapers occur in an almost silent period in Ticino newspapers.

The explanation of a discussion in the print media based only on the situation in Ticino was clearly too simplistic. Moreover, so far these graphs have told us nothing except the frequency of the topic in the newspapers. My theory is that there was an authentic debate about the smoking ban. The data has to be processed more in detail to discover if there are specific reasons for this theory of a debate behind the trend of the line in the first graph.

As demonstrated by the media in Ticino, an event such the introduction of a smoking ban is represented by the media in a fairly linear way. During the period between October 2005 and March 2006, which is one of the most vivid in the discussion, newspapers seem to loyally report what happened in the real discussion. Written media follow the public discussion because it is full of episodes which are interesting for the entire population. They follow the politic decisions and fully cover them, as it is in the case of Ticino referendum, because that is what people want to know about. We have to find the real voices of the debate in the Ticino print media. How deeply rooted are the voices represented in the media in the occurrence of events? It is the debate itself that forces its representation in the media, and there is something, events and people, that drive things in reality. How does the debate develop in the media? This is an event dependent vision and it is necessary to understand how plausible this viewpoint is for events in Ticino and how much the other part of Switzerland discusses it or other topics.

The graph below shows the trend and number of statements in the three different regions of Switzerland. Their distribution must be studied in order to compare it with another graph related to the event (graph 3.11).

Graph 3.10 Distribution of statements in Swiss media coverage by linguistic region
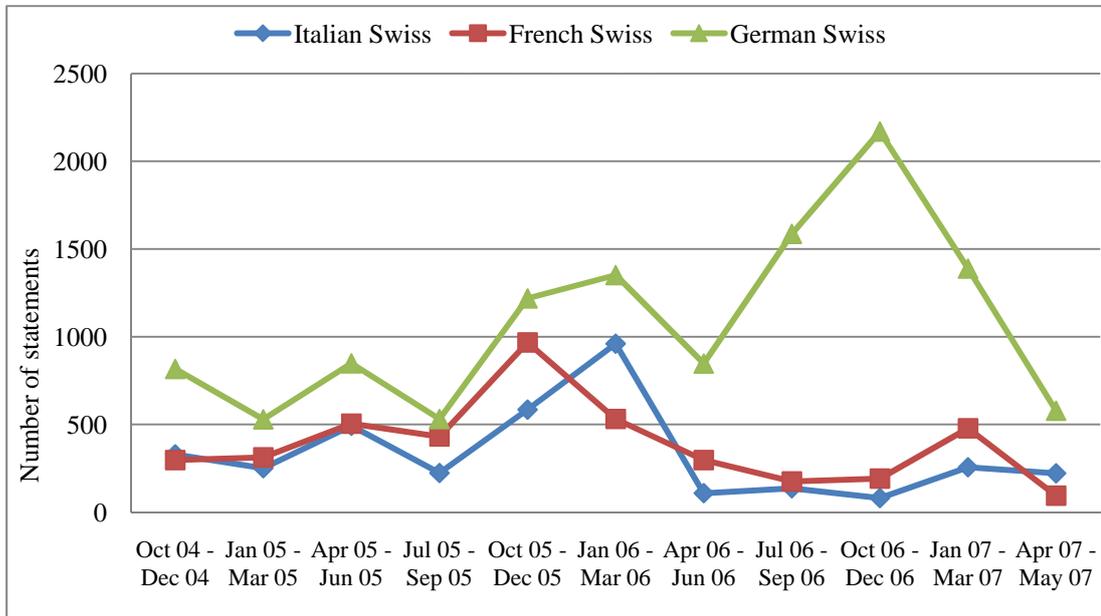
Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

There is an interesting correlation between the newspaper coverage of the three linguistic regions. As from October the lines run almost parallel with peaks and troughs at roughly the same time. This situation remains unvaried for more than one year, until October-December 2005. After that there is a marked difference in the three trends: the French and Italian Swiss newspapers continue to have a similar evolution, with only one exception in the Jan-Mar 06 quarter, while the German Swiss line continues to grow steadily, with the main peak in Oct-Dec 06 when the other two regions are dropping.

What is the relationship between these trends and the introduction of the smoking ban law in Ticino? The following graph shows this.

Graph 3.11 Distribution of statements in the three Swiss linguistics regions discussing the Ticino smoking ban or discussing smoking bans other than Ticino
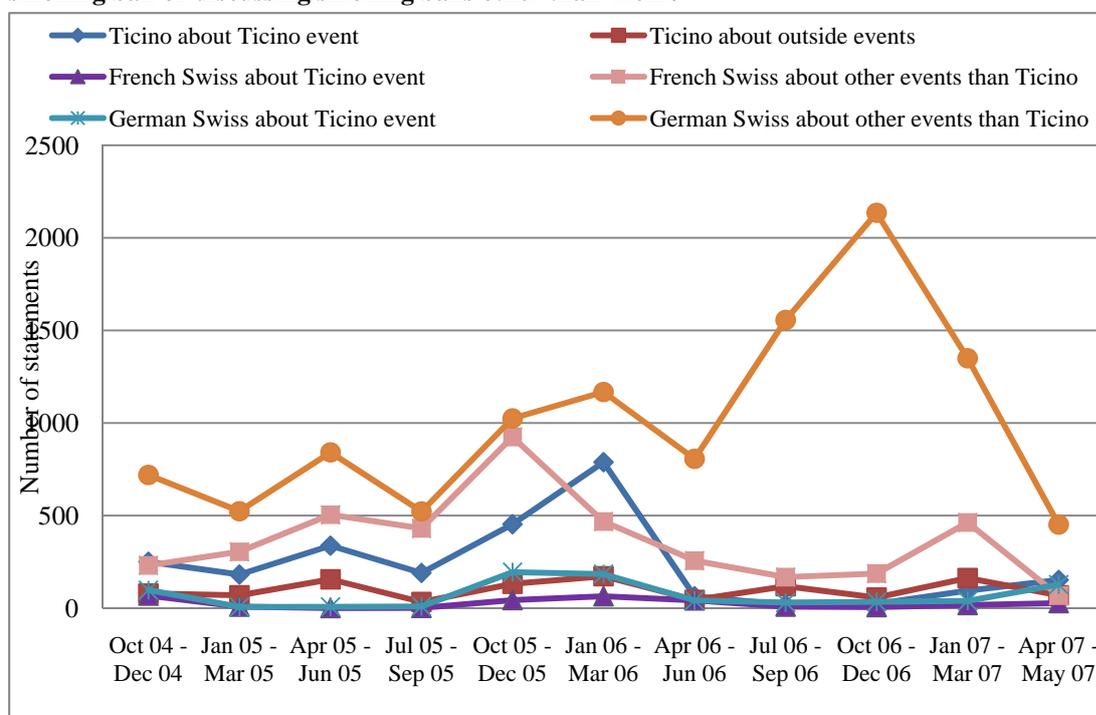
Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

In graph 3.5 the lines are in different shades of red and blue. The blue lines refer to the smoking ban in Ticino, the red ones to other smoking bans. The light blue line represents French Swiss articles about the Ticino smoking ban: the number of statements is always less than 100 per quarter and its peaks correspond with that of the Ticino newspapers. The dark blue line refers to German Swiss newspapers; even if it is a little higher than the French Swiss line, it has more or less the same trend. As mentioned above, these two trends are similar to that of Ticino. Observation of the red lines leads us to conclude that the debate on smoking bans was of general interest and was covered by the newspapers in all three linguistic regions. Indeed, the red lines are much higher and influence the general trend shown in graph 3.5. By comparing the situation of Ticino with other linguistic regions, it is possible to assume that the red lines represent the debate in the relative linguistic regions.

However, one point in the last three graphs requires more in-depth investigation. The trends are similar from the beginning (Oct – Dec 2004) to the middle of the observation period (Jan - March 2005) while there is a divergence between the German Swiss and Italian and French Swiss coverage in the second part of the observation period. What are the reasons for this parallelism? And what elements can explain the subsequent

divergence? To answer these questions it is important to distinguish between stable and unstable elements of the discussion and a fundamental means for doing this offered by content analysis is the argument category. The main arguments used in the different regions can help identify the reasons for the trends in the debate. The most significant peaks of each linguistic region are taken into account in the table below. In the case of Ticino the observed period extends from July 2005 - March 2006, nine months. In the French Swiss case the main peak is recorded between July 2005 and December 2005, while in the German Swiss case the period extends from April 2006 to December 2006. Two points will be considered for each period to better understand what is happening. The first is at the beginning and is the lowest point of the line (P_{min}), the second is the highest point of the period (P_{max}). The value in the boxes in table 3.2 indicates the ratio between the number of statements of a group of arguments and the total number of statements of the linguistic region in the quarter examined. This index will show the prevalence of one or another frame of the smoking ban in each linguistic region.

Table 3.19 Comparison of the lowest and highest points in the peaks of the linguistic regions

	Italian CH		French CH		German CH	
	P_{min}	P_{max}	P_{min}	P_{max}	P_{min}	P_{max}
	Jul-Sep 05	Jan-Mar 06	Jul-Sep 05	Oct-Dec 05	Apr-Jul 06	Oct-Dec 06
	(n=223)	(n=960)	(n=431)	(n=967)	(n=847)	(n=2169)
Too Generic arguments	0.72	0.32	0.40	0.30	0.56	0.55
	(161)	(303)	(174)	(288)	(475)	(1192)
Health arguments	0.10	0.20	0.18	0.25	0.10	0.12
	(23)	(194)	(79)	(243)	(84)	(259)
Freedom arguments	0.04	0.16	0.14	0.20	0.04	0.09
	(10)	(158)	(59)	(189)	(32)	(204)
Social arguments	0.02	0.14	0.05	0.07	0.16	0.11
	(4)	(137)	(23)	(67)	(132)	(228)
Legal arguments	0.06	0.06	0.12	0.10	0.10	0.06
	(13)	(55)	(52)	(94)	(87)	(124)
Economic arguments	0.04	0.07	0.06	0.06	0.03	0.06
	(9)	(63)	(24)	(56)	(29)	(140)
Experience arguments	0.01	0.05	0.05	0.03	0.01	0.01
	(3)	(50)	(20)	(30)	(8)	(22)
	1	1	1	1	1	1

The numbers in the table above represent the ratio between the number of statements of a group and the total number of statements in a quarter

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

As regards Italian-speaking Switzerland, the biggest difference between P_{min} and P_{max} is caused by the reduction in the use of generic statements and the increase in the use of proper arguments. In the Jul-Sep 05 quarter the generic statements' index is 0.72 and drops to less than a half (0.32) in Jan-Mar 06. Indexes of argumentative frames increase with the main frames being health arguments (0.20), freedom arguments (0.16) and social arguments (0.14). The legal arguments group remains the same between P_{min} and P_{max}, 0.6, while the economic arguments group and experience arguments group rise from 0.4 to 0.7 and from 0.1 to 0.5 respectively .

In French-speaking Switzerland there is also a drop in the use of generic statements, from 0.40 to 0.30, but it is not as significant as the one registered in Ticino. This does in any case highlight the same tendency to change the framing towards a more argumentative approach. The biggest change in French-speaking Switzerland is the increased use of two main frames: health and freedom. The former increased from 0.18 to 0.25 and the latter from 0.14 to 0.20. The other frames tend to decrease with the sole exception of the social frame which rises from 0.05 to 0.07.

In German-speaking Switzerland the phenomenon common to the other two linguistic regions is not encountered. Indeed, generic statements drop from 0.56 to 0.55, almost no variation. But the argumentative frames follow the same trend as French-speaking Switzerland, with a clear focus on health and freedom.

Based on this hypothesis it is time to investigate the structure of the debates in the three linguistic regions. It is interesting to look at the variability of the arguments used, the subjects involved and the approaches adopted. Health arguments rise from 0.10 to 0.12, freedom arguments rise from 0.04 to 0.09 while the other arguments all decrease. There is a single exception to this general trend: economic arguments rise from 0.03 to 0.06.

The graphs below show the presence of the interest groups' representatives in the three linguistic regions.

Graph 3.12 Presence of interest groups in Ticino newspapers' coverage between October 2004 and May 2007
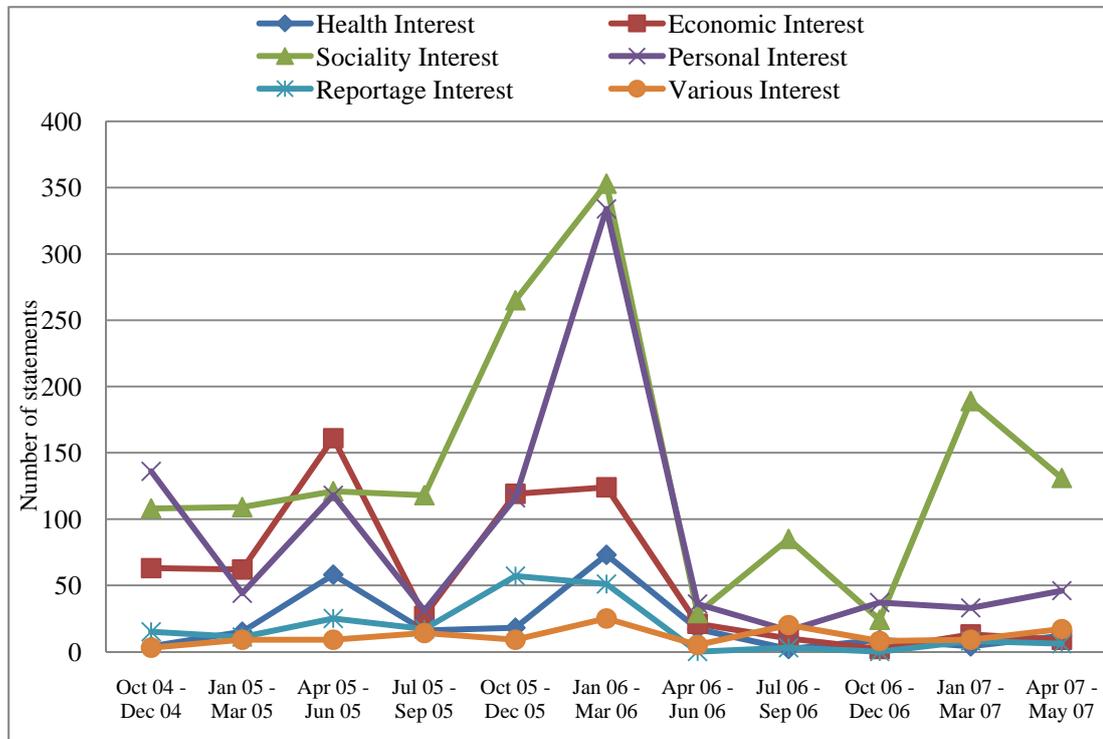
Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

In Ticino the most widely represented group is the sociality interests one. Its presence is significant in the period from July 2005 to March 2006. During that period these voices grow constantly until they peak in January March 2006, in correspondence with the peak of the personal interests group which grows rapidly between January and March 2006, demonstrating that newspapers gave more space to the public to express their opinion right before the referendum. The economic interests representatives are present for one and a half years, from October 2004 to March 2006. In the same period there are other voices but they are less frequently represented: the reportage interests group, various interests group and health interests group who all have a similar, albeit low, trend. The health interests' group has a maximum peak of around 50 statements per quarter. After March 2006 only the sociality interests group and personal interests group remain but less frequently than before. Understanding the situation of the smoking ban in Ticino can help in the analysis of this graph and can also provide some guidelines for the reading of the other graphs. The most intense period in the debate on the smoking ban in the media in Ticino is between October 2005 and March 2006. In that period the presence of all the groups increases. The peak of the sociality interests group refers to the main steps in the law-making process. In October 2005 in Parliament the politicians decide on a smoking

ban law, someone then disagrees and there is a popular vote in March 2006. This is the reason why the personal interests group is very high. The fact that the health interests group is not present in this situation maybe means that knowledge about harmful effects of tobacco is good and it is now more a political question affecting the owners of public places and obviously their clients.

Graph 3.13 Presence of the different interest groups in French Swiss newspapers' coverage between October 2004 and May 2007
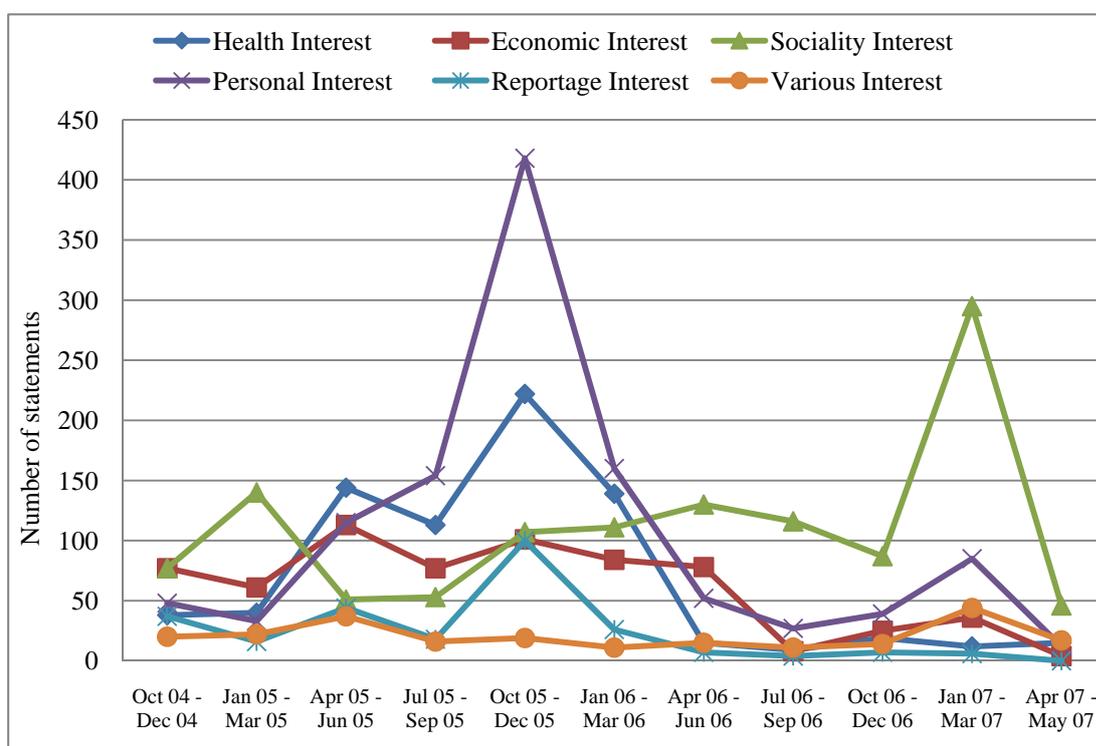
Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

the French Swiss trends are more complicated than the Italian Swiss ones. The peak regards the personal interests group and is recorded in the October - December 2005 quarter. After that the personal interests line continues to decrease steadily, with the sole exception of January - March 2007. In that quarter also the other lines record a small peak. Of these groups the sociality interests' line has its main peak, around 300 statements, and is the second main peak of the graph. All the other lines have different trends. However, the trend of the health group - high for more than the first half of the observation period and then gradually disappearing - appears significant. The economic interests group is present from the beginning until April 2006 and then seems to disappear too. Generally speaking, during the last year only two groups are present:

sociality interests, with a very high frequency, and personal interests, high only in the last two quarters. The others count fewer than 50 statements per quarter. The strongest period in French Swiss newspapers' coverage of the smoking ban is between July 2005 and December 2005. It is in this period that the personal interests group has the highest peak. This may be due to the fact that some popular movements in this period begin to speak out for or against the smoking ban. It is still only a popular topic which would interest parliament and politicians only a few months later, between January and March 2007.

Graph 3.14 Presence of the different interest groups in German Swiss newspapers' coverage between October 2004 and May 2007
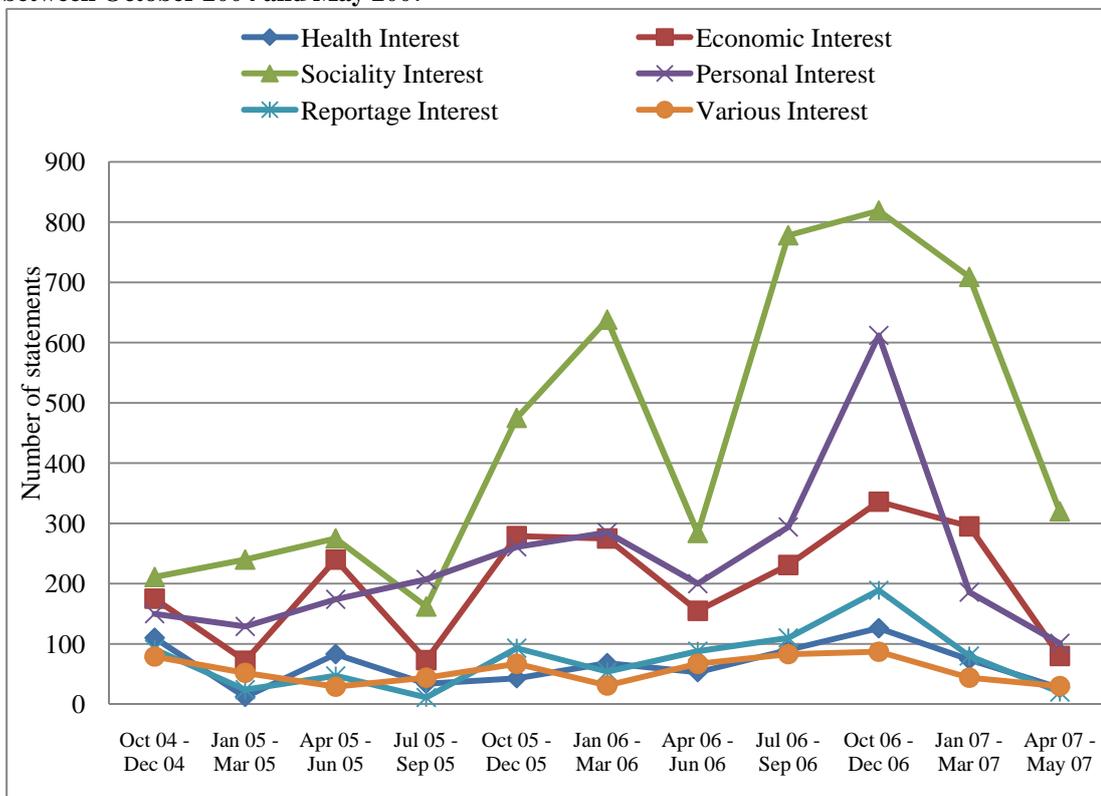
Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

Three groups are most highly represented in the German Swiss newspapers while the other three remain lower and parallel: reportage interests, various interests and health interests. However there are no significant peaks to comment except for one that corresponds to the peaks of all the other groups between October 2006 and December 2006. In the graph there are two interesting peaks for the sociality interests group. The first is between January 2006 and March 2006, with the definition of the smoking ban in

Ticino. The second is in October 2006 and December 2006, corresponding to the highest peak of the personal interests group. This may be an index of a popular movement for a smoking ban related to a political decision or debate in parliament.

Generally speaking, it is curious that the health interests group is the one with the lowest frequency throughout Switzerland. But the assumption made for Ticino can be generalized: smoking is clearly a health issue which has now become a political issue. Knowledge of the harmful effects of tobacco is so embedded that it is less important to discuss this aspect because it is already the strong basis for a political decision.

The following table sums up the findings of the three graphs above. It focuses on the most intense period of the debate for each linguistic region as already shown for the group of arguments (table 3.19).

Table 3.20 Comparison of the peaks and troughs of the three linguistic regions

	Italian CH		French CH		German CH	
	P_{min}	P_{max}	P_{min}	P_{max}	P_{min}	P_{max}
	Jul-Sep 05	Jan-Mar 06	Jul-Sep 05	Oct-Dec 05	Apr-Jul 06	Oct-Dec 06
	(n=223)	(n= 960)	(n= 431)	(n= 967)	(n= 847)	(n= 2169)
Health Interests	0.07	0.08	0.26	0.23	0.05	0.06
Economic Interests	0.12	0.13	0.18	0.10	0.18	0.15
Sociality Interests	0.53	0.37	0.12	0.11	0.34	0.38
Personal Interests	0.14	0.35	0.36	0.43	0.24	0.28
Reportage Interests	0.08	0.05	0.04	0.10	0.10	0.09
Various Interests	0.06	0.03	0.04	0.02	0.08	0.04
	1	1	1	1	1	1

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

The tables and graphs above provide information about the presence of the players in the debate. The biggest change between the lowest and highest point of the main peak in Ticino is the presence of the personal interests representatives. During the July - September 2005 quarter the main players were sociality interests representatives. In the following quarter the space in newspapers is almost equally distributed between the people and the politicians as already shown in the previous graphs. In the German Swiss newspapers there is no big change in the distribution of space in the media among players while in French Swiss ones there are some differences, even although not as

evident as in Ticino. Economic interests representatives are less present at the highest point of the peak while there is an increase in the space given to personal interests representatives.

The results of this analysis are summarized in the conclusions. In the next section I will make a more detailed analysis of a single arguments' group.

3.7 Case study: economic arguments

It is possible to provide a more detailed picture of the smoking ban debate in Switzerland than the one drawn so far even although the level of analysis reached fulfils the goal originally set for the research. However, some arguments are particularly interesting because they have an anomalous trend. In particular, the economic arguments group has anomalous characteristics: it is pervasive until the decision is taken in Ticino and then seems to suddenly vanish. It then reappears for six months and in the last quarter of the observation period it vanishes as rapidly as it did the April-June 2006 quarter (graph 3.15).

