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The Cheesy Truth
How the Media Affects Our Image of Dairy Milk

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1. Introduction

1.1 Topic and Motivation

Dairy milk consumption has plunged 25% over the last 20 years and a market research by Mintel shows that is expected to continue declining until 2020 as well (Dairy Reporter, 2018). There has been an undeniable behaviour change in the consumption of dairy milk in recent years. What affects people and where do they get the information that makes them leave dairy products?

I myself finally quitted dairy consumption over half a year ago, and after educating myself on the aspects of dairy, it was very hard to imagine that I had never raised the question: why do people consume milk at all? Consumer behavior depends on uncountable factors: trends, researches, economical situation, and the list could go on. Milk has been an essential part of the average family’s fridge. Ever since childhood I had been eating vanilla ice cream, Danonino yogurts, cheese in my sandwich and milk with my cereal. But at this point I raised the question for myself: who tells people to consume dairy at all?

Then one moment when I was sitting in front of the television (what an old school thing to do in 2018), watching a commercial about the effects of Bifidus Actiregularis, then one about the infamous purple cow of Milka, then another one about the Kinder milk slice, I suddenly realized - milk is everywhere! It is not only about the drink itself - in every single commercial session I have seen at least one ad of a product which contains some amount of milk or its byproducts.

The media has imperceptibly convinced us that cow milk is a natural, necessary and indispensable part of our everyday life, to such an extent that if you do not consciously pay attention it is basically unnoticeable. A new study idea formulated and now here I am, researching how the media affects our image of dairy milk.
1.2 Goals

The aim of this paper is to examine the presence of dairy in the media in various aspects - commercials, posters, billboards, and to crawl the elements what it uses to convince us whether we should, or should not consume dairy product. The effects of these elements will appear in the given opinions by examined consumers as well.

1.3 Methodology

In order to get a deep view on the elements used by the marketing industry in influencing consumer behaviour regarding dairy products, I have been sure to include both primary and secondary, and also both quantitative and qualitative research. My aim was to approach the topic from various points of views, and to get there I wanted to include objective and subjective information as well.

First of all using the method of quantitative content analysis I examined popular campaign photos regarding dairy. I made a comparison between the elements, moods, tools that companies use to convince consumers to drink, or not to drink milk and eat dairy products. This methodology was followed by the qualitative content analysis of the chosen photos and videos of pro and con dairy campaigns.

In my secondary research I have chosen to do a focus group research. The selection process regarding who had been be invited to participate in this focus group aimed to formulate two small groups, who, amongst each other share the same opinion about consuming dairy products.

In the end I compared the results of the two implemented methods and drew conclusions. More about the methodologies used during the research process will be included later on in the paper.
2. Theoretical background

Examining the media coverage of dairy products requires a thorough research of what the industry went through before it got here: where milk seems to be a completely average, moreover, indispensable part of families and individuals all over the world. To begin with I extensively studied to concepts of consumer behaviour, which lead me to the theory of behaviour change communication. Thereafter I aimed to broaden my knowledge about the evolution of dairy consumption, and finally I concentrated on the introduction of media coverage of dairy.

2.1 Concepts of Consumer Behaviour

How consumers make their decisions? This topic had been interesting for many years for professionals working in the field of marketing, economy or communication science. One of the first researchers who extensively studied consumer behaviour were the Hungarian mathematician John von Neumann and Oskar Morgenstern, who publicated the Theory of Games and Economic Behavior in 1944. At the time it revolutionized economics and established a completely new theory: game theory. Game theory can be defined as the “study of mathematical models of conflict and cooperation between intelligent rational decision-makers. Game theory provides general mathematical techniques for analyzing situations in which two or more individuals make decisions that will influence one another’s welfare” (Myerson, 1997, p. 1). Any social situation that involves at least two individuals can be called a game. The individuals who participate in the game are called players, or otherwise said, the decision-makers. The players involved in games are by definition rational and intelligent (Myerson, 1997). The payoff is what the decision-maker receives from arriving at a particular outcome, which can be anything, from utility to money. Game theory has an assumption that “every player is an expected utility maximizer” (Osborne, 1994, p. 43).

Probably one of the best well-known game theory examples of strategy is the Prisoner’s Dilemma, which was originally created by Merrill Flood and Melvin Drescher, and later on finalized by Albert W. Tucker (Hilbe, 2013). This game belongs to the non-cooperative, or competitive game theory. In the situation two prisoners are involved, who are both sentenced
for two years. However they are offered a deal. If one of them confesses and the other does not, the one who had confessed can leave the jail, while the other one has to spend 10 more years there. If both of them confess, they equally need to spend 5-5 years in jail, and if none of them confesses, the prisoners will stay in jail for the original 2 years (Hilbe, 2013). The best outcome would be to find nash equilibrium, which is the most commonly used solution concept in game theory (Osborne, 1994). When applying competitive game theory to a game, players make the decision that benefits the most for themselves - as it is not a cooperative game. In this case, they are making the choice that leaves them with the best possible outcome, no matter what the other player decides to do (Hilbe, 2013).

Besides competitive games, cooperative games also exist, where players do not aim to reach nash equilibrium. In this model the costs and gains are both divided among players according to the value of their own contributions (Osborne, 1994). The players together form a coalition. If two players contribute with the same things to the coalition, they should be rewarded equally. Also, if certain players contribute nothing, following a similar logic, they should receive nothing (Osborne, 1994). Conversely, if the players do not receive anything, there is no need for contribution either.

According to David K. Levine, “what economists call game theory psychologists call the theory of social situations, which is an accurate description of what game theory is about. Although game theory is relevant to parlor games such as poker or bridge, most research in game theory focuses on how groups of people interact” (n.d., p. 1). Even today the theory is commonly used in social sciences and consumer behaviour research. Therefore the game theory, and the mathematics behind them, can be applied to social interactions, along with the decisions we make.