Graph 3.15 Presence of the economic arguments group in Swiss newspapers' coverage between October 2004 and May 2007

Economic arguments

Number of statements

| | Oct 04 - Dec 04 | Jan 05 - Mar 05 | Apr 05 - Jun 05 | Jul 05 - Sep 05 | Oct 05 - Dec 05 | Jan 06 - Mar 06 | Apr 06 - Jun 06 | Jul 06 - Sep 06 | Oct 06 - Dec 06 | Jan 07 - Mar 07 | Apr 07 - May 07 |
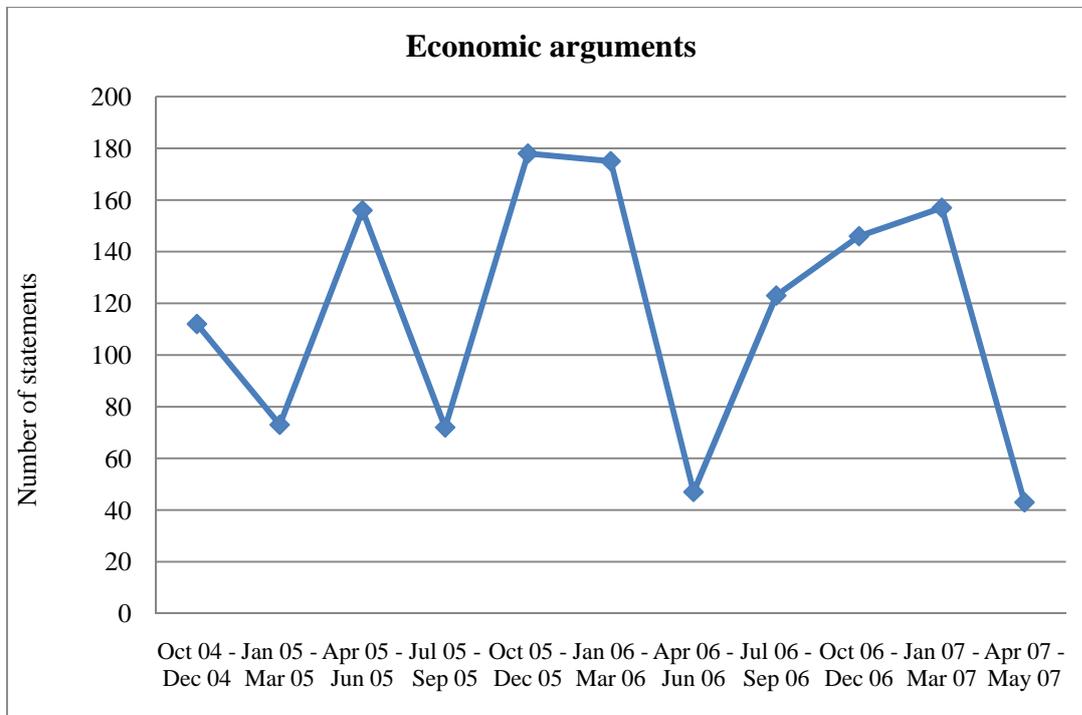
Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

The economic arguments group puts forward four arguments, two in favor of the ban and two against it. However, we have seen above that some economic arguments are discussed and counter-attacked within their own group. For this reason it is important to study the trend of the two lines separately: statements against the ban and statements for the ban.

Graph 3.16 Presence of the economic arguments group in Swiss newspapers' coverage between October 2004 and May 2007 by tendency
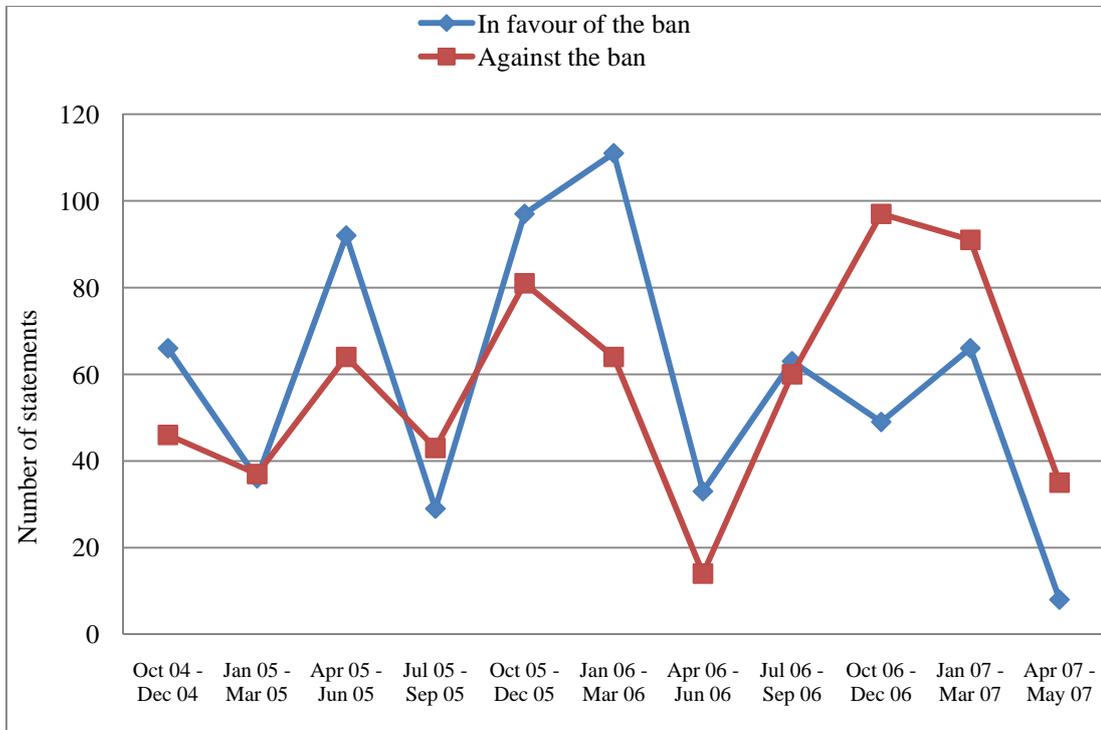
*Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano*

Graph 3.16 provides new information about the economic arguments group: at the two main peaks in graph 3.15 it follows different trends. The first peak was between October 2005 and March 2006. The graph above clearly shows that the dominant tendency in the economic statements of that period was in favor of the ban while the situation is the complete opposite at the other peak (October 2006 - March 2007) with the prevailing tendency being against the ban. To understand the reasons underlying this difference it may be useful to differentiate the presence of the economic arguments' group in the three Swiss linguistic regions with the aim of clarifying the hypothesis behind the change of tendency.

Between October 2004 and March 2006 economic arguments were widely present throughout Switzerland. Moreover, they seem to have the same trend in the three linguistic regions: a first peak in April-June 2005, a decrease in summer (perhaps due simply to newspapers' less productive period) and another peak between October 2005 and March 2006. A sudden decrease follows in April-June 2006 and after that French

and Italian Swiss newspapers no longer cover economic arguments. In Italian Swiss newspapers there is another peak in January-March 2007. On the contrary, German Swiss newspapers record the highest peak in October-December 2006, when the others are almost silent.

Graph 3.17   Presence of the economic arguments group in the three linguistic regions of Switzerland in newspapers' coverage between October 2004 and May 2007
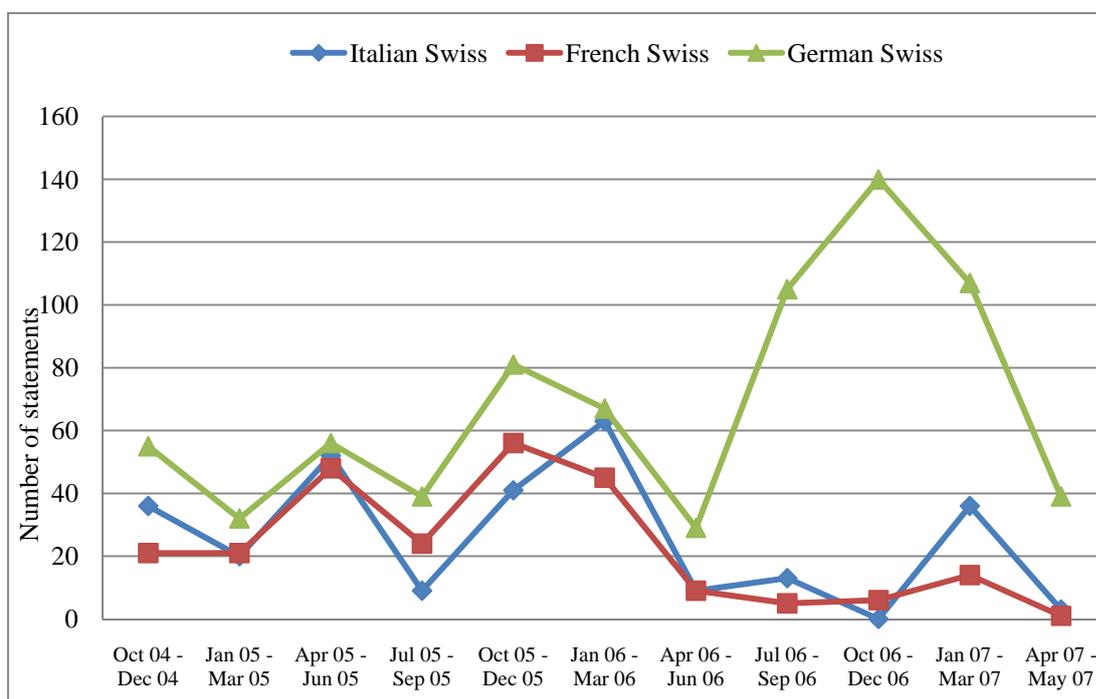
As mentioned above, the group of economic arguments comprises two arguments in favor of the ban and two against it. The arguments in favor of the ban are financial gains and financial benefits for the health system. The arguments against it are financial losses and high investment costs for places who want to adapt. The graph below shows the trends of these four arguments. Graph 3.18 shows the trend of each of the four arguments throughout Switzerland during the period between October 2004 and May 2007.

The first thing it shows is that the argument with the highest frequency is *Financial losses*. It is so frequently represented in newspapers' coverage that it almost alone determines the trend of the more general line of the economic arguments group. There is another argument in the discussion with a more or less parallel trend but with half the number of statements: it is the opposite argument *financial gains*.

The other two remaining arguments are lower in frequency but are also interesting because they have a completely different trend. This is the case of *financial benefits for health system* and *high investments' costs for places that want to adapt.* The first argument has two peaks in the first year and a half and then constantly decreases and seems to disappear for more than a year, with the highest peak in frequency of around 5 statements. Instead, the second argument has the highest peak at the end of the observation period.

Graph 3.18 Trend of the arguments of the economic arguments group in Swiss newspapers' coverage between October 2004 and May 2006
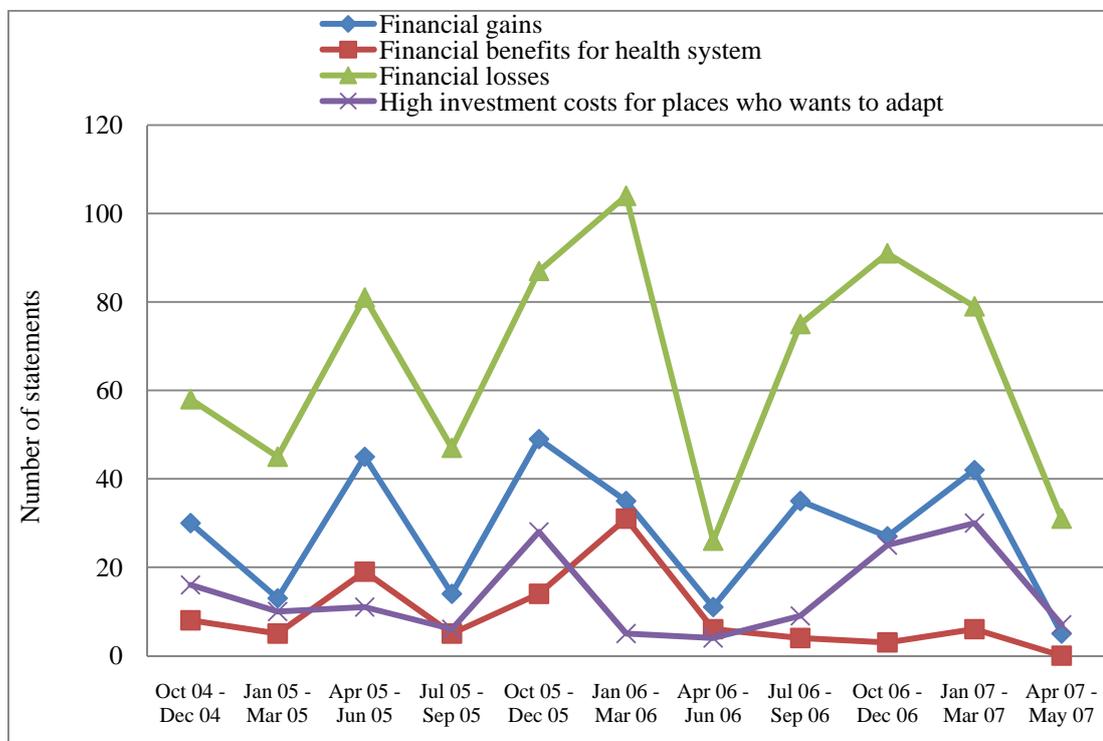
Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

Besides the frequency of these arguments it is also important to look at the way they have been used. The fact that an argument can be used in its tendency or can be counter-attacked tells us a great deal about the most controversial topics of the debate.

Four histograms were created to analyze the controversial use of the economic arguments graphs, but only one argument remained controversial, from the side against the ban: *financial losses.* The other three were constantly used with their original tendency (Appendix 3, Graphs 4-6). The graph below shows the use of the *financial*

losses argument. This argument was hotly debated throughout the entire observation period. During the first year it was used both in favor and against the ban with a proportional trend. A strange phenomenon can then be seen between October 2005 and March 2006. The column in favor of the ban rises in the October – December 2005 quarter and appears to reach the same level as the column against the ban. Then, in the second quarter (January-March 2006), it actually surpasses the cyclamen-colored column.

This phenomenon is not repeated at the second peak of the economic arguments trend. During this period the column of the *financial losses* statements used against the ban continues to grow and is much higher than the column of statements used in favor of the ban. From this we can conclude that the financial losses argument is debated and counter-attacked, meaning that it is controversial, for the first two years and is then no longer attacked during last nine months of the observation period.

Graph 3.19 *Financial losses* **argument in Swiss newspapers' coverage by tendency between October 2004 and May 2006**
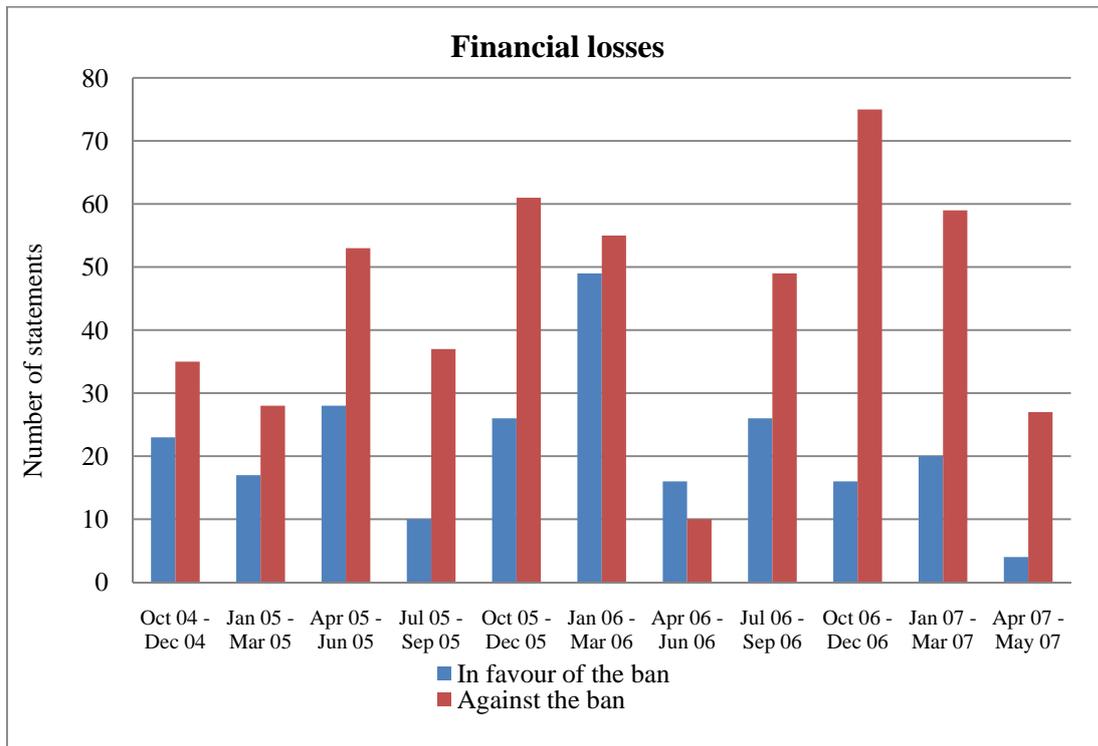
Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

The graphs above consider the arguments within a global Swiss context. However, as already seen on previous pages, analysis by linguistic region can tell us more about the arguments and their meaning within the context of the debate.

Table 3.20 observes the financial losses argument in the three linguistic regions. It is used widely in Italian Swiss newspapers until March 2006 and then disappears. It has a similar trend also in French Swiss newspapers, even if it appears again in the January-March 2007 quarter. Instead, the German Swiss newspapers show a different trend: it is used above all during the peak of July 2006 – March 2007.

Table 3.21 *Financial losses* **argument trend in the three Swiss linguistic regions newspapers' coverage between October 2004 and May 2007**

	Italian Swiss % (n=144)	French Swiss % (n=142)	German Swiss % (n=438)	Swiss % (n=693)
Oct 04 – Dec 04	13	6	7	7
Jan 05 – Mar 05	10	11	4	7
Apr 05 – Jun 05	**26**	11	5	10
Jul 05 - Sep 05	4	13	5	6
Oct 05 -Dec 05	**17**	**17**	9	**12**
Jan 06 – Mar 06	**22**	**22**	10	**14**
Apr 06 – Jun 06	2	3	4	4
Jul 06 - Sep 06	3	4	**15**	**11**
Oct 06 – Dec 06		4	**20**	**13**
Jan 07 – Mar 07	1	9	**15**	**11**
Apr 07 – May 07	2	1	6	4
	100	100	100	100

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

The results of the financial gains argument trend are different. Generally speaking, this argument is less frequent than the others, and is used differently in the three linguistic regions. In Italian Swiss newspapers it was used only in April - June 2005 (13%), January - March 2006 (14%) and above all in January - March 2007 (40%), just before the definitive application of the ban. This means that during the debate the financial losses argument was only counter-attacked by the side in favour of the ban but, as the referendum approaches, a new contrasting economic argument is created: financial gains. These arguments gain strength until the definitive application of the law due to the fact that during the transition year many public places adopted the ban. The side in favour of the ban took that as a sign of a definitive negation of the financial losses argument and so asserted the idea of financial gains.

In French Swiss and Germans Swiss newspapers the trend is fairly similar to that of financial losses. The dynamics of Ticino don't appear to influence the other regions in this respect.

Table3.22 *Financial gains* argument trend in the three Swiss linguistic regions newspapers' coverage between October 2004 and May 2007

	Italian Swiss % (n=61)	French Swiss % (n=46)	German Swiss % (n=175)	Swiss % (n=282)
Oct 04 - Dec 04	9	**17**	7	9
Jan 05 - Mar 05	5	7	4	4
Apr 05 - Jun 05	13	**17**	14	**13**
Jul 05 - Sep 05	2	7	5	4
Oct 05 -Dec 05	9	**28**	16	**15**
Jan 06 - Mar 06	14	**20**	8	11
Apr 06 - Jun 06	2	2	5	4
Jul 06 - Sep 06	4		**18**	12
Oct 06 - Dec 06			**15**	10
Jan 07 - Mar 07	**40**	2	4	**15**
Apr 07 - May 07			3	2
	100	100	100	100

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

Another question that has to be answered if we are to correctly analyze the economic arguments group is who used them. For this reason the following two tables indicate the players as well as the economic arguments used.

Table 3.22 shows that it is the economic interests group that uses economic arguments the most. That is quite natural but there is an exception: the financial benefits argument which was used most by the sociality interests group, personal interests group and health interests group. On the contrary, the financial benefits argument is the least used by the economic interests group.

Table 3.23 Relationship between the economic arguments and the players who used them

Interests Group	Financial losses % (n=724)	Financial gains % (n=306)	High investments' costs % (n=151)	Financial benefits % (n=101)
Sociality Interests	10	22	9	**24**
Personal Interests	22	18	9	**34**
Economic Interests	**52**	**33**	**68**	5
Health Interests	5	11	1	**22**
Reportage Interests	7	12	13	13
Various Interests	4	4	1	3
	100	100	100	100

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

By dividing the arguments by tendency (Table 3.23) it is easier to understand how the players used the economic arguments. As already seen in graph 3.19, the financial losses argument was the most intensely debated. It was used both in favour and against the ban, mostly by the economic interests group. The financial benefits and financial gains argument in favour of the ban are not debated at all except when the economic interests group try to attack the argument twice.

Table 3.24 Relationship between the economic arguments by tendency and the players who used them

	Financial losses		Financial gains		High investments' costs		Financial benefits	
	Favor (n=235)	Against (n=489)	Favor (n=298)	Against (n=8)	Favor (n=22)	Against (n=129)	Favor (n=95)	Against (n=6)
Heath Interests	11	2	12		5		23	
Economic Interests	37	60	32	75	28	76	3	33
Sociality Interests	10	10	22	13		11	25	
Personal Interests	26	20	18	13	32	5	33	50
Reportage Interests	12	4	12		41	8	13	27
Various Interests	4	5	4		5		3	
	100	100	100	100	100	100	100	100

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

3.8 Conclusions

To sum up, it is important to mention some points, hypotheses and findings. This section highlights seven main points resulting from the analysis presented in this chapter.

The idea behind the DIFU project was to identify and describe the debate in the print media. First of all it was necessary to demonstrate that there was indeed a debate as this was the necessary assumption for any further discussion. Interpretation of the data resulting from content analysis proves that there certainly was a debate on the smoking ban in Swiss newspapers and not only in the Italian Swiss print media - due to the ongoing political debate - but throughout the Swiss media. The debate is present to some degree or another in the media throughout the three year observation period and it is possible to identify different peaks in its trend. There are principally three recognizable peaks and each corresponds to one of the three Swiss linguistic regions.

The fact that the smoking ban is widely discussed in the Swiss media leads to a preliminary reflection on the events of Italian-speaking Switzerland. Ticino is the first Swiss canton to take into consideration the possibility of creating a law. The observation period of the content analysis is closely related to the specific history of the Ticino smoking ban as all the main steps in the creation and application of a total ban in public spaces in Ticino were taken during this three year period. However, further analysis disproved this first impression. Even although the smoking ban in Ticino is important for the discussion throughout Switzerland, each linguistic region talks about its own problems rather than about the situation in Ticino. French and German Swiss newspapers did not simply trace the history of the smoking ban in their columns. The conclusion that can therefore be drawn is that Ticino is not just an isolated canton applying a new measure against tobacco smoking; it holds a ground-breaking role. After all, Ticino is following a common trend in Europe.

The smoking ban was presented in the newspapers as a debate and not merely as a chronicle of events. For this reason, understanding the argumentative aspect of the articles is particularly important. If we look at the codebook, prepared on the basis of a preliminary reading of a sample of articles, we can see that there are many potential arguments for and against the ban. Nevertheless the actual arguments used were few. Each argument defined by the codebook was recognizable in more or less high number of statements but there was a marked difference in frequency. The most commonly used concern some critical points of the smoking ban topic already used in different parts of the world (Menashe and Siegel, 1998) while others are barely used at all. The real arguments regard health, freedom and economy even if, once again, they are used in different ways during the period of study.

In a normal debate arguments are often counter-attacked. Our analysis enabled us to recognize these attacks. We recorded if the arguments were assessed or counter attacked. The most important result of this observation is that only the arguments made by the side against the ban were systematically attacked during the crucial part of the debate. This first of all underscores the core of the debate where the arguments were more animated. It also shows that the arguments of the side in favor of the ban were too strong to be attacked.

While each linguistic region registers different peaks there is also a peak that is common to all the regions. There is a precise moment, after the shared peak of the three linguistic regions, in which there is a shift in the framing of the smoking ban: from an argumentative perspective to a more anectodical one. This result is the most interesting in terms of framing analysis and of the history of tobacco traced in the first chapter. The

reason for this change is the social fact established in Ticino. Following popular acceptance of the new law, the smoking ban becomes part of the social reality and as a result of this it is again collectively accepted. This fact also affects the other linguistic regions and is the most important consequence of Ticino's ground-breaking role.

Considering that the topic of the ban was smoking, we assumed that the most important players in the debate would be doctors. However, in the period subject to content analysis the result is different to what was expected. The main players represented in the media were politicians who belong to the sociality interests group, demonstrating that the issue had shifted from exclusively health related to health policy related, the new frame of the twenty-first century in Europe. Politicians mostly used health arguments, connecting them to the previous scenario dominated by medical experts, and this confirms the fact that the public perceives the topic as a question of health policy.

The case study on economic arguments confirms that the media in this case loyally follow what happens in reality, at least as regards the smoking ban in this precise period of Swiss newspapers. Indeed, in Ticino's reality financial losses was initially almost the only economical argument which was strongly attacked. After the referendum things began to change because the population experienced the reality of the application of a smoking ban in some public places. This gave rise to a new argument: financial gains, which was more than a simple attack on the financial losses argument. In this way the debate in the media reflects what happened in reality.