A wide range of factors can influence decision making, and therefore consumer habits: “need recognition, information search, evaluation of alternatives, the building of purchase intention, the act of purchasing, consumption and finally disposal” (Bray, 2008, p. 2). Decision making has been divided into various approaches: economic man, psychodynamic, behaviourist, cognitive and humanistic. Based on the topic of the research, this paper gets deeper into the behaviourist approach.
According to the behaviourist approach, “behaviour is explained by external events, and that all things that organisms do, including actions, thoughts and feelings can be regarded as behaviours” (Bray, 2008, p. 3). B. F. Skinner was a key actor in developing behaviourism, and was associated with the concept of operant conditioning, which is the process of modifying behaviour based on reward or punishment.

Another scientists worth to mention in connection with behaviourism is Ivan Pavlov, a Russian physiologist, considered the father of the approach and associated with classical conditioning. His experiment with his dog (Pavlov Dog) got famous worldwide. In the experiment he used a bell in the presence of food that caused the dog to start salivating, thus it triggered an involuntary response.

The two above mentioned scientists believed that the environment determines the behaviour. This leads to the consequence that our personality and behaviour are constantly changing due to changes in the environment, and so they can be highly influenced by the circumstances around us and by what we see, hear, and experience in general. According to Nowicki and Sikora, the attitudes consumers have towards food and nutrition depend on various attributes, “which affects in different ways on their preferences and lead to acceptance and choice of one product, and rejecting others” (Nowicki and Sikora, 2012, p. 1).

What is actually consumer behaviour? Consumer behaviour is the sum of activities which is carried out during the acquisition and use of products and services, that aims to increase consumer satisfaction (Bauer and Berács, 2006). It is also the study of processes involved when “individuals or groups select, purchase, use or dispose of products, services, ideas or experiences, to satisfy their needs or desires (Solomon, Russell-Bennett & Previte, 2012, p. 3). It is not only related to commercial issues, but also to government institutions and non-profit organisations. Consumers play a huge role in the selection, purchase and usage of goods, services and experiences. Consumer behaviour is lead by both cognitions and emotions. Both of them are rational to the individual in the situation of the behaviour (Solomon et al., 2012).

Consumer behaviour plays a role in the purchasing process. According to Kotler, there are five stages that the consumer passes while in the purchasing process: problem recognition, information search, evaluation of alternatives, purchase decision and post purchase behaviour
In the first step, the consumer is motivated by an internal pressure and/or external stimuli, for a specific solution, a product category or a brand. The demand can be awakened to a certain extent with adequate advertising, good merchandising and also discounts (Bauer and Berács, 2006).

In the phase of information search, in order to solve the problem, the consumer is seeking for solutions. Each of the information sources perform a different function in influencing the consumer in the buying decision (Sumi and Kabir, 2010). The consumer becomes more receptive to new information. When evaluating alternatives, the consumer evaluates and compares the opportunities based on information and selection criteria. It is important to give strong points that pay attention to attributes that deliver the greatest benefits (Bauer and Berács, 2006).

In the stage of purchase decision, consumers form preferences among the brands in the choice set (Sumi and Kabir, 2010). The consumer might form start to decide to buy the product of the most preferred brand. However attitude of others and unanticipated situational factors can intervene, which might disconcert the purchase decision. The last phase is the post purchase behaviour, which depends on the positive or negative experience regarding the purchased product. Satisfaction may shorten the next purchase process, however dissatisfaction might lead to the purchase being questioned, furthermore there is a tension in the consumer that leads to a new active search, and therefore a new purchase process (Bauer and Berács, 2006).

To sum up, the concepts of consumer behaviour theories and the behavioural approach give the basics to understand how the media, which gives a picture of the real world and a reflection of society can influence our consumer behaviour, even in such a commonplace phenomenon like dairy consumption.

So how is it possible to change one’s behaviour? Several behavioural change theories attempt to explain how and why behaviours change. In fact, Michie et al. described 83 theories of behaviour change in their 2014 book called the ABC of Behaviour Change Theories. Some of the most widely known ones are the social learning and social cognitive theory, the theory of planned behaviour, and the transtheoretical or stages of change model. All of the models and
theories in the field of behavioural change focus on different factors in order to explain behaviour change.

Another question raises due to the nature of this paper: how can communication be used for behaviour change? In the next part I will get into the concept of behaviour change communication.

2.2 Behaviour Change Communication

Social and behaviour change communication (BCC) is “the use of communication to change behaviours, including service utilisation, by positively influencing knowledge, attitudes and social norms” (Health Communication Capacity Collaborative, 2018, p. 1). In order to reach a goal, it is essential to use a variety of communication channels and to reach different levels of society, such as individuals, communities, and even policies. The tools of behaviour change communication may “inspire listeners to advocate for change, increase their knowledge or change their attitude towards a topic, and they empower audiences to change their own behaviour” (Communication/Behaviour Change Tools, 2002, p. 1). For effective BCC information has to get through at the right time, from the right sources. Used strategies include for example changing or positively influencing social norms to support a long-term, sustainable behavior change.

BCC has been used in various fields of health and welfare issues, such as urban adolescent programs, health promotion, and intervention programs to reduce the risk of HIV infection.

Why are we considered in behaviour change communication in terms of dairy products? Later on in this paper I will specify how the media can change your attitude and concrete behaviour regarding milk consumption. However, sometimes change is not that easy to make. Imagine that this change is the exact opposite of what a person and the community have always done. The one who changes behaviour might break a habit, a social norm or a community tradition.