Chapter 4. Argumentative analysis of the smoking ban debate

Introduction

The distinction between qualitative and quantitative methods is not always easy to explain and the risk is that of generalizing them. This distinction between the two triggered a fully-fledged debate; Nilsen (The Sage Handbook of Social Research Methods 2008, p 82) writes that the debate on the quantitative-qualitative divide was the most important in the field of research methods in the history of social sciences. The characteristic dimensions that differentiate the two research methods are the techniques used to collect and analyze the data but the debate escalated to incorporate methodological and epistemological aspects and changed over time; from a 'case studies vs. statistical methods' distinction to more sophisticated questions: however, nowadays discussions on quantitative/qualitative methods and data are aimed at bridging the gap (The Sage Handbook of Social Research Methods 2008, p 82)[3].

Most research studies are neither purely qualitative nor quantitative but a combination of the two[4]. Patton (2002, p 248-257) distinguishes four main types of combined analyses that fall between the two extremes: *Pure hypothetical-deductive approach to evaluation: experimental design, quantitative data and statistical analysis* vs *Pure qualitative strategy: naturalistic inquiry, qualitative data, and content analysis*. He defines the following combined types of analysis:

- Experimental design, qualitative data, and content analysis;
- Experimental design, qualitative data, and statistical analysis;
- Naturalistic inquiry, qualitative data, and statistical analysis;
- Naturalistic inquiry, quantitative data, and statistical analysis.

Another aspect involved in the description of the methods should be considered: the objects studied, which can be either qualitative or quantitative, and for this purpose Bernard (2000, p 21) designed and commented table 4.1.

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[3] "Current discussions about the quantitative-qualitative issue are more open to bridging the divide where data and methods are concerned"

[4] "Qualitative findings may be presented alone or in combination with quantitative data. Research and evaluation studies employing multiple methods, including combinations of qualitative and quantitative data, are common. At the simplest level, a questionnaire or interview that asks both fixed-choice (closed) questions and open-ended questions is an example of how quantitative measurement and qualitative inquiry are often combined" (Patton 2001)

Table 4.1 Qualitative/Quantitative Data Analysis

Analysis	DATA Qualitative	Quantitative
Qualitative	A	B
Quantitative	C	D

Source: Bernard (2000)

Qualitative analysis of qualitative data such as studies of texts through interviews or transcriptions in order to categorize and name things in the texts are entered in cell A. Cell D is used for the quantitative analysis of quantitative data. The most obvious example of quantitative analyses are statistical studies, where by quantitative we mean numbers and measurements. Much data on human behavior and social activities is already numerical (age, hours of television per day, height, weight etc.). Studies entered in cell B refer to qualitative analysis of quantitative data such as the use of visualization methods to identify patterns, multidimensional scaling and hierarchical clustering. This cell also refers to the study and presentation of meaning as the result of data processing. This process takes place after that of cell D, otherwise it would remain empty. The final cell, C, is used for quantitative analysis of qualitative data. These studies have one fundamental step in common, i.e. operationalization of qualitative data in quantitative data, such as the translation of words into numbers.

This simple distinction underlines four main categories of research in social sciences. What every kind of research has in common is the ultimate goal of *analysis*, which means searching for patterns in data and explanations of these patterns (Bernard 2000). Based on this assumption Bernard continues his observation of different kinds of research methods commenting "the way I see it, analysis is ultimately all qualitative. It starts before you collect data – you have to have some ideas about what you're going to study – and it continues throughout the research effort." In practice, classifying the approaches as qualitative or quantitative is fairly complex and researchers take different stances on it: social scientists with a humanistic and phenomenological background tend to see quantification as inappropriate. Sociologists with a positivist background point out that numbers cannot guarantee the scientific nature of a study (Bernard 2000, p 418). But, as Patton observes, sometimes this schematic opposition leads to a declaration of greater objectivity of one or the other approach. To claim that the quantitative approach is more objective than the qualitative one would be a mistake because quantitative

methods will never be synonymous with objectivity. Likewise, qualitative methods will never be synonymous with subjectivity[5].

Defining qualitative methods as subjective is a grave allegation because science has the purpose of being objective. As Mulaik points out (Kaplan 2004, p 425), being objective is a core concept of science. The term objective derives from "object"; it is an adjective formed by the noun "object" with the suffix "ive", and science studies objects. This adjective is often used in opposition to the term subjective, which has the same construction but with the noun "subject". Subjective then means pertaining to the subject and from this point of view subject stands for observer. Subject and object are used in dialectical opposition and since objective deals directly with the object it is like "real" knowledge, and independent of the observer's mind. On the other hand, subjective is the specific knowledge of the knower, the analyzer, and risks being a distortion, an illusion, because the knowledge is not based on the object studied but on the subject who is studying it: it is not external but internal knowledge. However, this reasoning is banal because it is clear that both external and internal knowledge derives from the intrinsic characteristics of the object itself. This last point is the only discriminating element in judging scientific knowledge of the object studied.

Kerlinger (2000) takes another approach to describing qualitative and quantitative research. He doesn't start by investigating the division between the two but talks specifically about qualitative research, explaining that it evolves to fill gaps in quantitative research. Kerlinger says that qualitative research increasingly became the focus of attention as researchers began to realize that not all studies can be quantified. Some things cannot be expressed in numbers because doing so could result in the loss of information. It is curious to see why diverging opinions arose between quantitative and qualitative if the latter cover different aspects to the former. Kerlinger continues his description by outlining the advantages of qualitative research over quantitative research "Qualitative research uses direct observation and semi structured interviewing in real-world settings. The researcher looks for social transactions and interactions between people and events. The data collection process is less structured than quantitative research. The researcher may make a number of adjustments during the observations. The researcher may even develop new hypotheses during the research process. Qualitative research is naturalistic, participatory, and interpretive" (p 589). He then lists

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[5] "Errors like this are too simple to be explicit. They are inferred confusions in the ideological foundations of research, its interpretations, its application…It is increasingly clear that the influence of ideology on methodology and of the latter on the training and behavior of researchers and on the identification and disbursement of support is staggeringly powerful. Ideology is to research what Marx suggested the economic factor was to politics and what Freud took sex to be for psychology" (Scriven 1972 from Patton 2001, p 574)

the characteristics of the two research areas in the following table borrowed from Heppner, Kivlingham and Wampold:

Table 4.2 Four differences between quantitative and qualitative research (Heppner, Kivlingham, &Wampold)

Quantitative	Qualitative
Emanates from post-positivistic tradition; major constituents are physical objects and processes	Emanates from phenomenological perspective; emphasizes internal, mental events as the basic unit of existence
Assumes knowledge comes from observations of the physical world	Knowledge is actively constructed and comes from examining the internal constructs of people
Investigator makes inferences based on direct observations or derivatives of the direct observations	Investigator relies on outside observational schemes and tries to keep intact the participants perspective
Goal is to describe cause and effect	Attempts to describe the ways that people assign meaning to behavior

Source: Kerlinger (2000)

But if we want to trace shortly the main characteristics of two ideal studies, where the first one is adopting a quantitative method and the second a qualitative method, we can distinguish the following seven major points:

Table 4.3 Differences between studies with quantitative and qualitative approach

Quantitative method	Qualitative method
1. Deductive (empirical angle)	1. Inductive (analytic induction)

2. Claim: If X then Y	2. Claim: 4 kinds (Jackson 1986)
	  ✓ proposed rules;
	  ✓ assertions about the properties of a class of events;
	  ✓ assertions about the differences between two classes of events;
	  ✓ assertions about the structure of a kind of interaction, and the like

3. The claim is offered at the beginning	3. The claim is offered at the end
4. Top down	4. Bottom up
5. Human response	5. Examples
6. Methods are fixed, standardized	6. Methods are relatively unfixed
7. Criteria: fixed, known, consensus among scientists	7. Criteria: much more looser

Source: "Quantitative and qualitative methods" course, University of Amsterdam, Prof. B. Meuffels

The first difference indicated in the table above is thus commented by Patton, "Inductive analysis contrasts with the hypothetical deductive approach of experimental designs that require the specification of main variables and the statement of specific research hypotheses *before* data collection begins. A specification of research hypotheses based on an explicit theoretical framework means that general constructs provide the framework for understanding specific observations or cases" (2001, p 56).

This is an overview of how the methods are applied. However, the main difference in the way these methods work on the object studied is described clearly in a table designed by Peter J. Schulz and which is particularly useful for this thesis. Schulz's table illustrates the process and results of qualitative and quantitative methodologies. Being a model, it does not correspond in full with reality due to the abstraction process, but the presentation of my results in this chapter is inspired by it as described in figure 4.1.

Figure 4.1 Qualitative and Quantitative method approaches
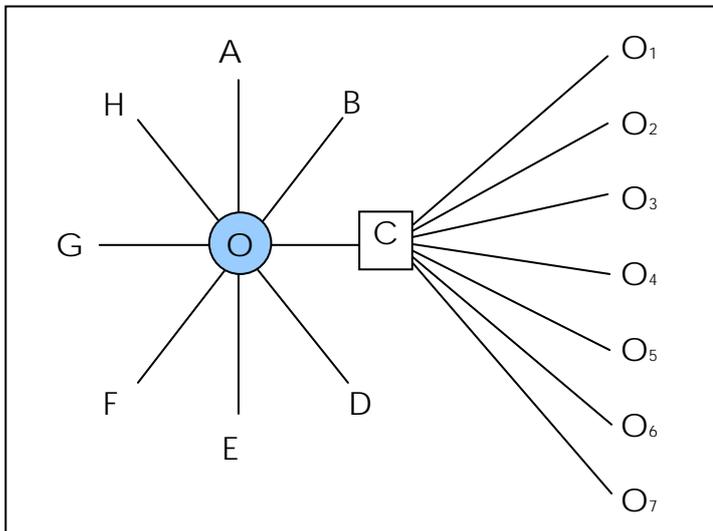
Source: "Research Methods", University of Italian Swiss, Peter J. Schulz

The blue circle with the letter O represents the object studied while the asterisk of letters represents the qualitative approach to analysis. In short, the qualitative approach takes an object and observes it closely. In the figure above, an object (O) is studied in relation to its different attributes/variables (rays A-H), this means that a qualitative research takes into account only one or a few objects and describes them in relation to the highest possible number of attributes. The opposite is true in the quantitative approach because, as the name suggests, it works with quantities. A quantitative method usually observes just one or a few variables for a large number of objects (as represented on the right of the figure). So, for example, a quantitative method only observes variable C in many objects of the same population (O_1-O_7).

The assumption of this dissertation is that the description of an object is more complete if we use both quantitative and qualitative methods. The first pages of this chapter illustrate what for a long time has been considered an incompatibility between two main methodological approaches in science but the time has come in the history of scientific methodologies to reach a reconciliation. In the section on this reconciliation between qualitative and quantitative methods Patton says, "Qualitative and quantitative data can be fruitfully combined to elucidate complementary aspects of the same phenomenon" (2001, p 558).

Van Gorp's approach to framing was presented in chapter I: he points out that the first step towards understanding framing is to identify and reconstruct the framing devices in

media content. He also says that the methods to use for this purpose are mainly discourse analysis and classical quantitative content analysis. Since the theoretical background of this thesis was the framing approach, it is useful to make use of all the possible methodologies that can help in the identification of the smoking ban frames.

The content analysis presented in chapter 3 is a typical example of a quantitative approach based on one main tool, the codebook, containing the categorization of a few variables used for the codification of the messages. These variables were collected and observed in a sample of more than three thousands articles. The aim of the content analysis was to describe the debate surrounding the smoking ban in Ticino as it was covered in Swiss newspapers. The question to answer was how the smoking ban was framed over a period of around three years. The resulting content analysis helps to describe the debate because it analyzes a large number of messages. However, like a structural feature of a quantitative study, the number of variables is limited and some aspects are difficult to describe. In particular, it is impossible to understand the relationship between contents. Indeed, as shown in the previous chapter, even although it is possible to count the single elements, such as arguments, and to compare their occurrences in texts it is impossible to find out if there is any kind of relation between them.

This chapter continues by considering figure 4.1 as the main distinction between the qualitative and quantitative approaches. A qualitative approach could describe the same object of the content analysis using more variables as will be attempted in section 4.4: that is, by considering the numerous variables studied using the qualitative approach and presenting the results through them. Application of a qualitative method to the objects studied in the DIFU content analysis can offer a more in depth description of a single object because it will observe details and connections in the text[6]. Indeed, as already mentioned, in quantitative content analysis, aimed above all at quantities, no connections are drawn between the single texts.

After presenting the results obtained from qualitative analysis, it will not be possible to make a direct comparison between the qualitative and quantitative approach, not because the qualitative sample is a sub-sample of the quantitative one but because, even if they were applied to the same sample, detailed analysis of some articles cannot be generalized to three thousand articles. However, I will answer the question: to what extent can a

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[6] "At the opposite end of the continuum from exploratory research is the use of qualitative methods to add depth and detail to completed studies that used quantitative data where the statistical results indicate global patterns generalizable across settings or populations. For example, when a large-scale survey has revealed certain marked and significant patterns of responses, it is often helpful to fill put the meaning of those patterns trough in-depth study using qualitative methods." (Patton 2001)

qualitative approach be integrated in a quantitative one? The answer to which is, from the point of view of this dissertation, a fundamental step towards designing the best method for describing my case study.

4.1 Argumentation theory as a conceptual tool for a qualitative method

In order to answer the last question in the section above I decided to apply a qualitative method to the objects studied in the DIFU content analysis. The methodological question I propose to answer in this and in the final chapter is the main aim of this dissertation together with that of describing the smoking ban debate. For this reason the content for the chosen qualitative method should be the same as that investigated using the quantitative method, in order to describe the debate. The codebook used to analyze the articles in the first stage envisages the statement as the unit of analysis. As already mentioned in the previous chapter, the content we wanted to collect and describe as fully as possible was the argumentative one. We organized the argument category in types and associated each statement collected with at least one type or one generic argument and a tendency, in favor or against the ban. We also coded the arguer, the geographical indication and the ban location, but the most expressive category, the one we were most interested in, was the argument type. It is now time to establish if a qualitative method can help describe the fundamental dimension of this investigation; i.e. the argumentative content. For this reason the qualitative method applied has to provide more insight on the argumentative part. The qualitative method will then come from the argumentation theory which will help to identify and overcome the limits of quantitative content analysis.

Based on the above, I chose an approach from the field of argumentation theory. The one I examined in order to organize the qualitative method used is the Pragmadialectics one of the University of Amsterdam (UvA). Their approach is the best suited to my study and highlights the limits of the content analysis in expressing argumentative content.

Argumentation is a complex human action which involves the use of reason. Like all the other reasoning processes, its validity can be established by applying some criteria. Argumentation has the aim of persuading and convincing the listener of the arguer's point of view. That highlights the fact that the listener is not detached from the discourse; on the contrary, he is deeply involved because he will decide the positive or negative outcome of the argumentation. In the case of the smoking ban debate, each arguer presents his position on the question and it is this that gives rise the debate because the different points of view create disagreement. The smoking ban is not a social

fact until it becomes reality with the enactment of a new law that regulates passive smoking. On the contrary, during discussion on the possibility of a smoking ban in Ticino the players argued with the aim of creating differences of opinion.

The roots of the argumentation theory can be traced back to Aristotle and it is now discussed by many scientists. For the Amsterdam School, internationally recognized as an important modern approach, a good definition of argumentation is "Argumentation is a verbal, social, and rational activity aimed at convincing a reasonable critic of the acceptability of a standpoint by putting forward a constellation of one or more propositions to justify the standpoint" (Van Eemeren, 2001).

For a long time argumentation was likened, in terms of its general objective, to formal logic and the debate on the differences between them is still ongoing. Formal logic is considered an important aspect by the School of Amsterdam but it is certainly not the only one: argumentation is more than that. Van Eemeren, Grootendorst and Henkemans (1996, p 12) identify four problem areas in the argumentation field: "unexpressed elements in argumentative discourse", "argumentation structures", "argumentation schemes" and "fallacies". Argumentation is commonly used in everyday life but the way it is used is often defective. For this reason Pragmadialectics aims to "develop the tools for determining to what extent an argumentation is in agreement with the norms for a reasonable discussion" (Van Eemeren, 2001). Argumentation theorists are interested in the *production, analysis* and *evaluation* of argumentative discourse (Van Eemeren, Grootendorst, Henkemans, 1996, p 12). As mentioned above, since argumentation is a use of reasoning, it is possible to find criteria to judge the validity of the action. That is why the argumentation theory also has a normative dimension, which is eloquently developed by Pragmadialectics. But it is essential to remember that "it also has a descriptive dimension, for the technical notions that are employed in argumentation theory are closely related to the way argumentative discourse is conducted in argumentative reality and to the practical problems that may occur" (Van Eemeren, 2001).

These two aspects of the argumentation theory, normative and descriptive, are interrelated but the second is the more important for this thesis. I will use the pragmadialectical approach to reconstruct and then describe the argumentation of the articles collected on the smoking ban law. However, I won't exclude the normative dimension because "In the analysis of argumentative discourse the normative and descriptive dimensions were to be linked together by a methodical reconstruction of the actual discourse from the perspective of the projected ideal of critical discussion. Only then, the practical problems of argumentative discourse as revealed in the reconstruction

could be diagnosed and adequately tackled" (Van Eemeren & Houtlosser 2000). Bringing the two dimensions together entails conducting a full argumentation analysis.

The discourse on smoking has already been studied and reconstructed with this kind of argumentation analysis based on pragmadialectics. An example is an advertorial produced by the Reynolds' Tobacco company addressed to young people (Van Eemeren & Houtlosser 2000). In its discourse Reynolds is committed to advising young people not to smoke but accurate reconstruction of the argumentative text, both in its descriptive and normative dimensions, shows how the company moved strategically in order to fulfill that commitment together with an attempt to protect its interests.

Even if the normative dimension allows full analysis, thus bringing to light errors and manipulation, it is perhaps a marginal question in my thesis. I imagine that in future study of the match between content analysis and argumentation theory a part of the normative dimension, with its consequent evaluation, will not be included. The following sections present the application of Pragmadialectics as a conceptual tool for a qualitative method.

4.2 Sample of data for the qualitative analysis

Since the application of a qualitative method is structurally suited for a small quantity of objects, a sub sample of all the articles collected had to be chosen. Initial selection picked out the Italian Swiss newspapers because argumentation analysis is closely related to knowledge of the language and my mother tongue is Italian. Another reason was that this second analysis was an experimental approach to using a qualitative method such as argumentation analysis to broaden the content analysis and, since the debate on the smoking ban was covered by the Ticino newspapers right from the beginning of the article collection period, the Swiss Italian newspapers appear to be the best suited.

Based on this premise, articles with a marked argumentative slant compared to a more anecdotal nature were picked out from the entire Italian Swiss dataset of content analysis. The articles deriving from this second selection totaled 372; a random sample of about 10% were then defined with SPSS. The result is a sample of 39 articles that are representative of the whole. First of all, the articles come from all the Italian Swiss newspapers: 9 from Corriere del Ticino (8%), 14 from Giornale del Popolo (6%), 14 from La Regione (7%) and 2 from Il Caffè (4%). Secondly, their distribution over time is as follows: 3 articles for 2004 (from October to December), 16 articles for 2005, 14

articles for 2006 and 6 articles for 2007 (from January to May). As regards content type, there are 2 opinion articles, 10 letters to the editor and 27 information articles.

4.3 The analysis

This section describes the method used for the qualitative analysis based on the argumentation theory. The method is inspired by pragmadialectics and further reflection helps identify some elements of the method that can be generalized to a larger sample.

4.3.1 Steps of the analysis from the original pragmadialectics

The work started following the classic steps of the pragmadialectical model. It distinguishes four stages in the critical discussion: *confrontation*, *opening*, *argumentation* and *concluding* stage. These stages are identified between the lines of the text. The bone of contention, which is in the confrontation stage and identifies the main reason of the discussion, is discovered. The second step is to reconstruct the structure of the argumentation with the definition of the main standpoint, the arguments and their typologies; *multiple* arguments are distinguished from *single* arguments, *coordinative* arguments and *subordinate* arguments. From this reconstruction we obtain the so-called argumentative structure diagram with a text box at each node of the tree and arrows to indicate the kind of argument. Each argument is then analyzed: the unexpressed premises are reconstructed and the argument schemes behind each argument are identified. There are three types of argument schemes: *causal*, *analogical* and *symptomatic.*

After reconstructing the argumentative text an evaluation is made of the soundness of the argumentations. The fallacies in each article are identified and classified (Van Eemeren and Grootendorst, 2004), starting from the ten basic rules for critical discussion. Right from the start it was clear that it would be almost impossible to quantify the task of identifying fallacies in a future content analysis because fallacies are extremely context-dependent. However, for the sake of completeness of application of the argumentation theory approach I undertook this task in order to highlight the limits of content analysis expressiveness of argumentative content.

This first phase of the analysis is directly inherited from Pragmadialectics. The approach provides a normative and descriptive view of argumentation for critical discussion. It goes without saying that newspaper articles are not generally pure examples of critical discussions but they are representative of a debate and are thus an instrument for a more extensive critical discussion between the population and the political class: "In a political

debate, for instance, the argumentation may be addressed pro forma to the fellow politician involved in the discussion, whereas the real target group consists of listeners or television viewers whose votes are sought by the politician. A letter to the editor may well, of course, be aimed at other readers of the newspaper than solely at the author of the article that is at issue. In such cases there are, in fact, two antagonists: the official antagonist and the listeners or readers who are the real target group" (Van Eemeren and Grootendorst 2004, p 99). Despite this, not every article randomly selected was analyzable. Some problems were encountered and so rules for the exclusion/inclusion of articles had to be set.

4.3.2 Criteria for exclusion/inclusion of articles

The first problem to tackle was irony. In some cases irony can be considered as a way of arguing, but in some extreme cases the impossibility of reconstructing the argumentation has to be accepted because analysis of argumentation is all the more reliable the more it heeds the actual text. Although a certain degree of inference and interpretation are necessary in argumentative analysis "The analyst applies an interpretive strategy that can be seen as a normatively specialized version of applying the Gricean presumption of cooperativity in generating implicatures" (Van Eemeren et al. 1993, p. 49), like in any other analysis, the fact that I have to intervene in the text and manipulate it can be a risk. In some cases of irony there may be the risk of forcing the sentences in the direction of other typical arguments of the debate but in these cases the inference is too substantial to be reliable.

Another case of articles excluded from the final sample are those that expresses a clear standpoint but not an articulated argumentation. These cases should have been excluded during our initial selection of the sample from SPSS since generic arguments had already been distinguished from real arguments. Once again, these cases show a difference in the approach to the arguments of our content analysis and the solidity of the argumentation theory. It is a sort of litmus paper for the recognition of the argumentative framing in the articles.

4.3.3 Other aspects of the analysis

As explained above, the method used in this phase is *derived* from pragmadialectics. The expression *derived* is due to the fact that I added some new features to the analysis and used them for further description of the sample. From the outset of the argumentation analysis the main question was: what part of this analysis can be included in a new content analysis? After applying the conventional method, attention focused on the first

part, the argumentation structure. The reason for this choice derived from considerations about feasibility in a larger sample. Moreover, the aim of the original content analysis was to describe the argument used and not evaluate how it was used. For this reason reconstruction of the arguments, identification of the argument schemes and of fallacies were not crucial. The reasons for this will become clear later.

The section on the argumentative structure offers a clearer picture of how the arguments are used and, above all, the main standpoints with all their nuances. We started by identifying the implicit standpoint, that is, the tendency of the previous content analysis indicated at this stage as "I/we am/are against the smoking ban" and "I/we am/are in favor of the smoking ban". An example of the argumentative structure derived from an article is shown in the figure below.