A quotation from an unknown writer says: “One to change a few. A few to change many. Many to change the world. Starts with one”. And this is why we need behaviour change communication if we want a noticeable change in society’s behaviour, including people’s general attitude towards dairy products.
2.3 Evolution of Dairy Consumption

To understand how milk and dairy consumption is a self-evident activity today, it is essential to inquire into how it got where it is today. Milk and milk products appeared in numerous ancient religious texts, that allows us to know more about dairy consumption in the past. When people started to work in the agriculture field, approximately 12 thousand years ago, cows and other animals had been domesticated all around the globe. However these animals started being milked only around 4000 to 3000 BC, which we know from the evidence of pottery used in ancient Egypt and Sumer. Along with cows, goats, sheep, camels, water buffalos and even reindeers were milked (Price, 2000). At the time the milk was not pasteurized, which is considered extremely unhealthy in today’s society - however back than it was completely normal to drink milk that way. The reason why people preferred milk in certain areas is that quite often water was infected by several dangerous diseases, such as cholera or parasites (Valenze, 2011).

Farmers who worked with dairy, traditionally milked their female cow in the morning, then used ceramic jars to bring milk that was intended for sale to the market. Without pasteurization milk used to spoil within some hours, so farmers only brought the amount of milk to the market that they were sure that they could get rid off. The quick spoiling time of milk lead to the solution of how to preserve it - that is how we got cheese, cottage cheese and butter (Price, 2000).

As towns and cities were established and farms got far away from the populated areas, milk was not always the most popular choice anymore. Actually alcohol exceeded milk consumption in most cases, because it was simply considered a safer option - and at the time it was less potent than we usually have it nowadays (Valenze, 2011). Despite the short ‘shelf life’, in the end of the 18th century milk started to get delivered in glass bottles.

A revolutional turn in milk consumption was in 1864, when Louis Pasteur, French biologist, microbiologist and chemist invented the method of heating milk to a certain degree below boiling for a short amount of time, where most of the unwanted bacteria is killed - this process got named after him: pasteurization (Carlisle, 2004). With pasteurization milk had become safe drink and to transport as well. The byproducts of pasteurization also allowed the
further development of dairy products as well, such as cheeses. Nowadays owing to the pasteurization process, some kinds of milk can last up to 9 months. From 1899 homogenization has made it possible to extend the usability time even more by reducing the size of the fat drops appearing in milk (Chavan, 2011).

In 1913, refrigerators for home use were invented, which pushed the consumability of milk even further (Freidberg, 2010). In the 1950s milk cartons appeared, that slowly took over glass bottles when they lost popularity. The American conglomerate company, DuPont introduced milk bags in 1967, which were lighter and far less likely to break apart. Bags became popular all over the world, though had to compete with plastic jugs and paper cartons (Cathal, 2010). However in some countries, such as the United Kingdom, glass jugs remained popular - and even became a cultural trait. Even a very popular song, No Milk Today was created and played by Herman’s Hermits in 1966 (Roberts, 2006).

In the 20th century, milk was delivered to the suburbs from a milk float. But as the wide availability of plastic jugs and refrigerators spread all over the world, delivery slowly disappeared. In the 1970s almost all households got their milk delivered by a milkman in the UK, however this number dropped to only 5 percent in 2013 according to a British research (Dairy UK, 2013).

Nowadays a wide diversity of dairy products are available on the market: cheese, butter, yogurt, milkshake, cottage cheese are just some products of the most popular ones. Besides these, milk can be found in various meals, thus it is quite hard to avoid and has an influence in our daily life, unless someone is specifically paying attention not to consume it. Today, vast majority of milk is delivered by trucks from the farms to the factories, and from there to the grocery stores and lastly to the consumers. 85 percent of milk that comes from an animal is cow milk. An interesting fact that I came across was that plant based milk alternatives already appeared around 200 BC, however these were not quite popular options until the beginning of the 21st century (Valenze, 2011).

Knowing more about the history of milk allows us to get a deeper insight into how the world became a place of ‘milk and honey’ and got into our daily life. This leads us to understand
how the media coverage of dairy appeared and evolved over the years and how it looks like as of now.

2.4 Media Coverage of Dairy Consumption

Health and diet topics have been extremely popular in recent years, which of course includes the consumption of dairy products as well. The main cause that this paper exists now is that in the past few years consumers had been subjected to a variety of positive and negative messages regarding the health effects of dairy. People can access plenty of scientific resources in this topic in magazines and on the Internet, however it is undeniable that in some form everyone is affected by the media - and so, by the representation of milk in the media.

Why can we state that everyone is affected by the media? According to Harold Lasswell (1927) and the hypodermic needle theory, also called magic bullet theory, mass media influences us, viewers and consumers (Propaganda Technique in the World War, 1927). The media's message is a bullet fired from the “media gun” into the viewer's “head” - or if we use the hypodermic needle metaphor, the media injects its messages straight into the passive audience. According to this theory, the audience is vulnerable to the messages and is immediately influenced by them.

A different theory by Harold Lasswell and Elihu Katz, the so-called staircase theory (or two-step flow of communication) says that mass media influences the opinion leaders and influencers, such as celebrities, role models, athletes, vloggers etc, who then consequently influence the society. In this point of view the opinion leaders are the ones who interpret media messages and put them into context.

And thirdly, Maxwell McCombs and Donald Shaw argues in the agenda-setting theory that the media does not tell you how to think about something, however it tells you what to think about. The media creates an agenda in our minds (The agenda-setting function of mass media, 1972).

All three theories can be adapted to the discourse of dairy consumption in the media. Consumers are directly and indirectly influenced by the media, and they certainly have some kind of view and opinion about milk and dairy.
If the agenda of the media can influence the public agenda, the question arises: who influences the media agenda. One possible answer to this question is that the owners of media empires, and other influential power factors have a decisive influence on media-related content - in our case, the dairy industry. According to the media framing theory, the media are under the control of political and economic elites, while ordinary people have access to the media only as a host, because of their absence of money, power and expertise (Goffman, 1974). Contrary to the "crowd", elites, or otherwise said, the ones who own the political or economical power, can effectively influence the media, and how certain products can be represented by the media. Therefore, the media is not objectively depicting messages - especially the news, but also advertisements - but distorts it, that is, it presents in a frame that emphasizes some of the elements of the context of the events, while others are obscure (Goffman, 1974).

For the detailed reasons in section 2.3, we can conclude that milk has been a cultural part of our lives. Also, culture determines a person's wants and behaviour. Even though cultures differ in demographics, languages, ways of communication and values, it influences preferences, but also the way people make decisions (Aaker and Sangupta, 2000). According to Kotler (2002), consumer behaviour has internal and external influences: internal influences basically come from the consumers’ own lifestyle and way of thinking. These are among others the consumers' personal thoughts, their self-concepts, feelings, attitudes, lifestyles, and also their motivation and memory (Kotler, 2002). In another view, consumers have different negative or positive motivations, that influence their consumer behaviour (Rossiter, 1991). These motivations might be for instance problem removal, problem avoidance, incomplete satisfaction, or sensory gratification, intellectual simulation, or social approval and conformity (Rossiter, 1991). As for the above mentioned reasons milk can be considered a part of our culture, conformity can play an outstanding role in dairy consumption habits.

Whereas external influences include for example culture as the broadest external factor. Torelli argues that culture impacts on the basic psychological domains, which are self-identity and motivation. Besides these culture also impacts on the way that information is processed and therefore on the way that advertising messages are interpreted (Torelli, 2017). In a globalized world understanding cross-cultural habits, and playing on them to shape
consumer behaviour will be a challenge for marketers in the future - which also applies to the aims of promoting or preventing dairy consumption.

According to the study of Dairy Products and Consumer Demand for Health Foods, “the barrage of conflicting messages provides a challenge both to health-conscious consumers, as well as to the producers and marketers of dairy products” (Cash, Wang & Goddard, 2005, p. 68). There had been studies that show evidence of how the media influences dairy consumption. According to Jensen and Kesevan, “nutrient content advertising, such as messages emphasizing the influence of calcium, had a significant impact on consumers’ awareness of and attitudes towards health. This resulted in stronger attitudes towards nutrients and had a positive effect on dairy product consumption” (Jensen, 1993, p. 3).

Anti milk promotion viewpoints also appear. Michele Simon, American public health lawyer states in her work *Whitewashed - How Industry and Government Promote Dairy Junk Foods* the followings about the national dairy checkoff, which is an American dairy product promotion program: “the federal government mandates the collection of industry fees for “checkoff programs” to promote milk and dairy; USDA’s (United States Department of Agriculture) milk checkoff program promotes “Chocolate Milk Has Muscle” and “Raise Your Hand for Chocolate Milk” campaigns to defend chocolate milk; the checkoff-supported “Fuel Up to Play” program contains health messaging that is contradictory to federal dietary advice” (Simon, 2014, p. 1). Is it controversial that the US federal government strongly supports the dairy industry to an extreme level? Simon argues that “checkoff funding should not promote dairy junk foods that conflict with dietary guidelines or health programs” (Simon, 2014, p. 1).

Milk consumption can be connected to many different forms of media information. Consumers are more and more concerned about their diet, which results in changing milk demands as more information seems to appear in the media. Moreover, negative media coverage can also strongly affect milk consumption - which suggests that the milk industry, if that is where the world is going, will need to be active in creating valuable nutritional research in order to prevent future shifts in the demand for dairy products. People see the Rock's Milk “Morning Run” ad while watching Super Bowl in the United States, or walk pass a “Got autism?” campaign photo by PETA. They are bombed by diverse opinions, and
needless to say it might give a hard time to decide what to think about dairy for those who have not looked deep into the topic or done some extra research on the effects of dairy milk. Even so, there is a huge controversy between scientists, doctors and dietitians on whether humans should consume or not milk products. So what shapes the opinion of an average media consumer in the case of dairy? That is what this research is all about.

3. Secondary Research

As of the secondary research of this paper, I used the methodologies of quantitative and qualitative content analysis. The aim was to get an overview of the methods, elements that pro and con dairy campaigns use to convince consumers about whether or not to consume milk and dairy products. The quantitative method was (based on its nature) used to gain quantifiable data about the examined data set, which was later on completed and complemented by the results of the qualitative analysis. Together the results obtained from the two different kinds of content analyses gave an exact description, characterization of pro and con campaign photos used by movements for and against the dairy industry. The method of simple random sampling was used to create the data set, gained from the online available campaign photos regarding pro and con dairy campaigns. 300 downloaded photos were chosen among the pro milk campaign photos in the most popular search engine’s (Google) database. In order to find them, I searched for “pro milk campaign”; ”pro dairy campaign”; “pro milk campaign photos” and “pro dairy campaign photos”. To get a data set of 30, I have used the list randomization function in Microsoft Excel. The same method was used to create the data set for anti milk campaigns, except for the word “pro” had been changed to “anti”.

3.1. Quantitative Content Analysis

The pro and con dairy campaign photos were analyzed by the method of quantitative content analysis. The aim was to get measurable, quantifiable outcome in order to understand more the used visual and textual elements of the given pictures. As it was mentioned above, the examined data set consisted of 30 pro and 30 con milk and dairy campaign photos.
3.1.1. Data Set

The pictures and photos were examined by the rules detailed above and in the Codebook (Appendix no. 9.1). First of all the aim was to define the dominant colour of the pictures. In order to study dominant colours more, I used *The effect of an advertisement’s colour on emotions evoked by attitude towards the ad* by Marie-Christine Lichtlé. This literature helps to define the dominant colour, or colours of a certain picture. To automate the process and to gain extra time, to define the dominant colours of the pictures, the page IMGonline.com.ua was used. The tool analyzes the pictures and gives the HTML colour code of it. This process was followed by the categorization of the colour, which was done by Colblindor (2018). By uploading the code, the website puts the colour in a HUE category, and also exactly defines the name of the colour. Based on the HUE result, I was able to put the colour into the 10 main HTML colour category.