The figure represents a complex argumentation structure, meaning that it is made up of many different argumentations indicated in the boxes and linked by arrows. More than one argument is put forward because the arguer wants to anticipate all possible objections to his point of view.
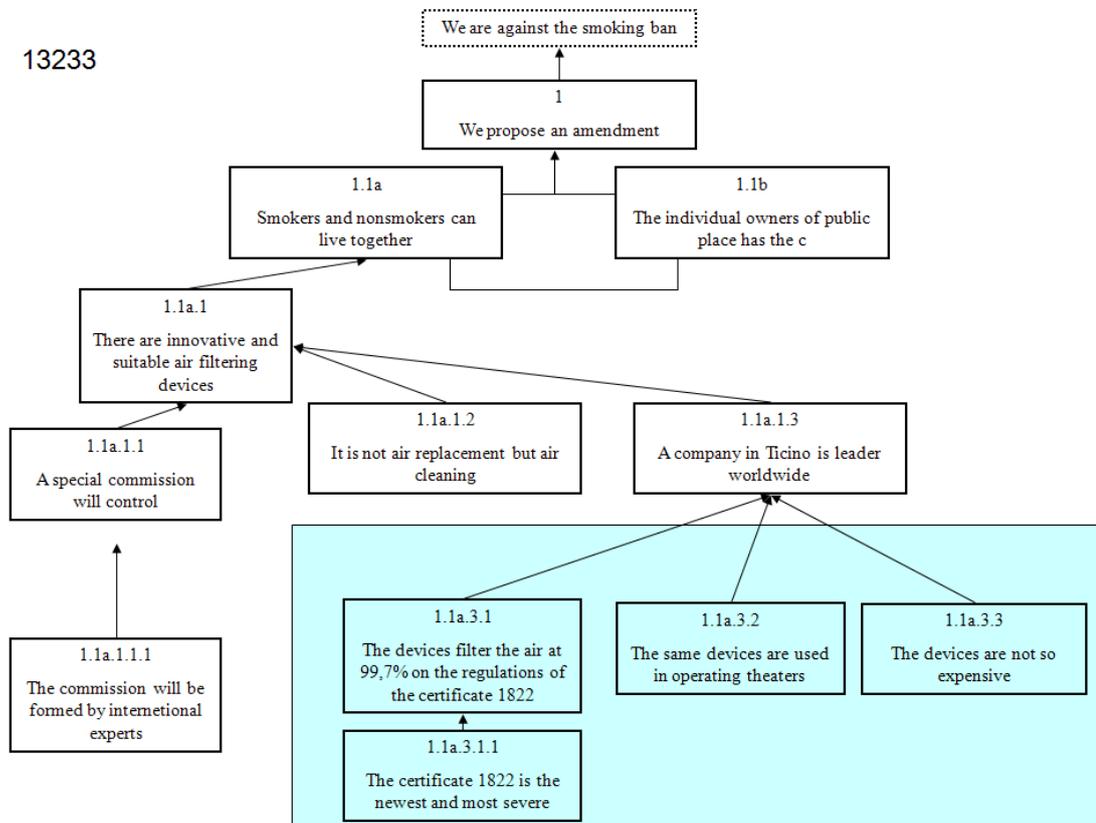
Figure 4.2 Argumentative structure of an article

Scheme 4.2 shows the fundamental steps in the application of the analytical procedure based on the argumentation theory to the article about the smoking ban and reconstructs the arguer's argumentative structure. First of all, the four stages of a critical discussion are indicated in the lines of the text. After that the bone of contention is identified, in the case above it concerned an amendment proposed by the Ticino association of bar owners. A more detailed reading of the article follows in order to identify the argumentative structure. Reconstruction of the arguer's argumentative structure consists of a schematic representation of the arguments used by the proponent of the discourse. If we look at argument 1.1a and 1.1b - example of *coordinative* argumentation - we can see that they form a single argument. Boxes 1.1a.1.1, 1.1a.1.2 and 1.1a.1.3 are a *multiple* argumentation. Together on the same level, but without any interconnection, they support box 1.1a.1. The final argumentation type, the *subordinative* one, is shown by the union of boxes 1.1a.1, 1.1a.1.1 and 1.1a.1.1.1, which are represented in this way (vertically connected) "to emphasize that a subordinative argumentation consists of a chain of arguments that are dependent on each other" (Van Eemeren, 2001).

After reconstructing the argumentative structure as in figure 4.2, a new phase begins in the qualitative analysis of the sample, necessary for the creation of generalizable variables that could be integrated in the quantitative content analysis. This phase is called *labeling*.

After the 39 articles of the sample had been analyzed using pragmadialectics, attention focused only on the resulting argumentative structures. Since the structures are different from each other because they are content dependent, meaning that they are made on the text of each single article, it became clear that a new way of representing them was needed. It was time to add a new step to the analysis, a new level of abstraction.

The labeling phase consists of defining semantic argument typologies based on the argumentative structures. Each article's argumentative structure was re-examined in order to distinguish and generalize new argument types based on semantic interpretation. I had to create a new coding mechanism from this new, more accurate identification of argumentation in the articles. Twenty-one labels without the distinction of tendency were found. That is to say, each label can be used both in favor and against the ban. The labels are the following with the number of occurrences in brackets: Freedom (16); Economical expenses (3); Experience (4); Nuisance (7); Health Benefits (12); Health Riskiness (18); Feasibility (14); Economical losses (5); Prohibitionism (3); Technical alternative (3); Functionality (3); Democracy/Majority (13); Trend (1); Example (5); Coherence (2); Legal protection (5); Legal alternative (4); Persuasion (3); Federal competence (5); Tolerance (2); Egoism (1).

Some of the resulting labels were similar to the argument typologies used for the quantitative content analysis and others were new. Even if the sample of 39 articles was representative, this labeling phase is in some ways limited by the fact that we had to work on a sample of just 10% of the Italian argumentative articles. It is therefore conceivable that we will have more labels at the end of a new analysis on the entire original sample.

From this point on the labels offer new generalization possibilities. The most interesting point is that they come from attentive analysis of each article, even if they seem to be very similar to the argument typologies of the content analysis.

The resulting scheme of an article after the new labeling phase is shown here:
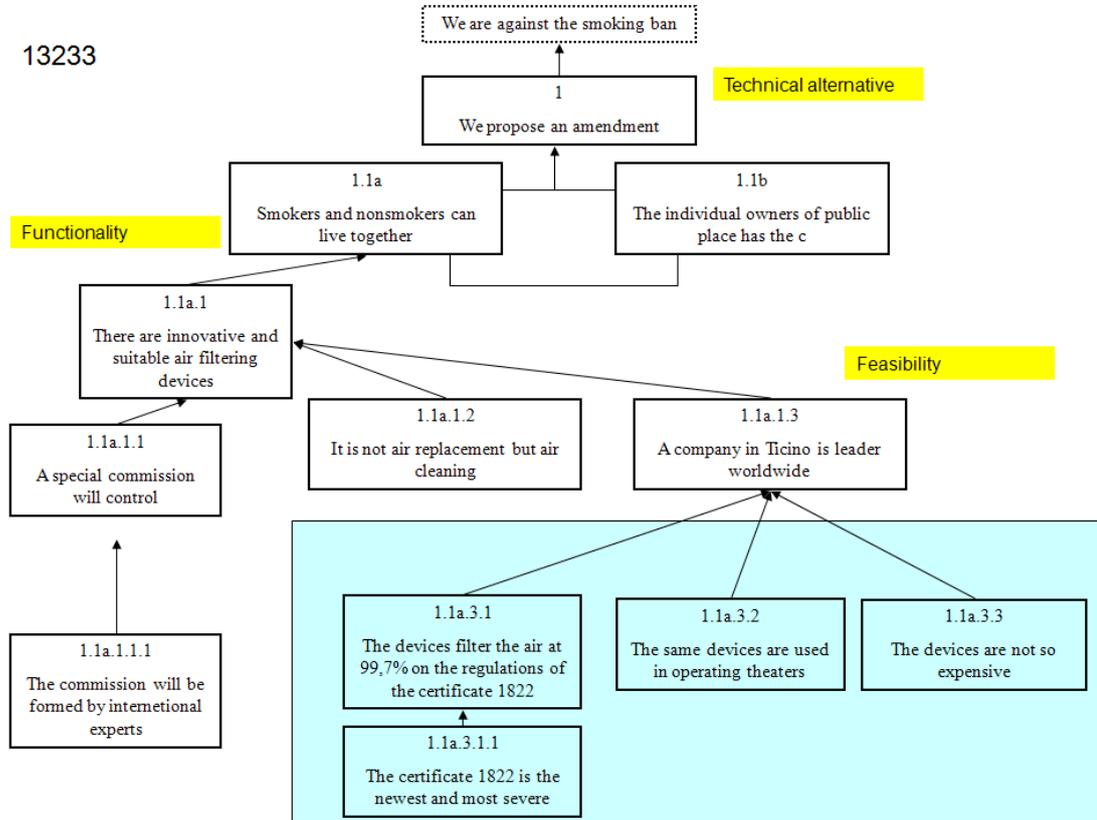
Figure 4.3 Labeling of an argumentative structure

As shown by scheme 4.3, there are three labels in the argumentative structure of article 13233: Technical alternative, Functionality and Feasibility. These are topic indicators and are semantically based. The Technical alternative is the first and, since it originated from the main standpoint (Box 1), it affects the entire argumentative structure. The structure then seems to divide into two parts; the first explains the functionality of the technical alternative and the second assesses the feasibility of the new solution.

The following flow chart shows another article analyzed using the qualitative model derived from pragmadialectics:
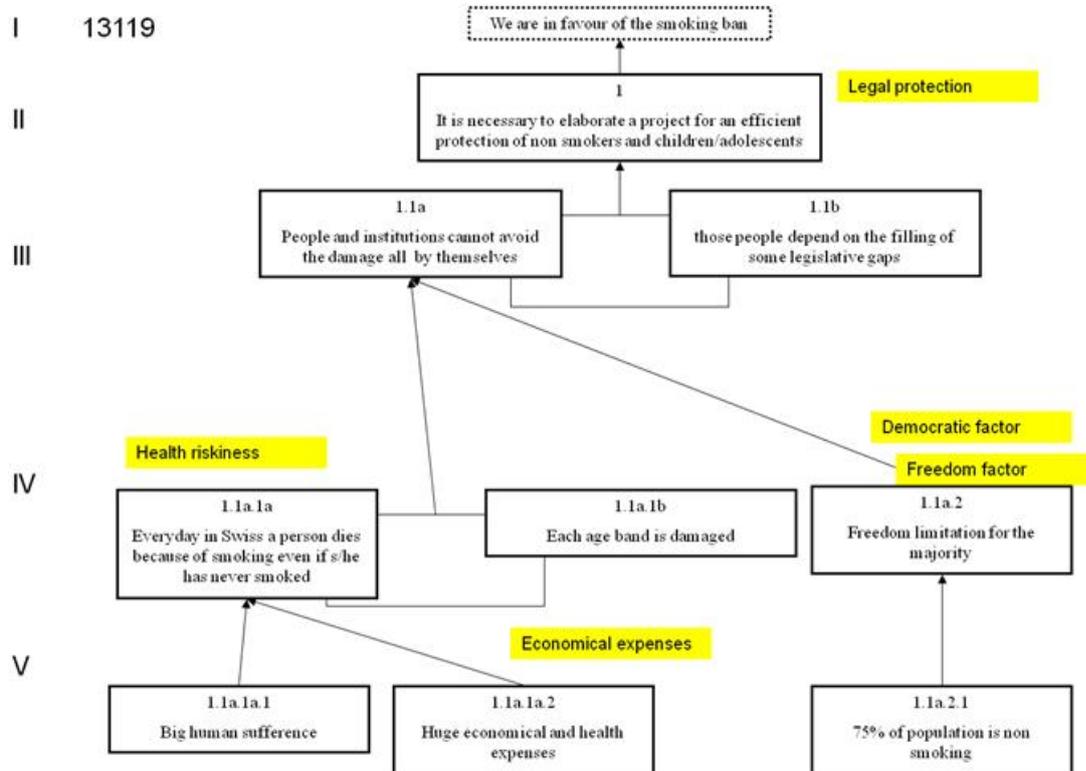
Figure 4.4 Argumentative structure and labeling of an article

The representation of article 13119 adds a new feature to the previous one. On the left the roman numerals indicate the levels of the structure. This numbering helps infer the transparency levels presented in the section illustrating the results (4.4). As we can see in the other article structure, there are once again different argumentation typologies and five labels are now highlighted: Legal protection, Health riskiness, Democratic factor, Freedom factor and Economical expenses.
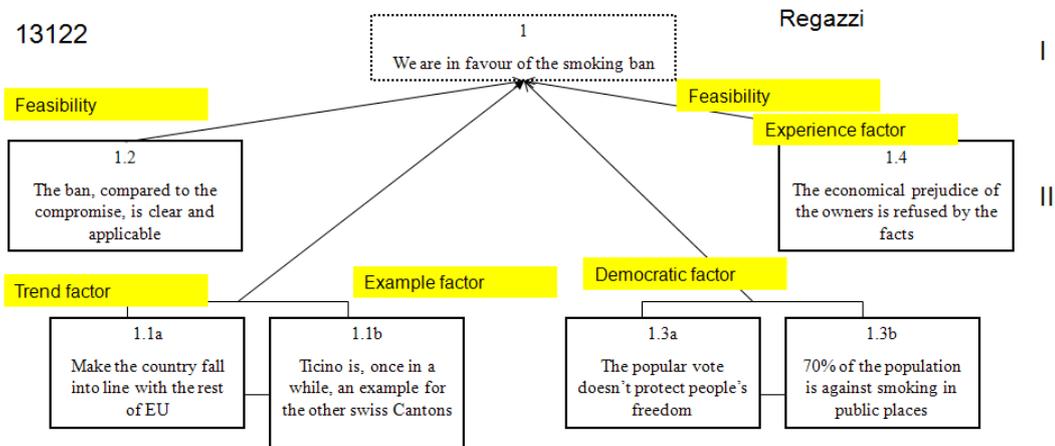
Figure 4.5 Argumentative structure and labeling of an article

Figure 4.5 refers to another article. The statement here is only the general one which renders explicit the tendency of the arguer's discourse as it wasn't manifest and had to be reconstructed. In any case, in this graph it is clear that the argumentative structure has only two levels and that the standpoint is supported by a multiple argumentation. The arguments of this multiple argumentation are then single or coordinative. As we can see here there are six labels, more than in the other two articles. This means that the labels are a question of semantics but don't depend on the length of the argumentative structure: a label is assigned when a change in the semantics of the argumentation is identified.

Taking this generalization process one step further, the analysis can be represented in tree diagrams. Tree diagrams accurately represent the argumentative structures with the texts in the nodes now replaced by a bullet. In this new representation the type of arguments are always decipherable as are the labels and similar structures are easily recognizable. Tree diagrams are the highest level of abstraction of an argumentative structure.
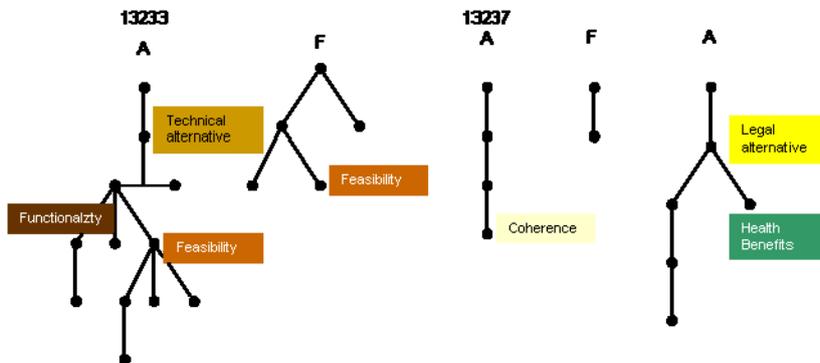
Figure 4.4 Tree diagrams

Now that the qualitative analysis process has been described, it is time to observe each step of the analysis in relation to the results it provides. Taking figure 4.1, the following section is the development and explanation of the variables deriving from the qualitative analysis of the object; in this case from the sample of 39 articles.

4.4 Results

Following the explanation given above of the analysis procedure with its new and classical steps, it is now time to present the results. This section illustrates the main results of the argumentative analysis. As shown in figure 4.1, the qualitative analysis provides a description of the object comprising many variables. An overview is given here of the variables resulting from the application of this qualitative method. The main goal of the study of the smoking ban debate was to describe the debate itself, with special focus on the frames involved. The following pages tell the story from the point of view of argumentation.

4.4.1 Identification of different standpoints

One interesting feature of the argumentation perspective on the articles of the smoking ban debate was the identification of the main standpoints of the articles. As mentioned above, each argumentative structure was assigned a generic standpoint representing the arguer's tendency ("I am in favor of the ban" or "I am against the ban"). However, the standpoint that gives rise to the argumentative structure as a whole is clearly different from this schematization. For this reason, in each argumentative structure there is a first

box with a dotted line that indicates the generic standpoint followed by the second box for the arguer's main standpoint.

The debate on the smoking ban was long and complex and many players were involved over the three year observation period. Various measures were taken in the political and legal environment and the perspective evolved over time. So far, the major changes noted concern the change in the arguments/frames used. Now, with a significant sample of 39 articles suitably distributed over time, it is possible to observe how the changes both in the political arena and in other fields affected the standpoints of the discussion. It is possible to pinpoint where these changes happened and how they were commented, no longer considering the smoking ban as a fixed object but as a variable, because it does indeed change over time.

At the end of 2004 discussion about a possible smoking ban was open to different judgments and it was at this point that the political class became interested in drafting a law. Some standpoints commend the position of the political class: "Il Governo ha fatto benissimo a inasprire le posizioni antifumo"/ "Our Government made the right choice in toughening up its position on smoking". others merely take into account the problems caused by smoking: "Il fumo passivo è molto nocivo e disturba parecchio"/ "passive smoking is really dangerous and is very annoying".

During 2005 the most representative standpoints are: "No al divieto assoluto, sì al compromesso attraverso la ricerca di un consenso"/ "No to the absolute ban, yes to a compromise reached by mutual agreement" (Ticino Bar Owners' Association, April 2005). This standpoint is important because it marks a decisive moment in the political debate when other forces of the population were demanding changes in the proposed law. In October 2005 Ticino Bar Owners were calling for the problem of passive smoking to be solved without compromises: "Bisogna che il legislatore risolva in modo definitivo senza compromessi il problema del fumo passivo", was their standpoint. But this discussion had been in the news even before the bar owners intervened. In February 2005 the politician Carobbio stated: "Eventuali deroghe al divieto priverebbero di forza la norma"/ "Possible exceptions to the ban would deprive the norm of its efficacy". These standpoints bear witness to the presence of different ideas within the political class and this was the time when compromises were being discussed. Again in September 2005 another politician, Edo Bobbià, proposed another compromise: "We are against the proposed smoking ban, we propose another compromise". But what kind of compromise? The only information we have about a compromise was the one proposed by the Ticino Bar Owners' association in June 2005: "We propose an amendment". Continuing in our observation of the argumentative structure we see that this proposal

consists of a technical alternative that would allow smokers and non smokers to be in the same place without applying a smoking ban: aeration machines.

In 2006, the first standpoint collected is: "Bisogna elaborare un progetto per un'efficace protezione dei non fumatori e dei bambini/adolescenti"/ "We must develop a project for the protection of non smokers and children/adolescents". This seems to be an old standpoint in the discussion in Ticino, one that can be traced back to 2004. If we look at the arguer of this standpoint it is in fact a politician from Grigioni. This is the sign of a newly hatched discussion in another Canton, perhaps spurred by Ticino, the first Swiss Canton to introduce a smoking ban. Coming back to the discussion in Ticino, at the beginning of 2006, before the popular vote of March 2006, there are not only standpoints expressing opinions but also reports on experiences: "Da quando ho introdotto il divieto la mia clientela è aumentata"/ "Since I introduced the ban the number of customers has increased". But once again, in February the voice of a politician calls out for a compromise; it is that of Lorenzo Quadri, one of the politicians of the Lega who collected the signatures for a popular vote, but the voice of his party is now solitary: "Proponiamo un compromesso adeguato e ragionevole"/ "We propose a reasonable and adequate compromise". And the voice of Lega is, indeed, solitary. The population voted in favor of the smoking ban (about 80% in favor) and immediately after the referendum the politicians worked towards a generalized smoking ban in other places and throughout Switzerland: "Il risultato del referendum è molto importante"/ "The referendum result is very important" (Pesenti). The discussion then continues in the same tone, considering the smoking ban a new and consolidated social fact and no longer a variable in Ticino. The standpoints then concern the application of that law: "Il divieto va applicato subito"/ "The ban must be immediately applied", or they discuss the possibility of an extension of the law, this time on a federal level: "Deve essere una legge federale per tutti i ritrovi pubblici"/ "It must be a federal law for every public place". Some comments on experiences also confirm the virtuousness of the law: "Noi abbiamo anticipato il divieto"/ "We anticipated the ban". During the second semester of 2006 the voices concern the ground-breaking role of Ticino in Switzerland: "Il Ticino è stato un segnale forte, il primo cantone svizzero"/ "Ticino was a strong signal, the first Swiss canton", and again "Il Ticino è un cantone di esempio in cui la maggioranza ha applicator la legge"/ Ticino is an example, a canton where the majority applied the law".

During 2007 not only was the smoking ban considered a fact and discussion turned to whether it should become a federal law, but discussion in Ticino appears to almost completely die out. Articles about the Ticino ban are no longer argumentative, except for one case, involving casinos and whether or not they are under Cantonal jurisdiction: "Ciò che accade sul tavolo attiene alla confederazione mentre l'aria del locale è di

competenza cantonale"/ "What happens on the tables regards the Confederation, but the air of the casino belongs to the Canton".

Observation of the different standpoints identified offers a clearer picture of some aspects in the evolution of the discussion and one point in particular came to light: the smoking ban was at first a variable with different values attributed over time and then it became a social fact.

Another reflection should be made on this new aspect emerging from the argumentation analysis: can it be generalized to a larger sample? We could categorize not only the arguments but also the standpoints in a future content analysis. With a more sophisticated concept of arguments and standpoints it could be possible not only to have a tendency but also a dimension that represents the variability of the concept of a smoking ban.

4.4.2 New conceptualization of arguments

Reconstruction of the argumentative structure based on pragmadialectics is a more assertive way of conceptualizing the arguments. This new step ensures greater certainty in the identification and categorization of key arguments in the discussion: it is an advantage that is almost impossible to describe in itself. However, this improved knowledge gives rise to other features/results described in this section. Moreover, the clearer conceptualization of arguments and standpoints helps to reinforce a standard approach among coders and therefore contributes to training and to obtaining a reliable content analysis.

4.4.3 New categorization of arguments: Labels

As already mentioned, the argument types were labeled. Since a primary aim of the argumentation analysis was to discover what features could be added to the content analysis, it was important to find a way of generalizing the results of the qualitative approach to a new quantitative one. There was a semantic aim behind the description of the smoking ban debate: that of defining the argument categories used by the subjects to discuss the smoking ban. For this reason the quantitative content analysis already included a classification of arguments. In this stage of the work a different argument categorization was needed to make the reconstruction of the argumentation phase more accurate and theoretically grounded.

Twenty-one topic indicators were identified and they tell us something interesting about the debate. They show that some associations, politicians or even a part of the general public were demanding either a technical or a legal alternative. How did we manage to draw this conclusion? Because the argumentation analysis, as illustrated in the first sub-section, identified the variable concept of the smoking ban.

The labels also reveal that *freedom, health riskiness, health benefits* and *democracy* were the most used category of arguments, but the *feasibility* argument was also often used.
The labels are certainly generalizable, they were invented as generalizable categories, and are ideal for quantitative analysis because it is possible to count their occurrences, to compare their form over time and to set them against other categories. As a matter of fact, in the quantitative content analysis we already had categories of arguments, and we counted them, but the resulting categories are now more precise because they derive from the meticulous reconstruction of each argumentative structure. These labels derive from the definition of each argument in the text.

4.4.4 Argument schemes

As explained in the introductory chapter to the argumentation theory, one way of categorizing arguments is to define the argument scheme. This is completely different from the labels because those are based on the structure of the arguments and not on their semantics. In the argumentation theory there are many classifications of argument schemes. For some scientists, such as Walton, there are hundreds of schemes. For others it is possible to reduce them to dozens, but for pragmadialectics there are only 3 main argument schemes: *symptomatic*, *causal* and *analogical*.

The argument schemes recognized during the analysis of the sample are mainly two: *symptomatic* and *pragmatic*. It is rare to find an *analogical* association or a *causal* association. Indeed, it is difficult to use causal association when predicting the effects of a future law and it is even more improper to use a causal relationship when explaining expectations. The analogical association for an argument in favor or against the ban is potentially possible, but there are few to be found in the sample. However, we can easily imagine the use of a pragmatic association, which is a special kind of causal scheme because it is more suitable for expressing a prediction and not a consequence such as "smoking ban will reduce molestation harassment". It is also easy to understand the application of symptomatic associations in the reasoning behind a smoking ban because it is related to all the arguments that attempt to show the good and bad in something.

Argument schemes are easy to generalize; they involve accurate reconstruction of the premises of each argument but there are only four categories. However, it seems to me that counting argument schemes does not help much in the reconstruction of the debate. It is much more interesting to focus on the argument categories used and their trend, or maybe to try to expand the concept of the smoking ban. An association can be made between the labels and the argument schemes but the results are not useful for the purpose of this thesis. It is easy to imagine one kind of argument scheme for each label and the observation of the usage of one scheme or another does not tell us much more about the discussion. In a certain sense the argument schemes are just another way of typifying the arguments but since the typification I need for the description is based on semantic criteria, I am not interested in identifying the argument schemes in the overall sample.

4.4.5 Fallacies

The investigation of fallacies plays a central role in the argumentation theory. Pragmadialectics defines fallacies as "a way of impeding the progress of the discussion" and represent "a violation of the discussion rules that must be followed in order to successfully resolve a difference of opinion" (Van Eemeren, Grootendorst and Henkemans 2002, p. 110). For this reason they associate each fallacy with a precise rule, one of the ten classified in the various discussion stages. The method described in this chapter inherits all the significant stages of the Pragmadialectical approach to the argumentation theory. Also this final stage, which follows the reconstruction steps and which consists in the identification of fallacies, is based on the approach of the School of Amsterdam. The Pragmadialectical approach was not chosen with a view to evaluation of argumentation, one of the three pillars of the theory. The study of fallacies works in this sense but the identification of fallacies can be useful also in telling us more about the debate. Fallacies are more than semantic identifications, they appear in the connections between arguments.

Discovering fallacies is a difficult task: the table below shows the main fallacies identified at first glance in my sample of 39 articles (35 analyzed).

FALLACIES	Occurences
Argumentum ad Hominem circumstantial variant	2
Argumentum ad Populum	7
Argumentum ad Baculum	1
Argumentum ad Verecundiam	1
Argumentum ad Ignorantiam	3
Slippery Slope	3
Violation of the rule 6	1

Table 4.3 Fallacies in the sample of articles

The fallacy *Argumentum ad Populum* is the most frequent with 7 occurrences. This fallacy is a violation of "Rule 7: a standpoint may not be regarded as conclusively defended if the defense does not take place by means of an appropriate argument scheme that is correctly applied" (Van Eemeren, Grootendorst and Henkemans 2002, p. 130). "In the populist fallacy, the opinion of some number of people is used in arguing for the acceptance of the standpoint: it is claimed the standpoint should be accepted because so many people agree with it". It may be interesting to reflect on this result in relation to labels. The most frequent labels involved concepts such as democracy, health and freedom, which are very *popular* themes. Besides, the smoking ban is in itself a popular theme that prompts everybody to intervene in the discussion in the newspapers. It is easy to imagine that if we argue in order to convince somebody to take our side we could leverage the opinions of the entire population. However, this finding is really significant because it testifies this position and the fact that arguments are often used with some irregularities by the side in favor of the ban.