The next analyzed point was whether the text was emphasized. An emphasized text would be taking 50% or more of a picture. The following points examined whether or not milk as a product, a person, and a cow appeared on the photos. The requirements of these points are detailed in the Codebook.

Furthermore, the Codebook includes the definitions and conditions that were used for this research, and that must be followed by fellow coders in case of the continuation of this present research. The Codebook defines the dominant colour categories based on the examined colour RGB and HTML colour codes. It gets into the details of what can be considered an emphasized text, which in fact includes 50% or more of the space of the examined picture. The book defines what conditions indicate the presence of a dairy product, a person or a cow as well. The Codebook can be viewed in details in Appendix 9.1.
3.1.2. Analysis

The dominant colour of the analyzed pro dairy campaigns were blue in 60% of the cases.

![Dominant Colours of Pro Dairy Campaign Photos](image)

**Figure 3.1.3.1. Dominant colours of pro dairy campaign photos. Own editing 2018.**

What could be the reason for this? According to Singh, blue is a cool colour which blue stimulates the sympathetic nervous system the most and can be associated with calmness and relaxation (2012). Wiegersma and Van der Elst (1988) also found that blue was the most preferred color in general across cultures - dairy products also are a part of life in most cultures on the planet. The findings of Singh indicated that blue is considered a happy colour, as above mentioned, it is used to calm and relax consumers, however it may act as an appetite suppressant - which might be contradictory in the case of advertising milk. The following dominant colours of the analyzed pictures were brown; red; gray and black; and yellow.

The dominant colours of con dairy campaigns resulted in a more diverse result. A slight majority of pictures had grey and black as a dominant colour, while the second most used colour was blue. Singh mentioned gray and black as a neutral colour, however black always had a negative connotation associated with it, dating back to 2300 BC (2012). Yellow, orange, and blue are considered as happy colors, red, black and brown as sad colors (Cimbalo et al., 1978). According to this 36.6% of the colours used in con dairy campaigns are happy, while 50% of the colours are sad.
No cases have shown that, based on the requirements detailed in the Codebook, the text would be emphasized on pro dairy campaign photos, indicating a lack of importance of textual arguments. However, 20 out of 30 con photos (66.6%) had emphasized text on them, from which we can conclude that the textual information of con dairy campaigns are more important than the visual elements.

93.3% of the analyzed pro photos had identifiable milk or dairy appearance in some form, thus milk itself had a central focus on these pictures. Meanwhile 50% of con photos had dairy products displayed on them. This can lead to the conclusion that in the cases of pro photos, milk is the main product that wants to be sold, however in con photos the message confirmed by a visual argument is often different from the product itself.

The vast majority (73.3%) of the pro campaign pictures used at least one person on the photos, while two thirds of the con photos did not present a person at all. It is interesting to compare this result based on the representation of cows on the pictures: only 4 out of 30 (13.3%) of the pro photos used a cow as a visual element. By contrast nearly half (46.6%) of the con campaign photos had at least one cow displayed on them. An interesting result to see how the pro campaign photos emphasize the consumer, and how milk is a product FOR humans, meanwhile con photos highlights the origins of milk, that it is FROM a cow.
3.1.3. Results

The above used method resulted in interesting quantifiable outcomes. When analyzing photos, sometimes the researcher’s first impressions are different than the results presented by a quantitative method. Especially dominant colours and emphasized texts are difficult to measure with a naked eye.

The results gave an overview of what kind of colours are used in pro and con campaign photos, and the literature review helped to understand what the reasons could be of the proportions of the used colours - such as the presumably positive meaning of blue, or the negative connotations of dark colours.

Analyzing the emphasis of texts showed the importance of visual and textual elements of the photos, that turned out to be quite different in the cases of pro and con campaigns. The results highlighted that textual content is a lot more important in the cases of con dairy campaigns than in the usage of pro milk photos.

Finally the representation of milk as a product, people and cows highlighted what different companies want to emphasize on their photos in order to reach their goals. Milk as a product is most likely represented on pro campaign photos, while it does not appear in most of the cases of con photos. Cows basically only appear in case of con campaigns.

Comparing the outcomes of the quantitative content analysis to the results of the qualitative research methods are essential to get a more diverse view on the elements used by pro and con campaigns regarding dairy products.

3.2. Qualitative Content Analysis

In order to complement the results gained from the quantitative content analysis, I have analyzed the same campaign photos along with the campaign videos (also used in the primary research) to have a better overview on the pro and con dairy campaigns. Based on the three types (thematic, evaluative, and type-building) of qualitative content analysis by Kukartz (2012), I have chosen the method of type-building, in which the cases can be investigated by their properties, their differences, their similarities to classes, and then these groups can be
multifaceted and accurately described by their characteristics. The procedure should be applied if the cases are able to be represented by two or more features (2012).

3.2.1. Analysis of Pro Campaign Photos

In the quantitative analysis it was concluded that the dominant colour of the pro campaign photos was blue. The dominant colour was often complimented by white, which is the colour of milk. However milk was not only represented as a drink. In some cases milk was represented as an additional accessory, such as wings, or a dress. A returning element on the photos is the milk moustache. People represented on the photos were often worldwide known celebs from the music, film and sports industry, such as Taylor Swift, Lindsay Lohan or Superman. The people on the photos are young, strong, happy, healthy and beautiful, the
pictures suggest that the positive characteristics of these people are the results of milk consumption.