Apart from this general conclusion it is interesting to examine the fallacy with the highest number of occurrences with reference to the articles in which it occurred.

- 13023 "Nella vicina penisola il divieto è stato accettato dalla maggioranza della popolazione"/ "in Italy the ban has been accepted by the majority of the population"
- 13080 "Gli avventori hanno giudicato un notevole miglioramento dell'aria"/ "the clients recognized a big improvement in the air"
- 13172 "è in sintonia col discorso della stragrande maggioranza dei ticinesi"/ "it is on the same wavelength as the large majority of the Ticino population"
- 13202 "Il popolo si è espresso in modo democratico e netto"/ "The population expressed its opinion in a democratic and unequivocal way"

- 13287 "Il popolo è orgoglioso di queste conquiste"/ "the population is proud of such a conquest"
- 23003 "Il divieto è in primo luogo apprezzato dai fumatori /questo la dice lunga sul successo della votazione popolare"/ "The ban is first and foremost appreciated by smokers, this tells us a lot about the success of the popular vote"
- 23059 "La mentalità della popolazione è mutata"/ "the mentality of the population has changed"

As we can see, the "populum" considered in the articles is mainly the Ticino population but it could also be tourists or politicians or another country's population. Most of the time the arguments do not present clear proof of the majority the arguers are referring to. The content of the argument then varies from acceptance of the law in another country to the result of the popular vote in Ticino, or from the idea that the majority wants a ban to the hypothesis of a definitive change in mentality. The fallacy *ad populum* always occurred in the argumentation in favor of the ban. This is coherent with the results of the content analysis where the argument "the ban is right because the majority wants it" is one of the most frequent. It is also coherent with the result of the popular vote, in which 80% of the population voted in favor of the smoking ban. However, the population in question is not always that of Ticino and, moreover, this argument is used in a fallacious way because proof of a popular consensus didn't exist until after the vote of March 2006.

Continuing in the observation of the occurrences, another frequent fallacy seems to be the *slippery slope,* another violation of rule 7, represented by improper use of the pragmatic argumentation, which is very frequent as we have already seen. "The mistake here is to wrongly suggest that adopting a certain course of action will inevitably be going from bad to worse, when in fact there is no evidence that such an effect will occur" (Van Eemeren, Grootendorst and Henkemans 2002, p. 132). This fallacy appears in the argumentation against the ban. The strongest arguments of the side against the ban were in fact, as shown by the content analysis, the lack of freedom and excessive intervention of the State. The fear they try to spread with their argumentation, and with the use of the slippery slope fallacy, is that the State will have more and more control over people's lives through this kind of law and ban.

The third most frequent fallacy is the *argumentum ad ignorantiam*, which constitutes a violation of the "Rule 9: a failed defense of a standpoint must result in the protagonist retracting the standpoint, and a successful defense of a standpoint must result in the antagonist retracting his or her doubts" (Van Eemeren, Grootendorst and Henkemans 2002, p. 134). In this kind of fallacy the antagonist "who makes this claim is guilty of the fallacy of concluding that a standpoint is true because the opposite has not been successfully defended" (Van Eemeren, Grootendorst and Henkemans 2002, p. 135).

This fallacy occurs in the argumentation in favor of the ban. They claim that the side against the ban is unable to propose good arguments to support their thesis. This is the case of article 13302 in which two people say: "I firmatari del referendum non hanno saputo dare argomentazioni valide"/"the people who signed the referendum were not able to put forward valid argumentations". This fallacy is proposed again by normal people in article 13305: "I fautori del "no" al divieto non possono escogitare argomentazioni"/"The promoters of "no" to the smoking ban cannot think up argumentations". Again, these fallacies are used by the side in favor of the ban.

4.4.6 Transparency indexes

It is legitimate to assume that there is a difference in the arguments' position in the argumentative structure; it is therefore important to look at the ranking of the arguments/labels in the structures where they appear. Even although it is not possible to speak of importance, we can imagine that there will be a dominant factor, a transparency factor: the argument on the first level of the structure is the most memorable. This idea came from Van Dijk (1988) "macrosyntax" (chapter I): *For most news stories macrosyntax consist in an inverted pyramid and by the rule of source attribution. An inverted pyramid is a sequential organization of structural elements: for example headline, lead, episodes, background and closure. The signifying power of these elements varies in descending order. For example a headline is the most important syntactical figures that can activate some semantic process in reader's mind.* The table below shows the occurrences for each label. The occurrences field indicates the level of appearance in relation to the number of levels of the structure and the identification number of the article is given. Two transparency indexes were created based on the level of appearance in the argumentative structure. Transparency here means the level of relevance of the label in the general structure. ***The first index is absolute***, given by the level of the tree diagram in which the label is situated. The second is the ***relative transparency index***, the ratio between the level of the label in the structure and the number of levels of the structure itself. This index will be a number between 0 and 1 and the closer it is to 0 the greater the transparency will be; the closer it is to 1, the lower its transparency. These new features have to be proved in a large number of articles. Each article of the content analysis would probably have to be reanalyzed for subsequent comparison of the indexes. That is why in some cases the reconstruction of the argumentative structure can be a complex process. Hopefully it is a faithful reconstruction but we cannot unquestionably say that the reader perceives the prevalence of the argument.

The two transparency indexes can be derived from this table:

LABELS	Occurrences
Freedom 16	3/3 (13005); 3/5 (13053); 4/7 (13080); 2/4 (13113); 3/4 (13119); 2/2 (13122); 3/3 (13146); 2/3 (13172); 2/2 (13172); 2/3 (13172); 2/4 (13208); 2/4 (13208); 2/3 (13267); 2/6 (13305); 2/2 (13336); 3/3 (23003);
Economical expenses 3	4/4 (13119); 4/5 (13287); 6/6 (13305);
Experience 4	2/5 (13023); 3/6 (13028); 2/2 (13122); 2/2 (13122);
Nuisance 7	3/5 (13023); 5/5 (13023); 2/6 (13028); 2/5 (13033); 2/2 (13172); 4/4 (13302); 2/5 (13339);
Health Benefits 12	5/5 (13023); 4/7 (13080); 2/2 (13122); 2/3 (13172); 2/3 (13172); 2/2 (13172); 2/3 (13207); 3/5 (13237); 3/5 (13287); 4/6 (13305); 3/3 (23003); 3/3 (23119);
Health Riskiness 18	2/6 (13028); 2/6 (13028); 4/6 (13028); 4/6 (13028); 2/5 (13033); 2/2 (13116); 3/4 (13119); 2/3 (13163); 3/3 (13163); 2/2 (13172); 3/5 (13287); 2/4 (13302); 6/6 (13305); 3/4 (13317); 2/4 (13336); 3/4 (13336); 2/3 (13338); 2/5 (13339);
Feasibility 14	2/5 (13023); 2/6 (13028); 1/5 (13033); 2/2 (13122); 4/4 (13202); 2/2 (13212); 3/6 (13233); 3/5 (13237); 2/4 (13336); 2/4 (13336); 3/4 (13336); 2/3 (13338); 1/5 (13339); 1/3 (23003);
Economical losses 5	2/5 (13023); 2/5 (13053); 3/3 (13146); 3/4 (13202); 3/3 (23141);
Prohibitionism 3	3/5 (13053); 2/3 (13146); 2/4 (13208);
Technical alternative 3	3/7 (13080); 3/4 (13208); 2/6 (13233);
Functionality 3	4/7 (13080); 2/3 (13172); 3/6 (13233);
Democracy/Majority 13	3/4 (13119); 2/3 (13163); 2/2 (13172); 2/4 (13202); 3/4 (13202); 1/2 (13212); 2/5 (13287); 5/6 (13305); 2/4 (13317); 2/4 (13317); 3/3 (23003); 3/4 (23059); 2/3 (23193)
Trend 1	2/4 (13302);
Example 5	2/2 (13172); 3/5 (13287); 3/5 (23062); 2/2 (23072); 2/2 (23084);
Coherence 2	3/4 (13208); 4/4 (13237);

Legal protection 5	2/5 (13119); 3/3 (13172); 1/2 (13212); 4/4 (13317); 2/3 (23141);
Legal alternative 4	1/3 (13146); 2/4 (13208); 2/5 (13237); 2/3 (13338);
Persuasion 3	2/6 (13028); 2/4 (13302); 2/6 (13305);
Federal competence 5	3/4 (13317); 2/4 (13336); 2/4 (23059); 2/4 (23119); 2/3 (23119);
Tolerance 2	2/2 (13172); 2/2 (13172);
Egoism 1	3/6 (13305);

Table 4.3 Level of appearance of the labels

These two indexes are the result of our consideration on which of these findings can be generalized. They are interesting because they can tell us more about how the labels are used in the articles; in particular they indicate where the label appears in the argumentative structure.

4.4.7 Relationships between labels: Matrix

Another generalizable result of this analysis on the smaller sample was a matrix that compares the labels. This matrix shows the relations between the labels, the tendency in which the label is used and the time period in which it is used. If we take a quick look at the legend we can distinguish a time period and a tendency for each color. The first period is from October 2004 to September 2005, the second is between October 2006 and March 2006, during the defining moment for political discussion and the popular referendum, and the third is between April 2006 and May 2007, after the decision was taken about the ban. The result cannot be extracted from our previous content analysis because although we can identify cases where some argument typologies appear together in an article, we could never say if they are in any way related. In the argumentation analysis we selected labels on the basis of their position in the tree diagram and in this way we are sure about their relationship. This relationship indicates the sequence of the topics in a subordinative argumentation, thus pointing to topic patterns. By identifying relationships in the entire sample of articles we could also define patterns as argumentative strategies.

	Coherence	Democracy	Economical Expenses	Economical Losses	Egoism
Coherence					
Democracy		X			
Economical Expenses		XX			
Economical Losses		X			
Egoism					

Each sign represent a tendency and a time period

	Ip	IIp	IIIp
F			
A			

Figure 4.5 A fragment of the matrix

The relationship shown in this matrix is the one between *Democracy* and *Health riskiness*, used in favor of the ban and mainly in the second period, after the decision of Parliament and before the referendum. Another association is between *Feasibility* and *Nuisance*, always used in favor of the ban but in the first period. The last relationship used in favor of the ban in the first period is between *Feasibility* and *Health riskiness*.

Other relationships used against the ban and always in the second period are: *Democracy* and *Freedom*, *Democracy* and *Health Benefits* and, finally, *Democracy* and *Persuasion.*

4.4.8 Changes in framing

Argumentation analysis confirms the hypothesis of a shift from argumentative framing to a more anecdotal one in the articles. From the content analysis dataset it was clear that the journalistic styles changed drastically a few months after the referendum. This is also shown by argumentative analysis. There is either a clear reduction in the labels in the argumentative structures or it is impossible to reconstruct the structure, as already mentioned in sub-section 4.4.1.

4.5 Case study: the economical argument

Even although the main goal of the thesis is methodological, the methods are applied to one object and their goal is the description of the object itself. The debate has to be described using the two methodologies but to do this it is necessary to focus on just a few points. From the outset the majority was in favor of the ban, as confirmed by the result of the survey on Ticino population. However, newspaper coverage represented the arguments of both sides. Moreover, the result of the popular vote in March 2006 is conclusive and the panel study again showed us that the population was even more convinced about the appropriateness of the smoking ban. So, what happened in the period between discussion in Parliament and the popular vote? Some arguments may have become more effective while others may have lost strength. Besides the strongest arguments of freedom, health and democracy, there was another strong argument, directly applicable to the side against the ban: the economical one. The economical argument has two sides both in content analysis and argumentation analysis: *economical expenses* and *economical losses*. This section presents an in-depth study of how these arguments were developed.

4.5.1 Economical arguments in all their dimensions of the qualitative study

The economical labels have eight occurrences in the qualitative sample, three occurrences for the economical expenses argument and five for the economical losses one.

The first occurrence of the economical losses label is in an article of 18th February 2005, at the beginning of the discussion and about one month after the application of the smoking ban in Italy. The labeled standpoint is "I am for the smoking ban" and is directly supported by a coordinative argumentation:

- 1.1a The owners are afraid of losing clients;

- 1.1b But in Italy the ban has been accepted by the majority of the population.

1.1a represents the economical losses argument but in this case it is counter-attacked with argument 1.1b related to experience and feasibility. This is a case of a direct label relationship (represented in the matrix), which very clearly connects a negation of the economical losses argument with the experience and feasibility argument. This kind of connection is the strongest because it builds a coordinative argument. The relative

transparency level here is 2, the highest possible, because it is directly associated with the main standpoint, and the absolute level is 0.2 because the structure has 5 levels. In this first example the scheme behind the argumentation is *analogic* and it is possible to recognize the *fallacy ad populum,* which is the first occurrence shown in section 4.4.5.

Two months later, another economical losses label appears in another article (16th April 2005). This time the argument is used in a multiple argumentation and is at the very end of the structure. The content of the boxes 1.1.1b.1b is: è un periodo di forte stress congiunturale/ It is a period of great stress in economical terms. In this article the labeled standpoint was: I am against the smoking ban, but it was directly connected with another specific standpoint: No al divieto assoluto, si al compromesso attraverso la ricerca del consenso/ No to the generalized ban, yes to a compromise through mutual agreement. In this case the standpoint directly expresses a label: Legal alternative. Looking deeper into the argumentative structure, we can see a coordinative argumentation followed by a multiple one that presents the freedom label and the economical losses label. The two labels aren't associated because they are a multiple argumentation. However, here the economical losses label is associated with the legal alternative in this way: the economical losses label is a rational justification for the demand for a legal alternative. This consideration gave rise to another methodological observation: the relationships in the matrix are of different kinds. Categories can be found to define relationships between labels. As regards transparency, the relative level is 4 and the absolute one is 1 (4/4).

The third occurrence of economical losses is in May 2005. In this article the economical losses label is again directly related to the labeled standpoint which is "I am against the smoking ban". This time the standpoint is supported by a multiple argumentation comprising two arguments. Argument 1.1 is not labeled, while the other is the economical losses 1.2: Le mete turistiche cambiano, mancheranno svariate entrate/ Tourist destinations are changing, we will lose a lot of revenue. Here again the owners' concern is expressed and this time the label is not related to any other one. The relative transparency index is 2 while the absolute transparency index is 0.2.

The economical losses label appears again one year later, immediately after the popular vote, on 21st March 2006. This time the labeled statement is again "we are for the smoking ban", and is connected to a specific one: La dichiarazione del vicepresidente di Gastrosuisse è una attacco a Gastroticino e al popolo sovrano/ The declaration of the vicepresident of Gastrosuisse is an attack on Gastroticino and on the population. This argument is labeled democracy and is supported by five boxes that make up a multiple

argumentation. One of these boxes is the argument denominated economical losses and is obviously counter-attacked: È assolutamente inveritiero che il divieto penalizza gli esercizi nelle piccole località/ It is absolutely untrue that the ban penalizes public places in small villages. In this article the economical losses label is associated with the democracy label. Since the argument here is negated it is difficult to name the association between the labels. But once again economical losses is one of the rational justifications for the standpoint that assesses democracy. How can democracy go against the economical interest of the owners? This is the question behind this relationship and the answer is in the negation of the economical losses argument. The relative transparency index is 3 while the absolute one is 0.6 (3/5).

The last occurrence of the economical losses label appears one year after this article (April 2007), hence after the definitive application of the law. Here it was necessary to change the labeled standpoint to: we have doubts about the smoking ban. The standpoints "I am in favour" and "I am against" are now anachronistic when the articles speak about the smoking ban in Ticino. The arguer in the article is skeptical about the ban, but now s/he can only comment the consequences because the ban has already come into force. However, the economical losses label is associated here to this argument: Non bisogna danneggiare I locali pubblici/ We can't damage public places where the term damage refers to economical damage. The arguer is speaking about the fact that smokers are obliged to leave the premises if they want to smoke and that people who live close to these establishments are fighting for them to close earlier in the evening. This would certainly result in a loss of income for the owners. The economical losses label is in fact also connected to legal protection. In this case the legal protection is not for non-smokers but for the owners and the neighbors of the public places. In this case then the association between legal protection and economical losses is again a rational justification: they need to be protected because they risk economical losses. The relative transparency index here is 3 and the absolute one is 1 (3/3).

It is now time to turn to the discussion of the economical expenses label. The first occurrence is on 17th January 2006. The arguer here expresses in favor of the ban and the specific standpoint is: Bisogna elaborare un progetto per un'efficace protezione dei non fumatori e di bambini-adolescenti/ It is necessary to develop a project for efficient protection of non-smokers and children-adolescents. The standpoint here is labeled as legal protection and the economical expenses label is situated at the very end of the structure. It is associated with the argument: Enormi spese sanitarie ed economiche/ Enormous health and economical expenses. Here the economical expenses argument is associated both with legal protection and with health riskiness. The fact is that the arguer

is assessing the need for a ban in order to protect people from health risks caused by passive smoking, which again cause economical expenses. This time the association between labels is a rational justification. The transparency indexes values are the following: relative 5, absolute 1 (5/5).

The second occurrence of the economical expenses label is in February 2006, one month before the popular vote. Here again the arguer is in favor of the ban and the label refers to the health expenses caused by smoking and other bad habits. The label is associated with causa altissimi costi sociali/ s/he creates very high social costs. This argument is then connected to the box Chi non rispetta i limiti crea Danni/ Whoever doesn't respect the limits causes damage. This sentence is supported by a multiple argumentation, and among these multiple arguments there is the economical expenses one. The economical expenses label is once again connected to health riskiness and for the first time to democracy, but again with a rational justification association. The relative transparency index is 4 and the absolute one is 0.8 (4/5).

The last occurrence of the economical expenses label is three days before the popular vote. The arguer is again in favor of the ban and the specific standpoint is: I fautori del "no" al divieto non possono escogitare argomentazioni/ The supporters of "no" to the ban cannot think up argumentations. This standpoint is labeled persuasion and the argumentative structure here is very long and complex, made up of every kind of argumentation. The economical expenses label is at the very end of the structure: Costano, consumano e sprecano, saremo chiamati alla cassa/ they cost, they consume and waste, we will be called on to pay. In this intricate structure this label is connected to many others: Persuasion, Freedom and Democracy. The result is a chain of rational justification associations which ends with the economical expenses label. The reasoning behind it is that the side against the ban has no arguments, they talk about freedom but it is not a matter of freedom. Smokers don't respect other people and it is a democratic obligation to resolve this situation, also because in the present situation smokers create high costs. The relative transparency index here is 7 and the absolute transparency index is 1 (7/7).

Concluding this observation of the economical arguments we can say that the economical expenses argument is typical of the side for the ban and is used exclusively in this tendency. The economical losses label is a typical argument of the side against the ban but in five occurrences it was used twice in a negated way in favor of the ban. This

shows that economical losses was not only one of the main arguments of the side against the ban but that it was a controversial argument, a typical argument for a debate.

Looking then at the time dimension, the economical losses labels prevail in the first part of the discussion with the last occurrence in May 2005. They reappear again only after the popular vote, commenting the new social fact. It is as if the economical argument is present in the first part of the discussion but then, maybe also because of its controversial usage, it disappears from the discussion. The economical expenses label is the opposite: it is present in the crucial part of the popular debate, during the three months before the popular vote and with a consistent tendency in favor of the ban.

4.6 Conclusions

To summarize the entire chapter the first thing that should be noted are the limits of the content analysis expressiveness compared to the argumentation theory approach. The quantitative content analysis is essentially incapable of describing relationships between topics, differentiation of the standpoints, argument schemes and the soundness of the argumentation. As already mentioned, the first advantage of using argumentation analysis for our purposes is to add the theoretical definition of argument, allowing us not only to have a collection of statements but also to understand the relationships between them. The most evident benefit of this is precise definition of arguments which indisputably helps in the definition of concepts for coder training. The concepts now derive from a grounded argumentation theory and the argument reconstruction process is more systematic and accurate. It is obvious that argumentative analysis requires specific knowledge and more time compared to content analysis and that is why this kind of qualitative analysis is always made on a limited sample while quantitative content analysis has the main advantage of recording a huge amount of data. The most pragmatic conclusion is that not all the parts of this new knowledge can be integrated in a future content analysis. The following chapter will examine in detail the difference between the results of quantitative content analysis and those of the qualitative method derived from the argumentation theory. I will then describe an hypothesis for the integration of the two.

Chapter 5. Content analysis and argumentation

Introduction

The main aim of this thesis is to create a new tool for content analysis by combining a quantitative and a qualitative approach. In order to achieve this goal a specific case study was necessary and for this purpose we chose the coverage of the smoking ban debate in Swiss newspapers over a period of almost three years. The aim of describing the debate was to identify the main media frames and their possible changes over time. The previous chapters introduced the case study analysis adopting quantitative and qualitative approaches. It is now time to draw some conclusions on the main question. In this chapter I will illustrate the positive and negative sides of both approaches, I will then compare them and I will then propose an integration of the two methods to create a new tool.

5.1 Content analysis benefits and limits

The biggest advantage of quantitative content analysis is the possibility of observing a huge quantity of data. This resulted in the DIFU content analysis which consisted of around three thousands articles. The aim of the DIFU content analysis was to describe the debate over a period of almost three years. The fact that a method allows analysis of many objects helps provide a more accurate description. But since our choice tended towards quantity, we then had to use only a few variables to describe each article. Content analysis can answer many questions and the analysis tools are usually designed around the central question. It is essential to understand the dimensions of the content in order to answer the question. It therefore goes without saying that in order to have a coherent corpus of data with so many objects the number of variables has to be reasonable. In this case reasonable means that the article cannot be described in all its details and operationalization must necessarily also consist of schematization. Moreover, the variables have to be fully typified. In a certain way it is as if the large number of objects results in a less detailed analysis. This is true for the DIFU content analysis but not for every kind of content analysis. Most of the time a quantitative content analysis simply collects and counts word occurrences, numbers of lines or some other kind of manifest content. But the concept DIFU wanted to identify; i.e. arguments, is not a pure example of manifest content. It has to do with discourse analysis and the typification of arguments is a clear dilution of the strength of those articles. However, the observation

period covered three years and the content analysis enabled the collection of all the articles concerning the smoking ban. Operationalization through typification meant that no article was excluded. The advantage of this is that it is a step towards completeness of the description. While the aim of the content analysis was to describe the debate in all its evolutions, the fact that none of the objects is lost is synonymous with completeness of the description. So, although quantity causes some loss of detail, it also provides a more complete description of the object studied.

The articles are described both with formal and content categories. Formal categories identified each article in an unequivocal way and content categories gave information about the argumentative content. The categories are manageable and can be interconnected in many ways using complex statistical methods. The strength of a huge corpus of data replaces the detailed description of a single object with the observation of statistically significant phenomena, which can be identified in the number of occurrences of a dataset.

On the other hand, the disadvantages of this approach are the limits in the description of a single object. For this reason, looking at just one article described with these few categories does not tell us much about the object itself. The breakdown of an article into its atoms, the statements, makes it impossible to understand any connections between them; it is as if some parts of the content remain hidden. It is impossible to recognize an argumentative strategy comprising two or more arguments from the data. As shown in chapter 3, even if we count the occurrences of two or more arguments used by the same source, we can never know anything about their semantic relationship. We cannot say that they represent an argumentative strategy just by counting their simultaneous occurrences.

In the same way, the arguments are typified in the codebook and there are quite a large number of categories. If we want to understand a change in framing we can only say if an argument is used or no longer used, on which side and by which sources. But we miss the nuances of the arguments and thus also the reasons for the change. The changes we identify are mainly sustained by interpretation, even if they are also supported by numbers.

5.2 Argumentation analysis benefits and limits

As explained at the beginning of chapter 4 (Figure 4.1), the qualitative approach takes into account fewer objects but in a more detailed way. This means that each object is described by many dimensions. Chapter 4 also shows how argumentative analysis of articles is more complex than quantitative analysis because it distinguishes statements, argumentative structures, labels, argumentative schemes, fallacies, level of transparency, etc. Moreover, each variable is derived directly from the article and not from a preexistent classification. The sample of articles examined using a qualitative method necessarily has to be small but the advantage it that we have a more detailed description of each article analyzed.

This approach provides in-depth information about the object and, as in any other scientific method, it involves interpretation but it is the object itself that makes the analyst speak about it. Considering the fact that argumentation analysis describes each article in detail, it can contribute to improved knowledge and recognition of the real arguments. An approach based on the argumentation theory is certainly more suitable for the recognition and description of the argumentative structure of texts. It also pinpoints statements in the discussion which are more complex than "I am in favor" and "I am against" the ban. Accurate reconstruction of the argumentative structure allows not only the frames/arguments to be considered as a variable in time, but also the concept of the smoking ban. This is important if we consider that the debate on the smoking ban also included many proposals regarding different kinds of ban.

The negative side of this approach is first and foremost all in the number of objects observed. A qualitative approach capable of describing all aspects of an object, which are also context dependent such as fallacies, is applicable only to few objects. The more the variables, the fewer the objects; that is inherent in the method itself and not just a question of time constraints. So, to extend the entire argumentation approach to three thousand articles is impossible because the resulting data would no longer be manageable. Going back to complex context-dependent variables; i.e. fallacies, we cannot expect to train coders on this type of analysis. Fallacies are too complex and they require interpretation skills of such a high level that we run the risk becoming unreliable.

5.3 Confrontation of the two approaches

Following the presentation above of the advantages and disadvantages of the two approaches, an interesting point to consider is their direct confrontation in the object analyzed. For this reason this section will discuss the cases in which the description of the same article using the two approaches differed (Appendix 5 - Table 1). For each article I will take into account the list of labels of the argumentation analysis and the statements with argument categories of the quantitative content analysis. These are the variables of the two analyses which are most suited for comparison.

The first difference I noticed looking at argumentative analysis, and labels in particular, compared to content analysis, is the resulting descriptions. To better explain this point let me refer to article 13005, which is described in the content analysis as an article with "General statement favoring the ban", "General statement opposing the ban" and "Other solutions for reducing passive smoking" statements. If I look at the argumentation analysis the only label that results from it is "Freedom". How can I explain this difference? We have to think of Berelson's scheme of the different points of view of the object of the message. Each subject represents it in a different way, with some overlaps. He speaks about the messenger's, receiver's and analyst's point of views. But we can also imagine that, depending on the methodology used, we can create more analyst's points of view. We should therefore not be surprised that argumentation analysis highlights different features from . even if we are considering the same object (in this case the argument); it's what we expected but we have to investigate the nature of this difference and answer the question: are these *new* features present in the receivers' points of view?

29 of the 39 articles differ in the description provided by the two analyses. Article 13028 counts two more aspects in the argumentation analysis compared to the quantitative content analysis: *feasibility* and *persuasion*. The explanation of this difference is obvious because these are two new concepts listed in the labels. They are new because there were no similar concepts in the argument categories of the content analysis. The same applied to articles 13122, 13233, 13212, 13080 and 13338. Article 13033 differs again in feasibility, but it also adds *nuisance*, a concept already present in the argument categories of content analysis. If we look at the description of the article given by content analysis we see that the focus of the article is just health.

The argumentative description of article 13053 adds *prohibitionism* to the description of content analysis. This is a nuance of the freedom category of quantitative content analysis revealed by argumentation analysis. Again, the prohibitionism label is present in the argumentation analysis of 13146, together with *freedom* and *economical losses*,

while the quantitative content analysis description identified just three statements with the same argument category. There are other examples (13172, 13208, 13237, 13287, 13302, 13305, 13339 and 23003) where the labels in the argumentative description are more than the categories in the quantitative content analysis.

On the other hand there are articles that are defined with more statements than labels. Examples of this phenomenon are 13163, 13202, 13317, 13336 and 23059.

On the contrary, four non-analyzable articles in the argumentation analysis (23156, 23155, 23121 and 13269) are described with many statements in the content analysis. That is due to the more theory grounded concept of arguments in the qualitative method. In qualitative analysis the arguments found are real, they are part of the argumentation stage of the text. In quantitative content analysis the coders were looking for indicators of opinions on the smoking ban and for motivations. They could perhaps sometimes have confused a sentence with a real argument but that was not the case. This depends greatly on the theoretical power of the method: the recognition of arguments in argumentation analysis is surely more grounded than in quantitative content analysis where the categories originated from a preliminary reading of a random sample of articles.

Argumentative analysis identifies different aspects, different arguments or new arguments because it is a more sophisticated method. The argumentation theory helps identify arguments more precisely as well as the systematic connection between proposals that create arguments.

The fact that this second, more sophisticated analysis brings to light new features leads to another question: why should we pay attention to something that at first glance appears to be hidden if the reader cannot notice it? The answer to this question is the framing theory. The more *framed* the reader is, the more s/he will be able to grasp an *apparently hidden* argument. The addition of the argumentation analysis is important in this sense. Even if it is really difficult, maybe impossible, to study the effects of some frames in the population, it is important to assess what the frames in the articles are, whether manifest or latent.

Now that it has been demonstrated that argumentation analysis can help in the accurate description of the debate and that it also differs at times from the DIFU content analysis, it is the time to think about how the two methods can be integrated.

5.4 The elaboration of an integrated method: measurements for a new codebook

Considering the integration of argumentative analysis features in the codebook, the first question to answer is which categories can be operationalized. First of all we have to rethink all the steps of the argumentation analysis.

Labels - The first steps, i.e. reconstruction of argumentative structures and addition of labels, can be fairly effortlessly formalized. This new procedure will obviously require more effort than the DIFU content analysis but operationalization is possible. Identification of labels could replace the argument category, and the list of arguments from the DIFU codebook could be replaced by labels resulting from this first sample analysis. It is only necessary to number the 21 labels obtained from the argumentation analysis. It may also be useful to rethink the division between the argument of the pro ban side and the argument of the side against the ban. In this case it is necessary to further elaborate the labels so that we can understand if a specific topic has been debated by both sides (see chapter 3).

Smoking ban variable - Reconstruction of the argumentative structure will also help identify more specific standpoints which are different from the simplistic generalization "I am against the smoking ban" and "I am in favor of the smoking ban". It could be possible to consider the smoking ban as a variable and to create a new field in the codebook for its representation. Since I found different proposed smoking bans during the three year period even in the smaller sample of 39 articles, I would typify it in categories. In this way it would be possible also to monitor the discussion about an extension of the smoking ban and so on.

2 Transparency indexes - Another category of the argumentative structure can be added: the number of levels of the structure. This new category can give an idea of the length of the structure and, along with the label category, it can be divided into two other categories: the transparency levels of the argument. Transparency levels are absolute and relative. The first is given by the level in which the label is located while the second is the computation of the ratio between the level of appearance and the total number of levels. Label transparency signifies the level of the structure where the label appears, considering that the higher the level, the greater the predominance/memorability for the reader. Numbering the argumentative structure also helps in the identification of the first and second element of the matrix.

Relationships between labels - With tree diagrams it is also possible to identify the relationships between the labels/argument types, building the matrix of relations

Appendix 4). This will tell us more about argument strategies, saying which argument is connected to another directly from the same branch of the argumentative structure. This will guarantee a real relationship between the labels which is more meaningful than the random count of occurrences in the same article of the previous content analysis. The relationship can be indicated in the codebook as a new content level category. It will be filled in when a relation exists, numbering with 1 the first label in the categories and the others in increasing order.

I will now consider the steps of the argumentation analysis which can or cannot be integrated in a new content analysis. It would be an exaggeration on my part to propose full integration of the two methods as in this case I wouldn't be taking into account the structural limits of each approach.

First of all, after reconstruction of the argumentative structure, the next step of a pragmadialectical analysis is the reconstruction of the arguments, reconstructing the unexpressed premises, and the scheme of each argument is then drawn up. This is an arduous process but one which can provide much more information about the arguments. It could help discover more nuances of the arguments, offering the possibility of creating more categories. However, prolonged analysis times and an over availability of resulting data may not be beneficial for description. As already stated above, having a dataset which is not manageable is a problem as it will not help describe the debate, on the contrary, it will just complicate things. For sure we could imagine that these features could be added to a content analysis to achieve a different goal. However, for my purposes and for the economics of the study it is not worthwhile.

After reconstructing the unexpressed premises the next step is to recognize the argument schemes. Pragmadialectics recognize three argument schemes but it doesn't provide any information that contributes to the description of frames and their changes. Many argument schemes will certainly provide more details but it is a step towards a normative study more than a descriptive one. This feature is better suited to the second soul of pragmadialectics: evaluation; a step towards the last category that cannot be added to a future content analysis: the fallacies.

Fallacies are the most important step towards an evaluation of argumentation but, as already said, evaluating the arguments of the debate is not the purpose of this thesis. Moreover, fallacies are the last step in the overall pragmadialectics process and require high levels of know-how and time. It is impossible to ask the coders to grasp such a profound concept during their analysis of articles. The competences in the argumentation theory required to investigate fallacies are very complex. For these two reasons this stage cannot be integrated in the content analysis, even if fallacies are already a typification

and could seem suitable to be a numerable category. The fact that fallacies have never been studied in the context of content analysis does not surprise me because, after I had applied the qualitative method I discovered myself that the process of finding fallacies is inapplicable to a quantitative content analysis. They are intended to remain a feature that can only be observed with a very refined study on a rather small sample of texts.

5.5 Conclusions

The advantages of adding the argumentation perspective to our content analysis are numerous and five categories should be added to the content level categories of the codebook. These categories take up different concepts from the argumentation theory but the resulting concepts are fairly new: they are semantic labels and transparency. This final concept allows us to understand the frames in the articles and above all to understand what position they occupy in the argumentative structure. These levels, designed within the matrix of relationships, can also help discover the sequence of topics in a subordinative argumentation. Once the relationships have been discovered in a wider sample they represent patterns of topics that stand for argument strategies that can be used again and again over time and by the same sources. Obtaining this result with the previous content analysis is possible if we count the occurrences of the type of arguments but we could never legitimately speak about their relationship. The label is a new conceptualization of arguments, it originates from semantics and categorizes the arguments used. This new categorization is broader than that developed for the quantitative content analysis. Most of the concepts overlap but some are new. This shows that the conceptualization of a more theory-grounded argument can help in the identification of the real arguments of the debate. This goes in the same direction as quantity: towards faithful reconstruction.

The point is that even while it is true that a quantitative content analysis can answer many questions, it is more a tool than a theory. It therefore needs theory if it is to be applied more effectively. In the case of the DIFU content analysis the goal was to find arguments. The quantitative content analysis in that case can be even more effective if we take a step backwards. Arguments are concepts studied by argumentation theorists. Their theories and models can help in the construction of a tool for quantitative content analysis. In this way we could have the depth of a specific theoretical approach in the background plus what has been inherited from social sciences. Moreover, we would still have the advantage of a huge corpus of data to process with statistical analysis. This is a step towards a more detailed approach without losing quantity. In this way the resulting description can be even more faithful.

In this last part of my dissertation I have illustrated an analysis based on labels but with pragmadialectics it is possible to reconstruct and identify also the argument schemes. While labels are typologies based on semantics, the identification of argument schemes derives from an in-depth analysis. It is necessary to reconstruct the premises, also the unexpressed ones. It would be possible to also add the argument scheme category to the content analysis since they are already typified. However, the definition of the argument scheme is not sufficient to judge if an argument is misleading. A further step is necessary: interpretive judgment aimed at recognizing fallacies. Fallacies are content-dependent and depend on many factors; they represent a violation of one of the ten rules of critical discussion of the pragmadialectical model. By breaking one of the rules a fallacy is an obstacle for the realization of a good critical discussion.

The most important result of the fusion of the argumentation theory and content analysis would be the capacity to judge a misleading argument. In this way we could count not just the occurrences of a topic but also the way it is expressed. For the first time a content analysis would be strong in qualitative background in order to judge a content describing it. However there appear to be insurmountable barriers to this complete fusion. The competence needed to be a coder is too high and in the meantime the level of reliability decreases. In this way the judgment itself becomes uncertain.

Thinking about the future, an important step would be to continue in the direction of a more theory-grounded quantitative content analysis focusing on argumentative content. It would be necessary to improve the theoretical knowledge and explore some fields that may be of interest such as the study of argumentative indicators. While this idea concerns the method, there is also another direction that research can take as regards content. Further research could be an in-depth study of the possibility of judgements of misleading argumentations within content analysis. At the moment I have excluded this possibility from my dissertation, but this hypothesis could be tested.

Conclusions

Smoking is an intriguing topic, widely debated throughout the twentieth century, and now, at the beginning of the twenty-first century, health policy is naturally affected by all the discussions surrounding it. From being an almost unknown substance, tobacco became controversial, with medical studies and moral judgments increasingly targeting it as new data and facts became available. It is now acknowledged that tobacco smoking, both active and second hand, is harmful and causes many kinds of diseases but the process of finding the evidence of these harmful effects was protracted and complicated. Even when the evidence clearly validated the health argument, it had to face the freedom argument. This is especially true when it came to the policies in which freedom and health were the souls of the smoking ban debates.

Discussion about a smoking ban in public places in Ticino confirms this trend and the application of the law brings to light one more way of framing smoking. After a century in which smoking, above all cigarettes, was socially constructed in many ways, the ultimate frontier in a growing number of countries has become an awareness that smoking is a habit to restrict. One way of observing this change in framing in Ticino is to look at newspaper coverage of the issue and thus delineate public opinion as it was represented by the media. Content analysis entails the collection of a huge amount of data that help us reconstruct the evolution and changes of the framing of smoking and the smoking ban.

Content analysis of the smoking ban in the Swiss media showed that the Ticino ban was important but was not the only argument presented in Switzerland. Smoking bans became a trend and both French Swiss and German Swiss newspapers discussed it even without mentioning the events in Ticino. The issue was dealt with in newspapers in the form of a real debate with many arguments in favor and against the ban. However, ultimately, the most popular arguments remained health, economics and freedom. The biggest change in approach occurred after the people of Ticino voted in favor of the ban. From that moment on the discussion in the print media became more anecdotal and less argumentative. The smoking ban had become part of social reality, a new concept of smoking.

In Social Sciences the content analysis method is popular and has incontestable advantages. However, in this specific case of the analysis of argumentative content the limits of the method became clear. It has many shortcomings when attempting to evaluate the expressiveness of the argumentative content. This limit became even more evident after comparison with a more theory-based argumentative method deriving from Pragmadialectics, suggesting that a combination of the two approaches could be

worthwhile. In short, content analysis is a tool and not a theory but, if based on appropriate theories, it can answer a whole range of questions. This dissertation proposes a possible combination of the two approaches.

This new combination offers more advantages than content analysis alone but it is still not as expressive as a purely argumentative reconstruction, to be carried out on only a few texts. The limits depend on the fact that a complete fusion of the two approaches is not possible.

It would be interesting to test the method on a large sample, such as that prepared for the first content analysis (more than 3000 articles), to better define the limits. Another interesting reflection regards the tools, such as argumentative indicators, that can help to make this integration easier and more complete.

This thesis falls within the context of health communication but it is above all a methodological reflection on the application of content analysis to argumentative content. This reflection reached its apex with the attempt to use a qualitative method alongside a quantitative one. The result is a new tool for the analysis of newspaper articles which is more expressive as regards argumentative content.

Limits of the research

In this dissertation I explored how the smoking ban topic was addressed by Swiss written media. However I made just few times an interpretation based on cultural differences between the three linguistic regions, which could have been an interesting perspective of analysis. One of the richness of Switzerland on a research perspective is indeed its cultural and political diversity. Even if French, German and Italian Swiss are tied together in a unique nation they are individually more similar to the neighboring countries. This is probably to be explained by historical and linguistic reasons. Further studies could systematically observe the cultural and political perspectives.

The choice of the observation period for the content analysis has historical explanations. During the three years of articles collection the most important facts for the creation of a smoking ban happened in Ticino. Between them I considered also the application of a ban in Italy, which was in my opinion an influencing fact. The historical perspective of the analysis is dominant. A fair critique of my analysis would be that the reasons why articles on the smoking ban had been published where not part of the codebook. By eliciting the occasions and events mentioned by each article it would have been easier also to explain some trends in the development of the discussion in each region.

The main aim of the thesis was to find the best way to represent argumentative content of smoking ban discussion through a content analysis. The aim was reached answering to the question: to what extent can the argumentation theory help in constructing the most expressive content analysis? However in the comparison between the content analysis and the argumentation analysis results I understood more of the limits of the content analysis I realized and the following statistical analysis. Even if argumentation theory add a more profound perspective on the concepts of arguments the content analysis realized lacked in itself of categories that could have been more expressive. That is for example the case of the above mentioned historical event category, or it is the case of a field that could elicit a relation between two arguments such as for example a category: "sub-arguments" or "upper-argument".

The study did some preliminary steps toward a mixed method content analysis. It shows that there is a potential in bringing together two different types of analyzing messages. Further investigations are required to fully exploit this potential.

APPENDIX CHAPTER 3

Codebook for the Swiss newspaper coverage of Smoking Ban

DIFU Project - *Monitoring of the introduction of Smoking ban in Tessin*

Authors: Prof. Peter J. Schulz, Uwe Hartung, Maddalena Fiordelli, Carmen Faustinelli

17 July 2007

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Introduction to the Codebook

The codebook has the purpose to measure the occurence and frequency of certain elements in the Swiss newspaper coverage of smoking ban (since 1st october 2004 to 31st march 2006). For every article, coders determine a number of qualities as prescribed in this codebook. Every coder receives printouts of articles to code. They can be coded in any order. The coder first reads through completely the article to code. He/she then codes the formal, article-level categories. Then the article is read a second time. At every occurence of a statement (argument either for or against the smoking ban), the statement is coded, filling in in the appropriate line the source, the type of argument, and the tendency to which it used (pro-ban or contra-ban).

A statement ends when one of the coded statement variables changes.

> Example: *„In ristoranti e bar il fumo deve essere vietato, come chiede la maggioranza della popolazione: lo afferma l'Istituto Svizzero di prevezione dell'alcolismo e altre tossicomanie (ISPA). L'obiezione del settore della ristorazione, secondo cui il divieto ridurebbe il fatturato, é confutata dai risultati delle ricerche più recenti, rileva l'Ispa."*

In this example we can see that the first sentence is a statement with the argument 15 Ban is justified because majority wants it. Next sentence of the same example is another statement with the argument 51 Financial losses for bars, restaurants, etc., here used with the tendency 1: Pro ban (see below the section 2.5.)

Some printouts consist of several articles, not all of which deal with smoking ban or related subjects. Examples of this are the sections "In Kürze" in Aargauer Zeitung, "Nachrichten" in Basler Zeitung. An article can be defined by its own headline, its own author or source, its own subject, its own place of origin indicated (Ortsangabe). Articles that make no mention of the subject under study are crossed through on the printout; no codesheet is filled in. For every article on the subject under study, a codesheet is filled in.

When coding was completed, reread the article a third time to check for statements so far undetected. If necessary, correct codesheet.

1. Article level categories

1.1. Identification number

Every article receives a four-digit identification number. The coder determines the number, by using consecutive three digit numbers, using the Coder key as first digit. In case numbers run out, the coder contacts project management to be allotted a new slot of numbers. The coder writes down the identification number on the codesheet and next to the article on the printout.

1.2. Coder

2 Mundwiler Muriel

3 Fiordelli Maddalena

4 Grasso Gianfranco

5 Mumprecht Esther

1.3. Medium according to Codeplan

See the end of this document.

1.4. Author

1 Journalist

2 Authority of the field (doctors, scientists)

3 Health institution or other institutions and associations

4 Delegates from associations of owners' of bars and restaurants

5 Politicians

6 Regular People (letters and interviews)

9 Unknown, unclear

1.5. Date of article, year, month and day

The German (and possibly other) language printouts list the date in the form Year-Month-Day. Take care to code accordingly.

1.6. Section in newspaper

1 Politics, general news section
2 Business, finance, economy
3 Culture, literature, theater, the arts, etc.
4 Human interest news
5 Sports
6 Special pages such as Life Style, Eating Out, Advice, Science, Health etc.
7 Local (often with city or region mentioned in title)
8 Other, e.g. supplements such as NZZ Folio
9 No indication, unclear

1.7. Type of article

1 Factual: News stories, reports
2 Opinion: Commentary, editorial, satire (all texts that report less about what happened, but rather formulate the author's assessment of it, his/her opinion and attitudes on it, his evaluation).
3 Subjective experience: Features, etc. (all texts that report what happened, but from an author's subjective point of view, how the author witnessed the occurence)
4 Interview
5 Clippings from other media
6 Letter to the editor
7 Service (Schedule, tips of all kind, alert to events)
9 Other, unclear

2. Statement level categories

The statement is our fundamental atom: it is a sentence or a group of sentences in which we can find clearly an argumentation more or less specific (and part of our categories) defended by one or more actor. We identify as a statement also the narration of standpoints or the chronicle of debates that highlight the different standpoints. **The coder must identify the statement/s in the article and underline it/them in an evident way.**

2.1. Source

The source is the person or institution who makes the argument, to whom the argument is attributed. That can happen in a direct quote or indirectly by summarizing a person's or institution's point of view. Unattributeable statements are coded as if the article author is the source.
Source is coded according to Codeplan Source (see the end of this document).
The source is constituted by 4 spaces. The real space of the source code is made by the first three, while the this is a political level distinction that have to be made only in the cases of Sources categories 580 and 590. This political level distinction follows this rule: 1: Federal Level - 2: Cantonal Level - 3: Local level (cities)

2.2. Geographical indication

The geographical indication specifies to what region the statement about the smoking ban is referred to, that is the regional or political entity that is to adopt or not adopt a smoking ban.
Geographical indication is coded according to Codeplan geographical regions (see the end of this document)

2.3. Ban Location

The ban location is the place in which the statement asserts that is taking/will take place a smoking ban. This statement-level variable is coded according to these categories:

01 Public houses (general term for bar, restaurants: when you have to distinguish please use 11 - 12)
02 Hotels
03 Vehicles of public transportation (trains, buses, etc.)
04 Other facilities of public transportation (stations, waiting rooms)

05 Buildings and offices of public administration

06 Public recreational areas (sports facilities, public parks, theathers, cinema etc)

07 Private transportation means (cars)

08 Shops

09 Workplaces in general, other than mentioned above

10 Unspecified

11 Bar (tea-rooms too)

12 Restaurant (Osteria – Bistrò also)

13 Disco club – Night club

14 Other (specify the different places at the bottom of the page)

15 hospitals

16 Schools

2.4. Arguments

The arguments are structured into two groups, for the ban and against the ban. The coder is to chose the most appropriate, but will have the chance to code the tendency separately. For instance, the argument that social relations between smokers and non-smokers will improve is to be coded as Argument 13: Better social relations between smokers and non-smokers and Tendency 1: Pro ban, because the argument is approved, held in the way the category is formulated (this is the normal case we can see in our examples and below in example1).

> Example1:*"Già in Quattro paesi europei (Italia, Malta, Irlanda e Finlandia) e in diversi stati federali Usa sono in vigore leggi a tutela dei posti di lavoro senza fumo. E dal primo giugno, osserva Polli, 'anche in Svezia la salute della popolazione avrà la priorità sugli interessi economici dell'industria del tabacco'"*. This first example is the most normal one, we have a statement that has argument 34 Good experiences in other countries with smoking bans, unspecified and its normal tendency 1: Pro ban.

An argument holding that social relations will not improve (which is different from the argument that relations will deteriorate) will be coded also as Argument 13, but Tendency 2: Against the ban (you can see this kind of event in example2 below).

> Example2: „*E' impossibile quantificare il costo globale per crare una sala fumatori ma vorrei sottolineare che lo spirito della legge é esattamente l'opposto, cioé quello di vietare completamente il fumo nei bar e ristoranti ticinesi. Poi, se un pubblico esercizio ha lo spazio e*

l'esigenza di creare un locale fumatori, deve fare un certo investimento." As we can see in this example the argument is the 52: High investment costs for bars etc. but the tendency is the 1: Pro ban. Claudio Belloli, the author of this statement, is in fact one of the most important people fighting for the ban.

The argument that relationships will be damaged, however, is to be coded as Argument 43 Worse social relations between smokers and non-smokers and Tendency 2: Against the ban (see below example3).

Example3: *"Costerà caro il permesso di fumare nei bar ticinesi. Una fattura salata, di 25 milioni di franchi per realizzare una sala fumatori indipendente e ben aerata nei bar, ristoranti, snack bar, discoteche e birrerie sparsi in tutto il cantone".* The argument of this example is the same of example2, but in this case it is used with its normal tendency, that we repeat in the corresponding field as 2: against the ban.

Arguments for the ban

09 other specific argument for the ban

This category is coded when a sourse is quoted as coming out for the ban, or said to be in favor with any specific argument or reason not included in our arguments

Example: *"donner un bon exemple aux enfants"*

10 General statement favoring the ban

This category is coded when a source is quoted as coming out for the ban, or is said to be in favor, without any specific argument or reason being mentioned

<u>Moral/political arguments</u>

11 Legal protection of non-smokers' rights is called for

All arguments that indicate non-smokers rights to breathe clean air, not to be annoyed or harassed by smoke, need to be protected by law, also that their wish for smoke-free air needs to be protected. Code only when it is explicit that rights or legitimate needs and the necessity to protect them by law are mentioned.

Example: *„l'associazione infatti <<rispetta la libertà di scelta di ognuno allorquando però non pregiudichi la libertà di coloro che non desiderano fumare passivamente>>"*

12 Smoking ban will reduce molestation, harassment of non-smokers by smoke

All arguments that mention that a smoking ban will de facto reduce harassment for non-smokers, respect their wishes.

Example: *„Ebbene, io ritengo che faccia parte della categoria degli astensionisti anche chi, becnchè infastidito dal fumo di sigaretta negli esercizi pubblici (specie dove si mangia), tace e non reclama il suo diritto sacrosanto di essere li senza essere costretto a resprirare aria piena di fumo, per lamentarsi poi in privato quando a casa propria si rende conto che ha gli occhi irritati e puzza dalla testa ai piedi (puzzano i capelli, i vestiti e persino la biancheria intima)"*

13 Better social relations between smokers and non-smokers

Less conflict, less tension, less strife between the two groups because of ban on smoking

14 Ban is just because non-smokers are in the majority

All arguments that support the ban because there are more non-smokers than smokers

> Example: *„Nel settore alberghiero e della ristorazione tre dipendenti su quattro vedono di buon occhio ambienti in cui sia proibito fumare"*

15 Ban is justified because majority wants it

All statements that hold that public opinion, the Ticinese population, the Swiss population at large favors the ban

37 Pedagogic role for future generations

All statements that hold that the Ticinese population has to accept and follow the smoking ban in order to set a good example to young people and children

<u>Health arguments</u>

16 General reduction of passive smoking

All arguments that mention that passive smoking will be reduced by the ban, that this is beneficial for non-smokers' or public health. References to public health without explicit mention that non-smokers are meant are coded under 20.