3.2.2. Analysis of Con Campaign Photos

Texts on con campaign photos are catching the viewer’s attention immediately. Scientific and factual texts are often presented on the pictures, with numerical data or reference to studies. Disturbing photos are more in use, such as the presence of blood in a glass of milk, problematic skin of models, or sick and weak cows. People used as models often have a negative face impression, such as a baby crying or a sad face. The overall impression of the con campaign photos is negative, disturbing and frustrating.

3.2.3. Analysis of Pro Campaign Video

In the qualitative research of both content analysis and focus group research, the video “Milk Mustache Campaign Super Bowl XLVII TV Commercial with Dwayne "The Rock" Johnson” was used as a sample. The results of the focus group interviews in the context of this video will be presented later on.

The main protagonist in the video is an action-man like character personalized by Dwayne Johnson. The story of the video is to have a morning full of catastrophe-like actions, such as bank robbery, a lion attacking people in a taxi, even a cat being stuck on the top of the tree. However the main problem seems to be being out of milk. As the video suggests, drinking milk has to be an essential part of the morning routine, which is emphasized by the text “Protein to start your day” in the end of the video.

The ad is apparently a high budget video, which can be concluded by the visual effects and the popular actor used in the scenes. It is vibrant, vivid, fast, full of actions. Milk as a product has a positive impression, as being the essential drink to have a successful start of the day, and therefore to become a successful person who can cope with extreme situations.

3.2.4. Analysis of Con Campaign Videos

For the analysis of con dairy campaign videos, the videos “If Milk Commercials Were Honest - Honest Ads” and “The milk advert fonterra doesn't want you to see” by Greenpeace
were analyzed. Similarly to the pro campaign videos, these ads were also shown to the volunteers of the focus group.

The “If Milk Commercials Were Honest” video uses a sarcastical, parody-like way to catch the viewer’s attention. Several elements (that up to the video might be used by average milk commercials) are used in an ironic way. It suggests that no one has questioned the ability of milk to make bones stronger, or that showing an athlete drinking milk will convince the viewers to be as strong as them. It also uses several different names for popular milk products, such as “solidified utter fat” for butter, or “aged cow titty goop” for cheese.

The commercial leaves a negative impression in the viewer’s mind, that the milk industry has a political and financial aim to sneak milk products into the food people eat, however, by giving new labels to the dairy products, they do not seem healthy at all, but rather quite harmful. Besides its sarcasm, the video has a jesting, but at the same time surprising atmosphere.

The advertisement by Greenpeace seems to be a pro campaign in the beginning, but turns out to be a con video in the end - this controversy was the main reason why it was chosen to be analyzed. A young, healthy woman returns from her morning run, which is followed by drinking a glass of milk. However a hairball comes out of that glass, and then pictures are shown by how the milk industry destroys rainforests by using palm kernel. The connection between rainforests and palm kernel is that, in order to plant palm trees, rainforests are being cut down, which endangers the natural habitat of orangutans.

The negativity of the video is also powered by the dark images, and the horrifying music used in it. The retching woman, even though the commercial is not about the health effects of dairy milk, leaves the impression of milk being an unhealthy and harmful drink to consume.

3.2.5. Results

The qualitative analysis of pro and con campaign photos and videos highlighted what kinds of impressions they make on viewers. Naturally only the researcher’s point of view is not sufficient, nor can be objective. The qualitative analysis therefore is expanded with a focus
group research, in order to get a deeper view and a more thorough analysis of the campaign elements.

Analyzing the photos showed that pro photos show personals quite often, who are beautiful, healthy and strong. The photos aim to leave a positive impression of both milk as a product and the people who consume it. On the other hand con photos use scientific-like facts and texts that are more eye-catching than the visual elements. If people or animals (cows) are pictured, they often leave a negative impression - unhappiness, unhealthiness are likely shown.

 Comparing the pro and con videos, including the elements of the Greenpeace video that seems to be a pro campaign in the beginning, presents the elements used quite well. Including healthy, muscular, strong people, such as the actor Dwayne Johnson, or a beautiful athlete leaves the positive impression that milk is necessary, healthy, and a great way to start the day. On the other hand scientific facts, conspiracy theories, harmful environmental and health consequences or using the “real” names of dairy products leave a negative impression in the viewer.

The reliability of this part of the research could be even more extended by adding more photos and videos, which could be a great initiative for future research of the topic.

4. Primary Research

As a primary research, to gain information about the consumers’ opinion and behavioural habits considering dairy, I have chosen the qualitative method of focus group research. The aim of the primary research is to complement the results obtained from the content analyses.

4.1 Methodology of Focus Group Research

The results of this research are not representative, neither do they provide statistical data, however they reflect the views, feelings and experiences of consumers - which was the primary aim of this paper. The reason why I have chosen this method is that my aim was to take advantage of the ongoing processes in the group and consumers' communication between each other. During the interviews it was essential to talk about how and why the
members' views and beliefs have evolved in such a form. The aim of the focus group research was to confirm the results previously gained from the quantitative content analysis of pro and con dairy campaign elements.

In order to establish a personal, intimate atmosphere which allows participants to share their private opinions in an off-handed manner, I have chosen to do the interviews with a small group of pre-selected volunteers. The norm is to have a focus group interview with 8 to 10 people. However food preferences and eating habits (including the consumption of dairy) is a personal topic - even eating and drinking in front of strangers might cause anxiety. My aim was to make sure the participants feel safe and comfortable sharing their thoughts on their views on dairy products.

Based on the data provided by a pre-selection, I have created two relatively homogeneous group based on the volunteers’ dairy consumption habits. Both groups consisted of four people, who are currently living in the city of Budapest, and are between 20 and 35 years old. The participants in group A were people who either minimally, or not in the least consume dairy products. The volunteers of group B were regular milk and dairy product consumers. Hereinafter in the analysis group A will be referred to as ‘con group’, and group B will be called ‘pro group’, in order to facilitate the understanding of the results.