> Example: *"Sulla relazione significativa tra fumo passive e tumore del polmone oggi però non ci sono dubbi." "Questa relazione è anche ben accertata per le malattie cardiovascolari, il ritardo di crescita intrauterina, il sottopeso al momento della nascita, la morte improvvisa del neonato, le infezioni delle vie respiratorie per il bambino giovane, l'aumento della frequenza e delle crisi per il bambino asmatico"*

17 Reduction of passive smoking of people who work in bars, restaurants, etc.

All arguments that mention that passive smoking of people who work in places where people smokes will be reduced by the ban, that this is beneficial to these people's health.

> Example: *"Da un sondaggio condotto dall'organizzazione di categoria Hotel&Gastro Union risulta che molte persone che operano nella ristorazione chiedono il divieto di*

fumo rifacendosi alla legge che obbliga I datori di lavoro a proteggere il personale dal fumo passivo"

18 Reduction of passive smoking of children

All arguments that mention that passive smoking of children will be reduced by the ban, that this is beneficial to children

19 Reduction of smoking beneficial to smokers' health

All arguments that hold that the ban will reduce smoking, or the number of people who smoke, and thus be beneficial to their health, or to public health. References to public health without explicit mention that smokers are meant are coded under 19.

20 Unspecified references to improvement of public health

All statements that mention health benefits and cannot be placed in any of the above categories

<u>Economic arguments</u>

31 Financial gains

All arguments that hold that bars, restaurants and all other kind of businesses will win customers, raise their revenue, increase their profits as a consequence of the ban

32 Financial benefits for health system

All arguments that hold that the health system will save money as a consequence of an improvement in public health caused by the ban

33 Expectation of high compliance

All arguments founded on statements that mention the expectation of high compliance with the law

34 Good experiences in other countries with smoking bans, unspecified

All arguments that mention good experiences in other countries with a ban on smoking in public places. Specified statements (e.g. on positive health consequences of the introduction of the ban in other contries) are coded as if this were an expectation of what will happen in Ticino, or any other region (canton, country) the argument refers to. A statement of high

compliance with the ban in Italy is coded as 33, a general mention of good experience with the ban in Italy is coded as 34

> Example: *"Già in Quattro paesi europei (Italia, Malta, Irlanda e Finlandia) e in diversi stati federali Usa sono in vigour leggi a tutela dei posti di lavoro senza fumo. E dal primo giugno, osserva Polli, 'anche in Svezia la salute della popolazione avrà la priorità sugli interessi economici dell'industria del tabacco'"*

35 Good experience with earlier regulation in Switzerland
All statements that mention good experiences with respective regulations in Switzerland, especially those that present the ban on smoking as a consequential continuation of tobacco prevention policies in the country

36 Avant-garde role
All arguments that hold that the canton/country (the entity discussing the ban) could play the role of avant-garde, the first to promote regulations that others will adopt

Arguments against the ban

60 Other specific argument against the ban

This category is coded when a source is quoted as coming out against the ban, or is said to be in opposition, with any specific argument or reason not included in our arguments

40 General statement opposing the ban

This category is coded when a source is quoted as coming out against the ban, or is said to be in opposition, without any specific argument or reason being mentioned.

Moral/political arguments

41 Freedom of smokers is illegitimately infringed

All arguments that indicate that the ban illegitimately restricts the freedom of smokers, that the state has no right to do this, that the state's attempts at regulation have to be opposed, that health problems cannot be solved by such regulation

Example: „*C'è chi plaude alle nuove misure contro il fumo passivo e chi le ritiene, invece, una limitazione alla libertà individuale*"

42 Smoking ban will increase molestation, harassment

All arguments that mention that a smoking ban will increase harassment, result in nuisance, for instance in more noise by people smoking outside of the place where smoking is banned

43 Worse social relations between smokers and non-smokers

More conflict, more tension, more strife between the two groups because of ban on smoking

44 Ban will discriminate smokers, stigmatize smokers

All arguments that oppose the ban because it discriminates against smokers, stigmatizes them. Also coded if ban is opposed on grounds of minority protection.

Health arguments

45 Other solutions for reducing passive smoking

All arguments that hold that there can be other, less radical solutions than the ban to reduce passive smoking, all groups taken together.

Example: *„Un divieto assoluto di fumo negli esercizi pubblici ticinesi non è accettabile. <…> Sono già stati presi probbedimenti per diminuire l'esposizione al fumo passivo, dov'era possibile e auspicato dalla clientela, istallando sistemi di ventilazione più efficaci e introducendo spazi riservati ai non fumatori"*

<u>Economic arguments</u>

51 Financial losses

All arguments that hold that bars, restaurants and all other kind of public houses, all other businesses will lose customers, their revenue will sink, their profits decrease as a consequence of the ban.

Example:*"Nella sua relazione il presidente dalla GastroLago Maggiore Giuseppe Lupi ha disegnato un quadro a tinte fosche per I soci, con le nuove leggi (meno alcool e fumo), le difficoltà economiche e la chiusura di alberghi."*

52 High investment costs for places who want to adapt the architecture

All arguments that hold that owners of bars, restaurants etc, all other institutions affected by the ban will have high costs for rebuilding their places to accommodate smokers in special rooms

Example: *„Costerà caro il permesso di fumare nei bar ticinesi. Una fattura salata, di 25 milioni di franchi per realizzare una sala fumatori indipendente e ben aerata nei bar, ristoranti, snack bar, discoteche e birrerie sparsi in tutto il cantone"*

53 Expectation of low compliance

All arguments founded on statements that mention the expectation of low compliance with the law

54 Bad experiences in other countries with smoking bans, unspecified

All arguments that mention bad experiences, failed hopes in other countries with a ban on smoking in public places. Specified statements (e.g. on negative economic consequences of

the introduction of the ban in other contries) are coded as if this were an expectation of what will happen in the geographic area the argument refers to.

> Example:*"Ha ricordato inoltre che solo in poche nazioni europee (Italia e Irlanda) si è giunti a tanto e in nessun cantone Svizzero. Anzi. "*

55 Bad experience with earlier regulation in Switzerland
All statements that mention bad experiences with respective regulations in Switzerland, especially with the 1994 regulation and the assumptions that it did not change much

> Example: *„La legge sugli esercizi pubblici del 1994, però, è chiara: un terzo dei tavoli deve essere riservato ai non fumatori. Ma non sempre e dappertutto la legge è legge, come ha evidenziato il nostro tour in una trentina di locali pubblici, snack bar e ristoranti ticinesi."*

56 Cantonal vs. federal competence, nation-state vs. international
All arguments that hold it would be appropriate or preferable not to regulate smoking in public places in the canton, but rather wait for a nation-wide regulation from the federal government. The category is also chosen for arguments that a nation-wide regulation should wait for a EU-level regulation, or any other international one.

2.5. Tendency
Here it is to be coded to which use (pro ban or against ban) an argument is used. An argument pro ban that is merely stated, affirmed, put forth is always coded as pro ban. If it is, however, refuted, contradicted, if doubt is cast over it, it's validity questioned, it is coded as against the ban. Arguments against the ban are treated accordingly. The combination of coding of argument and tendency has to mirror the source's intention.

Types of coding tendency

	Argument for the ban	Argument against the ban
Argument is affirmed	PRO	AGAINST
Argument is refuted, contradicted, rejected	AGAINST	PRO

Coding
01 PRO ban
02 AGAINST ban

Codeplan Medium

Daily newspapers	11	Basler Zeitung
	12	Berner Zeitung
	13	Blick
	14	Giornale del Popolo
	15	Corriere del Ticino
	16	La Regione
	17	Mittelland Zeitungen, MLZ
	18	Vingtquatre Heures
	19	Neue Zürcher Zeitung (NZZ)
	20	Tribune de Genève
	21	Tagesanzeiger
	22	Le Nouvelliste
	23	Le Temps
	24	Matin Semaine
Sunday newspapers	31	Il Caffè
	32	Sonntagsblick
	33	Matin dimanche

Codeplan Sources

110 Journalists

210 Medical doctors, medical experts

310 Institutions of health information, desease prevention, health care (ISPA, ASNF, Lega polmonare ticinese, Lega „Vita e Salute" etc.)

330 Institutions of public transportation

350 Associations or commissions that defend the rights of smokers

390 Other Institutions and Association/ Unspecified Institutions and Associations (school, universities, theaters, companies like Novartis and other economical companies, ecological not political associations etc)

410 Swiss Gastronomic Associations

      421 Ticino Gastronomic Associations

      422 Aargau Gastronomic Associations

      423 Appenzellerland Gastronomic Associations

      424 Appenzellerland Gastronomic Associations

      425 Bern Gastronomic Associations

      426 Baselland Gastronomic Associations

      427 Basel-Stadt Gastronomic Associations

      428 Fribourg Gastronomic Associations

      429 Genève Gastronomic Associations

      430 Glarnerland Gastronomic Associations

      431 Graubünden Gastronomic Associations

      432 Jura Gastronomic Associations

      433 Luzern Gastronomic Associations

      434 Neuchâtel Gastronomic Associations

      435 Nidwalden Gastronomic Associations

      436 Obwalden Gastronomic Associations

      437 St. Gallen Gastronomic Associations

      438 Schaffhausen Gastronomic Associations

      439 Solothurn Gastronomic Associations

440 Schwyz Gastronomic Associations

441 Thurgau Gastronomic Associations

442 Uri Gastronomic Associations

443 Vaud Gastronomic Associations

444 Valais Gastronomic Associations

445 Zug Gastronomic Associations

446 Zürich Gastronomic Associations

450 Associazione ticinese dei bar (Patrick Chappuis: President)

460 Other gastronomic associations, clubs

510 PPD – Partito Popolare Democratico;

    PDC (PCD) _ Parti démocrate chrétien;

    CVP _ Christlichdemokratische Volkspartei

520 PS – Partito Socialista;

    PS _ Parti socialiste;

    SP _ Sozialdemokratische Partei = LEFT

530 PLR – Partito Liberale Radicale;

    PRD _ Parti radical-démocratique

    FDP _ Freisinnig-Demokratische Partei

540 Lega dei ticinesi = RIGHT

550 UDC _ Unione Democratica di Centro;

    UDC _ Union Démocratique du Centre;

    SVP _ Schweizerische Volkspartei = RIGHT

560 Green party

570 PEV_ Partito evangelico swizzero

    PEV_ Parti évangélique

    EVP_ Evangelische Volkspartei der Schweiz

580 Gran Consiglio (legislativo) – here all the different commissions like Legislativa

    Assemblée Fédérale (Grand Conseil et Conseil des Etats) – le législatif

    Parlament (Nationalrat und Ständerat) – das Legislative

590 Consiglio di Stato (esecutivo)

    Conseil fédéral (pouvoir exécutif fédéral)

    Bundesrat (Exekutive des Bundes)

591 Department for Health and Society

592 Department of Education, Culture and Sport

593 Department for the Territory

594 Department for Finance and Economy

595 Department of Institutions

600 UFSP Ufficio Federale della Sanità pubblica

    OFSP Office fédérale de la santé publique

    BAG Bundesamt für Gesundheit

610 Other Swiss politicians

These are general cathegories for all the countries, not only for Switzerland

710 Regular People

720 Tourists

730 Bar owners without mentioned affiliation to any of the associations

740 Restaurant owners (without affiliation)

750 Hotel owners (without affiliation)

760 Police and other Authorities

770 Workers of Restaurants, bars and hotels

810 Statistical studies and companies

820 Tobacco industry and trade

830 Technological companies of air conditioning

840 Tobacco farmers

This distinction refers to all the political organs of other countries

901 Politicians in other countries

902 Political Institutions in other countries

Codeplan geographical indication

01 Ticino (TI)

02 Appenzello Esterno (AR)

03 Appenzello Interno (AI)

04 Argovia (AG)

05 Basilea Campagna (BL)

06 Basilea Città (BS)

07 Berna (BE)

08 Friburgo (FR)

09 Ginevra (GE)

10 Giura (JU)

11 Glarona (GL)

12 Grigioni (GR)

13 Lucerna (LU)

14 Neuchâtel (NE)

15 Nidvaldo (NW)

16 Obvaldo (OW)

17 San Gallo (SG)

18 Sciaffusa (SH)

19 Soletta (SO)

20 Svitto (SZ)

21 Turgovia (TG)

22 Uri (UR)

23 Vallese (VS)

24 Vaud (VD)

25 Zugo (ZG)

26 Zurigo (ZH)

28 Single cities, regions smaller than cantons

29 Confederation

31 Any other single European country, or part of a country

32 European Union

33 German Swiss linguistic part

34 French Swiss linguistic part

41 Any other single country outside Europe, or part of a country

91 Other, unspecified

Universitá della Svizzera italiana * HCC Lab
Swiss newspaper coverage of smoking ban in Tessin - Codesheet

I. Article level |__|__|__|__| |__| |__|__| |__| |__|__|
                             |__|__| |__|__|

categories   Ident-No.   Coder   Medium   Auth   Year

                  Month   Day
                  |__| |__|
                  Section   Type

II. Statement level categories

01 |__|__|__| |__|__| |__|__| |__|__| |__|__|
    Source   Geo. Ind. Ban Loc. Arg.   Tend.
02 |__|__|__| |__|__| |__|__| |__|__| |__|__|
03 |__|__|__| |__|__| |__|__| |__|__| |__|__|
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27 |__|__|__| |__|__| |__|__| |__|__| |__|__|
28 |__|__|__| |__|__| |__|__| |__|__| |__|__|
29 |__|__|__| |__|__| |__|__| |__|__| |__|__|
30 |__|__|__| |__|__| |__|__| |__|__| |__|__|

Table 1. Frequency of Health argument group

Health arguments Group	Italian Swiss % (n=567)	French Swiss % (n=910)	German Swiss % (n=1494)	Swiss % (n=2862)
General reduction of passive smoking	**42**	34	**39**	38
Unspecified references to improvement of public health	27	**45**	31	34
Reduction of passive smoking of people who works in bars etc	19	11	18	16
Reduction of smoking beneficial to smokers' health	7	8	8	8
Reduction of passive smoking of children	6	1	3	2
Total	100	100	100	100

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

Table 2. Frequency of Legal argument group

Legal arguments Group	Italian Swiss % (n=234)	French Swiss % (n=382)	German Swiss % (n=803)	Swiss % (n=1370)
Other solutions for reducing passive smoking	65	73	46	56
Expectation of high compliance	6	10	20	15
Avant-Garde role	18	3	16	13
Cantonal vs. Federal competence	10	7	13	11
Expectation of low compliance	1	7	5	5
Total	100	100	100	100

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

Table 3. Frequency of Economic argument group

Economic arguments Group	Italian Swiss % (n=282)	French Swiss % (n=250)	German Swiss % (n=750)	Swiss % (n=1212)
Financial losses	51	57	58	57
Financial gains	30	18	23	23
High investment costs for places who wants to adapt	8	9	14	12
Financial benefits for health system	11	16	4	8
Total	100	100	100	100

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

Table 4. Frequency of Experience argument group

Experience arguments Group	Italian Swiss % (n=144)	French Swiss % (n=113)	German Swiss % (n=254)	Swiss % (n=458)
Good experiences in other countries	88	77	69	74
Good experiences with earlier regulation in Swiss	1	19	22	17
Bad experience with earlier regulation in Switzerland	11	1	6	6
Bad experiences in other countries	4	3	3	3
Total	100	100	100	100

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

Table 5. Arguments frequency by linguistic regions

	Italian Swiss (n=2857) %	French Swiss (n=4277) %	German Swiss (n=11861) %	Swiss (n=18995) %
General statement favouring the ban	35	37	33	35
General statement opposing the ban	9	5	8	8
Freedom of smokers is illegitimately infringed	**6**	**9**	**5**	6
General reduction of passive smoking	**7**	**7**	**5**	6
Unspecified references to improvement of public health	**4**	**10**	**4**	5
Other specific argument for the ban	3	1	6	4
Legal protection of non-smokers rights	3	2	**5**	4
Other solutions for reducing passive smoking	**4**	**6**	3	4
Financial losses	**4**	3	**4**	4
Other specific argument against the ban	1	1	5	4
Reduction of passive smoking of people who works in bars etc	3	2	2	2
Smoking ban will reduce molestation, harassment	3	1	3	2
Ban is justified because majority wants it	**4**	2	1	2
Good experiences in other countries	3	2	1	2
Ban just because non-smokers are the majority	0	1	3	2
Financial gains	2	1	1	1
Ban will discriminate smokers, stigmatize smokers	0	1	2	1
Reduction of smoking beneficial to smokers' health	1	2	1	1
Expectation of high compliance	0	1	1	1
Avant-Garde role	1	0	1	1
Pedagogic role for future generations	0	0	1	1
High investment costs for places who wants to adapt	1	1	1	1
Cantonal vs. Federal competence	1	1	1	1
Financial benefits for health system	1	1	0	0
Reduction of passive smoking of children	1	0	0	0
Good experiences with earlier regulation in Swiss	0	1	0	0
Expectation of low compliance	0	1	0	0
Smoking ban will increase molestation, harassment	0	0	0	0

	Italian CH	French CH	German CH	Swiss
Better social relations between smokers and non smokers	0	0	0	0
Worse social relations between smokers and non-smokers	0	0	0	0
Bad experience with earlier regulation in Switzerland	0	0	0	0
Ticino is an example to follow	1	0	0	0
Bad experiences in other countries	0	0	0	0
Total	100	100	100	100

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

Table 6. Players of the Personal Interests' Group and their presence through the linguistic regions newspapers' coverage

Personal Interests	Italian CH	French CH	German CH	Swiss
	%	%	%	%
	(n=947)	(n=1143)	(n=2599)	(n=4253)
Regular People	96	97	98	98
Associations or commissions that defend the rights of smoker	2	1	0	1
Workers of Restaurants, bars and hotels	1	1	1	1
Other Institutions and Associations/Unspecified Institutions	0	0	1	0
Tourists	0	0	0	0
	100	100	100	100

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

Table 7. Players of the Economic Interests' Group and their presence through the linguistic regions newspapers' coverage

Economic Interests	Italian CH % (n=611)	French CH % (n=664)	German CH % (n=2211)	Swiss % (n=3369)
Institution of public transportation	6	20	18	17
Bar owners without mentioned affiliation	14	15	17	16
Restaurant owners without affiliation	7	8	19	15
Swiss Gastronomic Associations	14	13	15	14
Ticino Gastronomic Associations	31	8	2	8
Solothurn Gastronomic Associations	0	0	8	5
Tobacco industry and trade	4	5	4	4
Other gastronomic associations, clubs	3	3	3	3
Other Institutions and associations/Unspecified Institutions	3	6	1	2
Bern Gastronomic Associations	0	0	3	2
Basle-Stadt Gastronomic Associations	0	0	3	2
Genève gastronomic Associations	0	11	0	2
Associazione Ticinese dei bar	14	0	0	2
Aargau Gastronomic Associations	0	0	1	1
Baselland Gastronomic Associations	0	0	1	1
Luzern Gastronomic Associations	0	0	1	1
Vaud Gastronomic Associations	1	6	0	1
Zürich Gastronomic Associations	0	0	1	1
Hotel owners without affiliation	3	1	1	1
Fribourg Gastronomic Associations	0	0	0	0
Glarnerland Gastronomic Associations	0	0	0	0
Graubünden Gastronomic Associations	0	0	0	0
Neuchatel Gastronomic Associations	0	0	0	0
Obwalden Gastronomic Associations	0	0	0	0
Schwyz Gastronomic Associations	0	0	0	0
Thurgau Gastronomic Associations	0	0	0	0
Valais Gastronomic Associations	0	2	0	0
Zug Gastronomic Associations	0	0	0	0
Technological companies of air	1	0	0	0

conditioning				
Tabacco farmers	0	0	0	0
	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

Table 8. Players of the Reportage Interests' Group and their presence through the linguistic regions newspapers' coverage

Reportage Interests	Italian CH % (n=193)	French CH % (n=265)	German CH % (n=807)	Swiss % (n=1205)
Journalist	61	83	88	84
Statistical studies and companies	39	17	12	16
	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

Table 9. Players of the Various Interests' Group and their presence through the linguistic regions newspapers' coverage

Various Interests	Italian CH % (n=128)	French CH % (n=226)	German CH % (n=613)	Swiss % (n=967)
Other Institutions and Associations/Unspecidied Institutions	100	100	100	100
	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

Graph 1. Presence of the Sociality interests' group into the discussion about smoking ban divided into the tendency in favor and against the ban
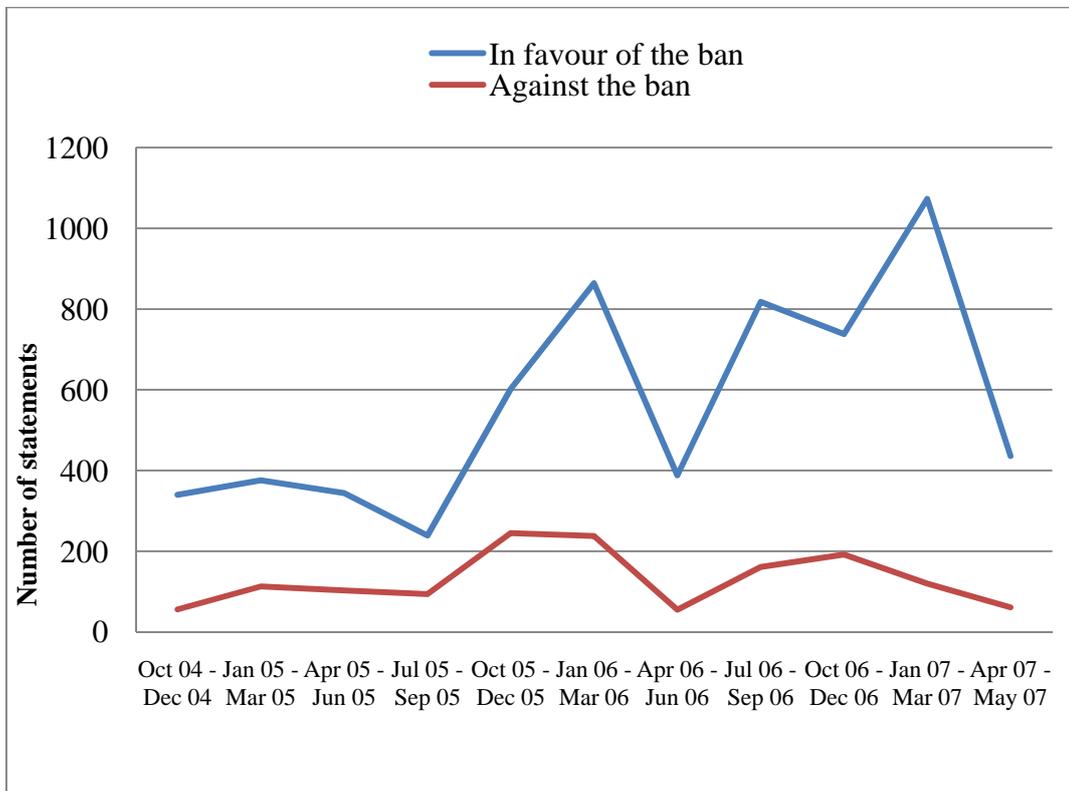
Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

Graph 2. Presence of the Personal interests' group into the discussion about smoking ban divided into the tendency in favor and against the ban
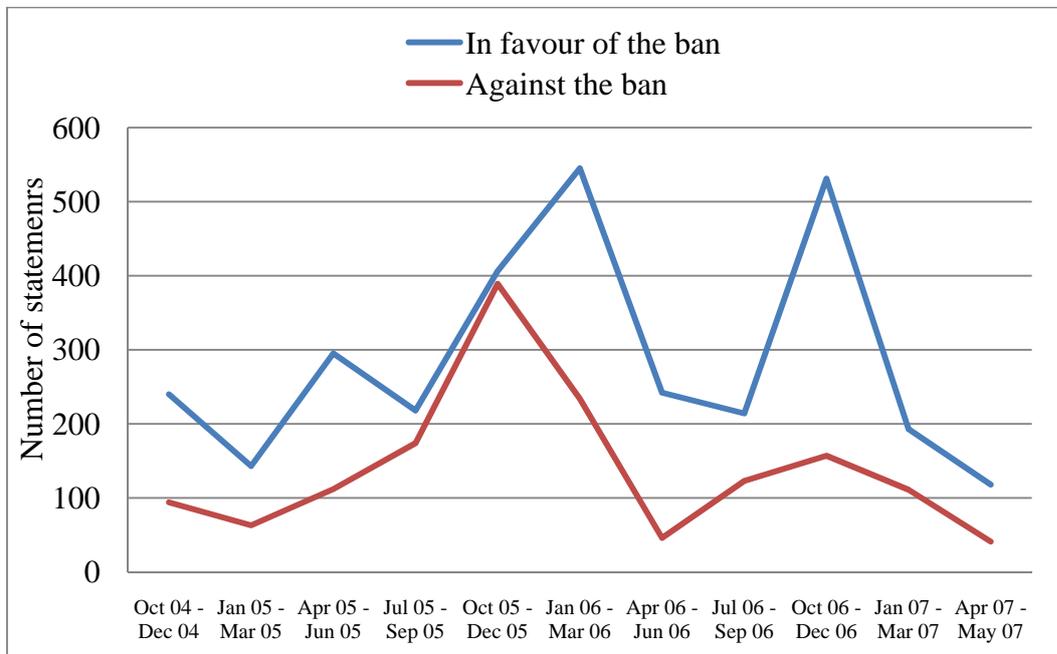
Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