4.2 Interview Questions

The interview questions and tasks used in the focus group aimed to confirm the concepts of the above detailed main theories, that can be connected to the research of media effects on dairy consumption, and particularly to confirm the results of the content analysis on the examined campaigns. As the moderator I used a detailed guide to lead a structural interview, in order to reveal the opinions and thoughts of the participants as much as possible, not just on the surface, but behind their primary answers as well. The focus group guide is attached in Appendix 9.4.

Two focus group interviews took place in March 2018, in the city of Budapest. Based on a pre-selection, four-four participants took part in the interview. The first group was a regular milk consumer group, that consisted of 2 men and 2 women between the age of 20 and 35. The second group consisted of non-consumers - 3 women and 1 men, also in the same age
The participants of both groups had at least high school as their highest level of education, and they are all regular media consumers according to their own statements. The interviews took place in the territories of Corvinus University of Budapest, where a silent, agreeable room served as a venue for the focus group discussions.

4.3 Analyzing Results

Establishing an agreeable environment allowed participants to openly share their views about milk and dairy. After the introduction and some warm-up questions about the participants’ consumer habits about dairy, I surveyed how familiar they are with pro and anti dairy campaigns and advertisements. In this context a pro dairy advertisement would be an ad, poster, etc. that encourages people to buy and/or consume a certain dairy product, or dairy in general. An anti dairy campaign or ad specifically carries the message not to consume a dairy product, for instance milk, or dairy at all. 4 out of 4 participants in the pro group were able to list at least one pro campaign or ad, and the results were the same in the con group as well. However regarding anti dairy campaigns, while all of the volunteers of the con group were aware at least one ad, in the pro group 2 out of 4 were able to pick an actual campaign ad. From this result we can conclude that those participants of this research, who do not consume dairy, had been exposed to more anti dairy campaigns before, than those who regularly consume milk.

When sharing previous knowledge about pro milk advertisements, the con milk group mentioned advertisements such as the “Nesquik cacao milk, that emphasizes lots of calcium and how the kids will grow big”, or the milk can by Riska that “popularize the Hungarian milk producing” and the “music and adventure related creamy Kinder Bueno”; “cheap Riska milk with cows” and “Milka chocolate with happy cows” (Márta, 23). Influencers were also included by mentioning the “new flavours of the Oikos Greek yogurt” (Mónika, 23). A campaign telling: “do you drink milk? probably wanted to suggest to drink milk” and “milky sweets desserts” (Dániel, 29), or “grazing cow and a nice field in the background” (Zsófia, 32). A memorable one for one volunteer was “sliding fruits who wanted to be fruits in the Jogobella yogurt when they grow up, using children’s voices, pastel colours, that surely propagates milk consumption” (Zsófia, 32). The pro group specified ads such as the “Activia yogurt, which is good for your digestion, and also for your bones” (Dóra, 23); “flavoury

dairy products”; “greek yogurt that is creamy, light, good to eat” (Krisztián, 21), and “new plum flavoured Túró Rudi (cottage cheese roll)” (Lili, 24). Both group seemed to be quite familiar with pro dairy campaigns based on these results.

Anti milk advertisements in the con milk group also came up: these were more textual advertisements, and in a few cases some scary videos about the dairy industry, or some plant milk commercials that were sarcastic about cow milk consumption. In the pro group 2 participants mentioned YouTube videos about the lives of dairy cows. In this part the answers provided by the participants are a lot less detailed, they were less familiar with anti milk campaigns in general.

The participants were asked to comment photos of pro and con milk campaigns by the chosen companies: PETA, Physicians Committee, Mothers Against Dairy, Viva!, Milk Life, Dairy Farmers, Coca Cola, and Got milk. Before commenting the pictures, both of the groups had to classify the companies into pro and con sections based on their previous knowledge or impressions. The con group was able to identify the companies’ preference to dairy with 100% success, while the pro group made 2 mistakes. This shows that the con group might be more aware of anti dairy campaigns and the companies behind them.

The results of the secondary research are verified by the presented opinions in the pro and con dairy groups. When mentioning characteristics of the pro campaigns, the following comments were mentioned by the con group: “flowing milk, no matter if it’s necessary or not”; “dominant blue and white colours”; “cows are grazing under the blue sky”; “more entertaining”; “not much text - only a slogan and a picture”. The pro milk group found the pro campaign photos containing “strong, healthy people, full of energy, because milk has protein in it, everyone is fresh and flowing”; “active photos”; “confidence”; “lack of texts, but they tell you that you need milk”; “everyone smiles”. Similar results can be examined if we compare the results of the secondary and the primary research. The participants recognized the dominant colours, the textual rates, the overall impressions of the photos.

Analyzing the photos of the con milk campaigns by the con dairy group included: “much text and dark colours”; “strong visual content”; “female body strongly represented next to milk”. The pro group found the con campaign photos to include “much texts with lots of arguments”; “try to play with emotions, puts the cows in the center”; “use of depressing
“colours”. Again, the groups both confirmed the results of the content analysis, with additional comments of female bodies, motherhood and cancer: “How would it be as a mother if your child was about to be taken away for milk?” (Dóra, 23). “The facts seem to be confirmed. We can see that studies show this. There is evidence that this is wrong. (...) Most people read if there’s something written why you have cancer” (Lili, 24).

The Super Bowl ad by Got Milk? was characterized as “socially declining”; “creative”; “action movie” by the con milk group. The protagonist was mentioned as the “strongest man”; “muscular”; “famous”; and “hero”. Meanwhile, milk as a product was mentioned as “irreplaceable”; “vital”; “more important than anything”; “gummy syrup or magic potion” by the con group.