Graph 3. Presence of the Reportage interests' group into the discussion about smoking ban divided into the tendency in favor and against the ban
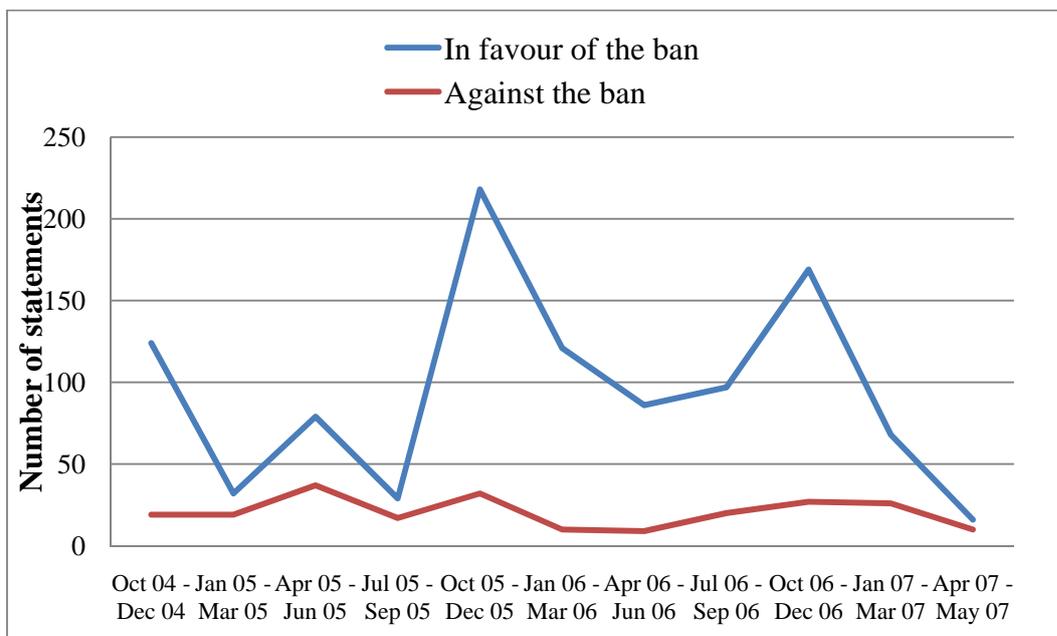
Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

Graph 4. *Financial gains* **argument in Swiss newspapers' coverage distinguished by tendency between October 2004 and May 2006**

Financial gains

Legend:
- In favour of the ban
- Against the ban

X-axis categories:
Oct 04 - Dec 04, Jan 05 - Mar 05, Apr 05 - Jun 05, Jul 05 - Sep 05, Oct 05 -Dec 05, Jan 06 - Mar 06, Apr 06 - Jun 06, Jul 06 - Sep 06, Oct 06 - Dec 06, Jan 07 - Mar 07, Apr 07 - May 07
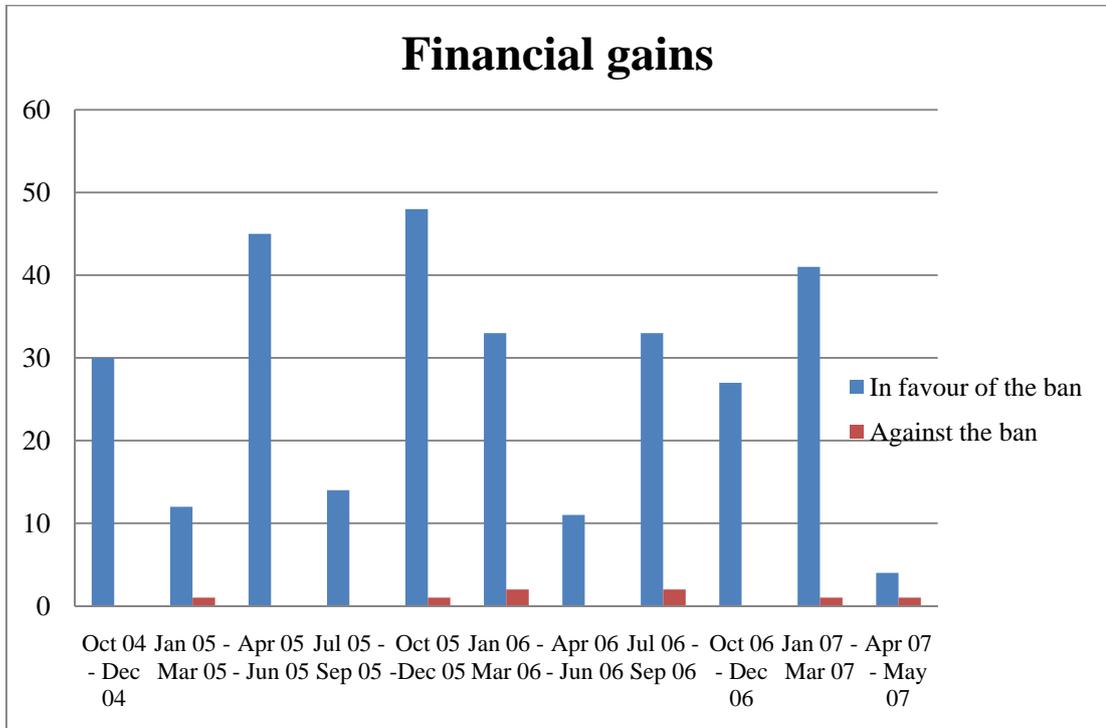
Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

Graph 5. *High investments' costs for places who wants to adapt* **argument in Swiss newspapers'**
coverage distinguished by tendency between October 2004 and May 2006
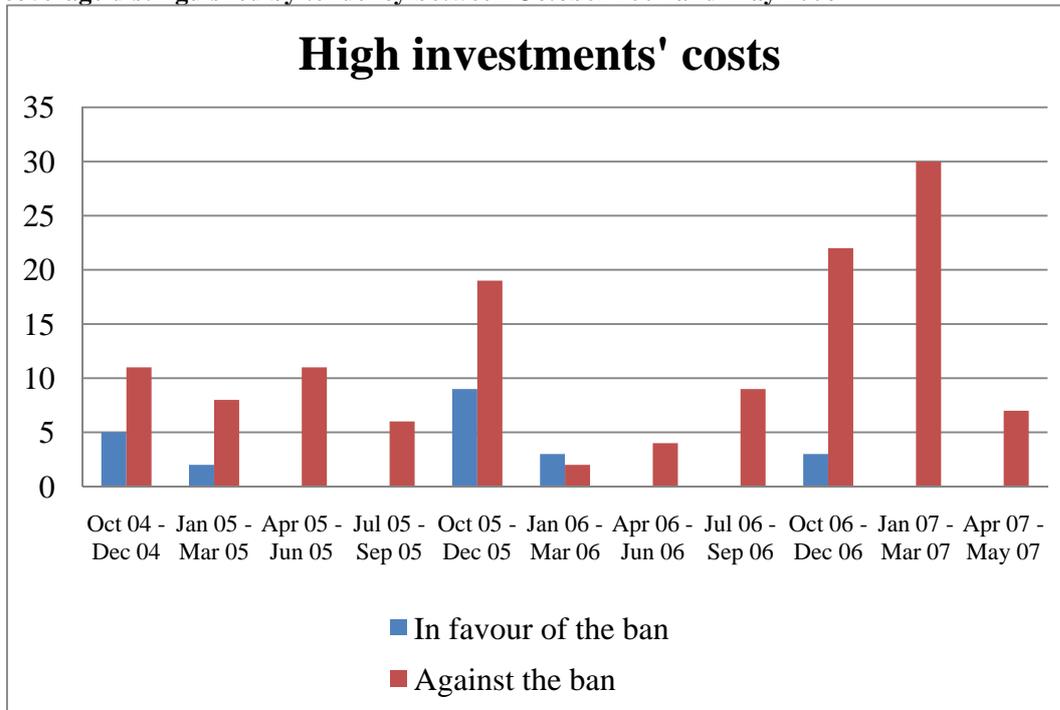
Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

Graph 6. *Financial benefits* **argument in Swiss newspapers' coverage distinguished by tendency between October 2004 and May 2006**

Financial benefits for health system
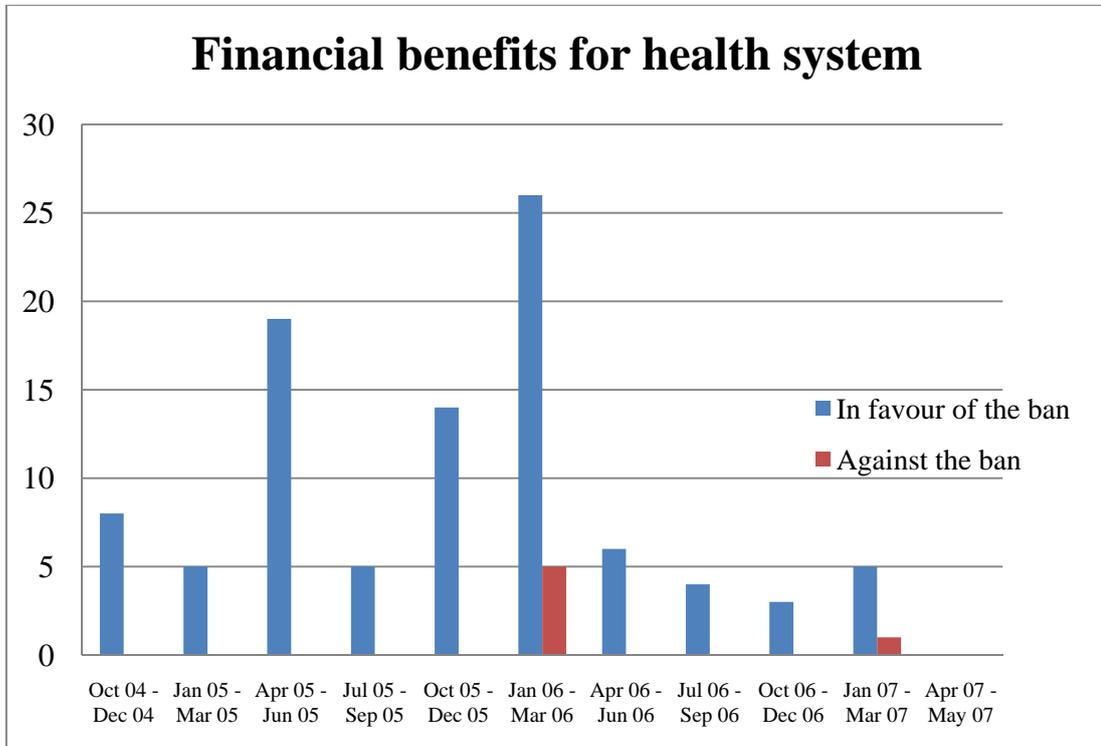
Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

Table 10. *High investments' costs for places who wants to adapt* **argument trend in the three swiss linguistic regions newspapers' coverage between October 2004 and May 2007**

	Italian Swiss % (n=23)	French Swiss % (n=22)	German Swiss % (n=106)	Swiss % (n=146)
Oct 04 - Dec 04	**30**		8	10
Jan 05 - Mar 05	4	**23**	4	7
Apr 05 - Jun 05	13	14	5	7
Jul 05 - Sep 05	4	5	4	3
Oct 05 -Dec 05	**30**	**41**	11	**18**
Jan 06 - Mar 06		14	2	3
Apr 06 - Jun 06	9	5	1	3
Jul 06 - Sep 06	9		7	6
Oct 06 - Dec 06			**24**	**17**
Jan 07 - Mar 07		0	**28**	**21**
Apr 07 - May 07			7	5
	100	100	100	100

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

Table 11. *Financial benefits* **argument trend in the three swiss linguistic regions newspapers' coverage between October 2004 and May 2007**

	Italian Swiss % (n=30)	French Swiss % (n=40)	German Swiss % (n=31)	Swiss % (n=91)
Oct 04 - Dec 04	3	13	6	8
Jan 05 - Mar 05	3	3	10	5
Apr 05 - Jun 05		**43**	6	**21**
Jul 05 - Sep 05		3	13	5
Oct 05 -Dec 05	3	**25**	10	15
Jan 06 - Mar 06	**67**	5	**29**	**24**
Apr 06 - Jun 06	7	8	3	7
Jul 06 - Sep 06	**13**			4
Oct 06 - Dec 06		3	6	3
Jan 07 - Mar 07	3		**16**	7
Apr 07 - May 07				
	100	100	100	100

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

Table 12. Ticino newspaper main arguments divided by tendencies

	General reduction of passive smoking		Freedom of smokers is illegitimately infringed		Other solutions for reducing passive smoking		Ban is justified because majority wants it	
	Favor	Against	Favor	Against	Favor	Against	Favor	Against
Oct 04 - Dec 04	**19**		3	13	4	14	6	
Jan 05 - Mar 05	10	1	3	4	7	**19**	7	1
Apr 05 - Jun 05	24		5	**15**	7	**23**	15	6
Jul 05 - Sep 05	4	1		6	1	**12**	1	
Oct 05 -Dec 05	**33**	2	**10**	32	2	**25**	**22**	1
Jan 06 - Mar 06	**71**	1	**33**	68	4	**26**	**58**	2
Apr 06 - Jun 06	5		1			2	6	
Jul 06 - Sep 06	16			2		1		
Oct 06 - Dec 06	7		1	1				
Jan 07 - Mar 07	**35**		1	3		2	**17**	
Apr 07 - May 07	8		1	2		4		
Sum	232	5	58	146	25	128	132	10
Average	21,1	0,5	5,3	13,3	2,3	11,6	12	0,9

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

Table 13. French swiss newspaper main arguments divided by tendencies

	Unspecified references to improvement of public health		Freedom of smokers is illegitimately infringed		General reduction of passive smoking		Other solutions for reducing passive smoking	
	Favor	Against	Favor	Against	Favor	Against	Favor	Against
Oct 04 - Dec 04	14	0	2	16	27	-	**17**	6
Jan 05 - Mar 05	20	3	1	14	21	-	**12**	8
Apr 05 - Jun 05	**65**	4	**14**	7	26	-	**15**	**42**
Jul 05 - Sep 05	**35**	0	**12**	**31**	19	-	**14**	**21**
Oct 05 -Dec 05	**77**	**92**	**61**	**115**	**41**	-	**18**	**61**
Jan 06 - Mar 06	**37**	**15**	**23**	**43**	22	-	**21**	**39**
Apr 06 - Jun 06	5	0	1	6	**30**	-	0	1
Jul 06 - Sep 06	4	0	2	7	13	-	0	0
Oct 06 - Dec 06	2	0	1	1	**29**	-	2	1
Jan 07 - Mar 07	22	0	4	9	**77**	-	0	0
Apr 07 - May 07	13	0	1	0	8	-	0	0
Sum	294	114	122	249	313	-	99	179
Average	26,7	10,4	11,1	22,6	28,4		11	16,3

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

Table 14. German swiss newspaper main arguments divided by tendencies

	Legal protection of non-smokers rights		General reduction of passive smoking		Freedom of smokers is illegitimately infringed		Unspecified references to improvement of public health	
	Favor	Against	Favor	Against	Favor	Against	Favor	Against
Oct 04 - Dec 04	44	1	**59**	0	8	38	37	1
Jan 05 - Mar 05	33	4	13	0	6	44	34	2
Apr 05 - Jun 05	**80**	5	38	0	3	43	38	2
Jul 05 - Sep 05	31	8	41	1	1	40	28	2
Oct 05 -Dec 05	**85**	1	**56**	3	7	**56**	**52**	**7**
Jan 06 - Mar 06	**76**	1	**73**	6	**19**	**86**	30	**5**
Apr 06 - Jun 06	14	2	25	1	4	12	39	1
Jul 06 - Sep 06	51	6	36	0	**10**	39	27	5
Oct 06 - Dec 06	**122**	2	**75**	0	**15**	**65**	**82**	3
Jan 07 - Mar 07	33	1	**106**	2	5	**55**	37	**6**
Apr 07 - May 07	1	0	47	1	3	13	20	**6**
Sum	570	31	569	14	81	491	424	40
Average	51,8	2,8	51,7	1,3	7,3	44,6	38,5	3,6

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

Table 15. Actors of the Sociality Interests' Group and their presence through the linguistic regions newspapers' coverage

Sociality Interests	Italian CH % (n=1532)	French CH % (n=1213)	German CH % (n=4911)	Swiss % (n=7517)
Gran Consiglio	16	23	34	28
Other Swiss Politicians	15	15	16	16
Political Institutions in other countries	10	20	13	14
Consiglio di Stato	19	17	8	11
PPD	7	2	3	4
PLR	6	2	4	4
UDC	3	3	5	4
PS	5	3	2	3
PEV	1	3	4	3
Politicians in other countries		2	3	3
Lega	8	2	1	2
Green Party	2	3	2	2
Department for Health and Society	4	3	2	2
BAG	1	2	2	2
Department for Finance and Economy			1	1
Department of Institutions	3			1
Other Institutions and Associations/Unspecidied Institutions Department of Education, Culture and Sport				
Department for the Territori				
Police and other Authorities				
	100	100	100	100

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

Table 16. Arguments used by the different Interests' Groups in the two tendencies in favor and against the ban

	Generic statements		Freedom arguments		Health arguments		Economic arguments		Social arguments		Legal arguments		Experience arguments	
	F	A	F	A	F	A	F	A	F	A	F	A	F	A
Health Interests	8	1	15	1	19	1	13	1	8	1	15		12	
Economic Interests	12	**30**	6	**19**	10	14	**29**	**63**	14	18	**20**	**41**	16	**52**
Sociality Interests	**52**	**40**	**41**	**28**	**37**	10	18	10	**25**	13	**32**	**23**	**22**	14
Personal Interests	17	**21**	**27**	**45**	**23**	**67**	**23**	17	**35**	**57**	16	**28**	**32**	**19**
Reportage Interests	5	3	5	5	7	7	13	5	12	9	13	3	16	14
Various Interests	6	5	6	2	5	1	4	4	6	2	4	4	2	
	7620	2193	1037	923	2741	230	650	632	1495	326	640	779	490	21
	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Source: DIFU Content analysis, Institute of Communication and Health, USI Lugano

APPENDIX CHAPTER 4

Tree representation

13005
A

Freedom

13023
F

Feasibility
Experience
Nuisance
Nuisance
Health Benefits

13028
F

Health riskiness
Feasibility
Health riskiness
Persuasion
Nuisance
Experience
Health riskiness
Health riskiness

13033-13339
F

Feasibility
Health riskiness
Nuisance

13053
A

Economical losses
Prohibitionism
Freedom
Health Benefits

13080
A

Technical alternative
Functionalzty
Freedom
Health Benefits

13113
A

Freedom

13116
F

Health riskiness
Health riskiness
Economical expemses

13119
F

Legal protection
Democracy
Freedom

13122

13146

13163

13172

13202

13207 13208

13212

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Matrix of relations

	Coherence	Democracy	Economical Expenses	Economical Losses	Egoism	Example	Experience	Feasibility	Federal competence	Functionality	Freedom	Health Benefits	Health riskiness	Legal alternative	Legal protection	Nuisance	Persuasion	Prohibitionism	Technical alternative	Tolerance	Trend
Coherence														X							
Democracy		X							X		XX	XX			X		XX				
Economical Expenses		XX									X	X	X		X		X		X		
Economical Losses		X												X	X						
Egoism											X						X				
Example		X																			
Experience				X				X									X				
Feasibility		XX		X			X														1
Federal competence		X						X													
Functionality																					1
Freedom		X												X	X		X	X			
Health Benefits		X					X	X		X	X			X			X				
Health riskiness		XXX X						XXXX			X	X			X	X	X				
Legal alternative																					
Legal protection		XX							X		X										
Nuisance							XX	XXX						XX							
Persuasion																					
Prohibitionism														X							
Technical alternative											X										
Tolerance																			X		
Trend															X						

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APPENDIX CHAPTER 5

	ARGUMENTATIVE ANALYSIS	CONTENT ANALYSIS
13005	Freedom factor	General statement favoring the ban General statement opposing the ban Other solutions for reducing passive smoking
13023	Economical losses Feasibility Experience 2 Nuisance Health benefits	Financial losses Smoking ban will reduce molestation, harassment Good experiences in other countries
13028	4Health riskiness Feasibility Nuisance Persuasion Experience	Unspecified references to improvement of public health Smoking ban will reduce molestation, harassment Good experiences in other countries Freedom of smokers is illegitimately infringed
13033	Feasibility Health riskiness Nuisance	General reduction of passive smoking Reduction of passive smoking of people who works in bars etc Reduction of passive smoking of children Reduction of smoking beneficial to smokers' health Unspecified references to improvement of public health
13053	Economical losses Prohibitionism Freedom factor	General statement favoring the ban Freedom of smokers is illegitimately infringed Financial losses
13080	Technical alternative Health benefits Freedom factor Functionality	General statement favoring the ban Freedom of smokers is illegitimately infringed Other solutions for reducing passive smoking
13113	Freedom factor	General reduction of passive smoking 2 Freedom of smokers is illegitimately infringed 2 General reduction of passive smoking
13116	Health riskiness	3 General statement favoring the ban

		3 General reduction of passive smoking
		3 Reduction of passive smoking of people who works in bars etc
13119	Legal protection Democracy/majority Health riskiness Economical expenses Freedom	Legal protection of non-smokers rights 3 General reduction of passive smoking Financial benefits for health system Ban is justified because majority wants it
13122	Freedom factor 2 Experience factor Health benefits Feasibility	5 General statement favoring the ban Legal protection of non-smokers rights Reduction of passive smoking of people who works in bars etc 2 Financial gains Financial losses Smoking ban will reduce molestation, harassment Ban is justified because majority wants it Avant-Garde role Good experiences in other countries 2 General statement opposing the ban Other solutions for reducing passive smoking
13146	Legal alternative Prohibitionism Freedom factor Economical losses	3 Other solutions for reducing passive smoking
13163	2 Health riskiness Democracy/majority	General statement favoring the ban Reduction of passive smoking of people who works in bars etc Unspecified references to improvement of public health Smoking ban will reduce molestation, harassment General statement opposing the ban
13172	3 Freedom factor 3 Health benefits Health riskiness Democratic factor Example factor Legal protection Nuisance Functionality	6 General statement favoring the ban 2 Legal protection of non-smokers rights 2 Unspecified references to improvement of public health Avant-Garde role General statement opposing the ban Freedom of smokers is illegitimately infringed Ban will discriminate smokers, stigmatize smokers

	Tolerance	
13202	Democratic factor Econominical losses Feasibility	General statement favoring the ban Legal protection of non-smokers rights Reduction of smoking beneficial to smokers' health General statement opposing the ban
13207	Health Benefits	Unspecified references to improvement of public health
13208	2 Freedom factor Legal alternative Prohibitionism Technical altermative Coherence factor	2 Legal protection of non-smokers rights 2 Freedom of smokers is illegitimately infringed 2 Other solutions for reducing passive smoking
13212	Democratic factor Legal protection Feasibility	General statement favoring the ban 2 Legal protection of non-smokers rights 2 Freedom of smokers is illegitimately infringed Unspecified references to improvement of public health Financial losses Ban is justified because majority wants it
13233	Technical alternative Functionality 2 Feasibility	3 Other specific argument for the ban 3 General statement favoring the ban 3 General statement opposing the ban Other solutions for reducing passive smoking
13237	Coherence factor Legal alternative Feasibility Health benefits	General statement opposing the ban Other solutions for reducing passive smoking
13267	Freedom factor	General statement favoring the ban Legal protection of non-smokers rights 2 Freedom of smokers is illegitimately infringed
13269	N.A.	Unspecified references to improvement of public health Financial losses 3 Ban is justified because majority wants it Expectation of high compliance

		Avant-Garde role Good experiences in other countries
13287	Democratic factor Health riskiness Health benefits Example factor Economical expenses	Legal protection of non-smokers rights Financial benefits for health system Smoking ban will reduce molestation, harassment
13302	Persuasion factor Health riskiness Trend factor Nuisance factor	Freedom of smokers is illegitimately infringed
13305	Persuasion factor Freedom factor Health benefits 2 Democratic factor Health riskiness Economical expenses Egoism	Worse social relations between smokers and non-smokers Other solutions for reducing passive smoking
13317	2 Democratic factor Health riskiness Federal competence Legal protection	1General statement favoring the ban General reduction of passive smoking Reduction of passive smoking of people who works in bars etc Unspecified references to improvement of public health 2 Ban is justified because majority wants it Avant-Garde role
13336	Health riskiness 3 Feasibility Freedom factor Federal competence	5 General statement favoring the ban 2 General reduction of passive smoking Cantonal vs. Federal competence General statement opposing the ban Financial losses 2 Other solutions for reducing passive smoking
13338	Feasibility Legal alternative Health riskiness	6 General statement favoring the ban 4 Other solutions for reducing passive smoking Bad experiences in other countries 3 General statement opposing the ban

13339	Health riskiness Fesibility Nuisance factor	3 Unspecified references to improvement of public health
23003	Feasibility Health benefits Freedom factor Democratic factor	General statement favoring the ban Smoking ban will reduce molestation, harassment Ban is justified because majority wants it
23059	Federal competence Democratic factor	5 General statement favoring the ban 2 Other specific argument against the ban Cantonal vs. Federal competence
23062	Example factor	Other specific argument for the ban General statement favoring the ban Avant-Garde role
23072	Example factor	Avant-Garde role
23084	Example factor	3 General statement favoring the ban Good experiences in other countries
23119	Health benefits Federal competence	2 Unspecified references to improvement of public health 2 Cantonal vs. Federal competence
23121	N.A.	Unspecified references to improvement of public health
23141	Legal protection Economical losses	Financial losses Smoking ban will increase molestation, harassment
23155	N.A	General statement favoring the ban 33 Financial gains
23156	N.A	General statement favoring the ban Cantonal vs. Federal competence
23193	Democratic factor	General statement favoring the ban 3 Ban is justified because majority wants it

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