According to the pro group, the ad was “exaggerated”; “movie-like”; “dynamic” “eye-catching”, the protagonist was considered “milk dependent”; “famous”; “well-known, healthy, and sporty”; and “strong, heroic”, while milk was “vital”; “more important than anything”; “big proportion, always needed” and “day starter”. The impressions of both groups were quite similar to each other.

For a successful pro ad campaign, the pro group argued that the five most important factors were: “well-known, healthy, dynamic, eye-catching, and vital”, while the con group had the opinion that the list should be: “famous person, children, comedy, hero and vital”. Both groups thought to have a famous/well-known person to be essential for a successful campaign, along with vitality. The pro group did not include children in a potential campaign, while the con group did.

After watching the If Milk Commercials Were Honest video by Cracked, the participants were asked to score the video on a scale from 1 to 10 based on its originality, creativity, informativity and positivity regarding milk. The con group gave quite high scores in average: originality 10, creativity 9.75, informativity 9, regarding the positivity towards milk they gave 0.5 in average. They commented the ad to be “very creative, but too long” (Zsófia, 32).

The pro group found the ad “ironic, sarcastic”; that “makes you feel bad when he says brainwashed” (Lili, 24). The points this group gave were a bit different to the con group however. On average, originality got 7.25, creativity got 7, informativity got 7.75 points.
Positivity towards milk however scored 1.75 in this group. One of the comments regarding this score about positivity was that “even though the ad said negative things about milk, you still saw all the dairy products in some form” (Krisztián, 21). Based on these results the con milk group had a more positive view of the ad’s originality, creativity and informativeness, than the pro group, on the other hand, the pro group did not seem to experience such a negative view on dairy provided by the commercial.

The ad “The milk advert fonterra doesn't want you to see” by Greenpeace resulted in various opinions. The con group’s comments were: “It was tough. Interesting to see together palm kernel and milk. We usually never see these things together, but it seems like there is connection between the two things” (Mónika, 22). “Very effective. Especially because you go to the other side from the suburban dream” (Zsófia, 32). “Very strong, used the two extreme parts very well visually” (Márta, 23).

The pro group found de video “tough”: “in the beginning it seemed like everyone should drink milk as it is a good protein source (...), but getting that ball out of her throat was disgusting. I didn’t understand how the chimpanzees come there, I was confused” (Lili, 24). The connection between palm kernel and milk had to be explained. This and the previous comments highlighted that as the pro milk group seemed to be unaware of the environmental consequences of dairy consumption, they were a lot more shocked when seeing the commercial. “It was shocking to hear about a global problem after milk” (Krisztián, 21); “It burnt into my mind” (Lili, 24); “It tells about a problem that we wouldn’t know that it is in connection with milk” (Dóra, 23).

The participants were asked to emphasize the main elements to build a successful anti dairy campaign in their opinions. The con group argued to include “motherhood and the feeling of the children that are taken away. 50 percent of the world’s popularity are women, and this is such a strong argument that everyone can feel”; “calling things on their names”; “they are not as innocent as pictured” and “environmental destruction” (Márta, 23). “Showing what the animals experience for milk visually”; “the diseases caused by milk” and that “it is possible to live without milk”(Mónika, 22). “Showing the dark side of the dairy industry” (Dániel, 29). “The campaign should not go aggressive though (...) The dairy industry is gross. But if you tell this to someone’s face, they will reject it” (Zsófia, 31).
The pro group mentioned elements that include scientific research, such as “showing the negative effects on people’s health and also the environment”; “don’t use fear, but rather scientific studies. It shouldn’t be shocking”. “It should be specifically mentioned with arguments why it is wrong to drink milk” (Dóra, 23). “Just as for a pro campaign, it would be good to include a famous person who does not consume milk.” (Krisztían, 21). “Not just including health, but my environment as well should be included. I make harm with many other things to my health besides milk” (Lili, 24). It was interesting to see how the con milk group would include more emotional, negative aspects, such as showing the dark side of the dairy industry, including animal suffering, while the pro milk group would prefer scientific facts and researches on the health and environmental risks of dairy.

In the last part of the focus group research, the goal was to examine the behavioural approach with particular emphasis on behaviour change, and behaviour change communication. The aim was to examine how the focus group participants themselves would inspire listeners to advocate for change, increase their knowledge or change their attitudes towards dairy. In the first task the participants were asked to create two campaigns. In the first situation they were working on a pro dairy campaign. The volunteers were asked to create a sketch of the following: a 3-meter-high poster, placed at Ferenciek square Budapest, that would be seen by thousands of people each day. The con group created a colourful poster with a famous Hungarian sportsman, Berki Krisztían, who is offering a kid a glass of milk with a straw. They used a slogan “Be the biggest”. They also included different hashtags such as #Calcium and #Protein. They specifically mentioned not to include cows.

The pro group also used a famous Hungarian sportswoman, Hosszú Katinka, one of the biggest swimmers nowadays, who would be drinking Mizo (Hungarian brand) milk. The slogan would be: “The Iron Lady drinks milk too”. They would include a quote from her with her signature. The colours would be the main colours of Mizo (blue, red, yellow).

The analyzed content and the campaign preferences of the focus group aligned in the case of including healthy, strong, preferably famous sportsmen and women in the case of promoting dairy. It would be essential to include the product. The con milk group emphasized having children in a successful pro milk campaign beforehand, and in the situational task they
included this element again, while the pro milk group did not include children neither in their list, nor in their imaginary campaign.

In the second situation, participants were asked to create a sketch of an anti dairy video campaign, which would run on YouTube and in television as well, would last for 1 minute and, just as the poster in the previous example, would be seen by thousands of people. The con group planned to create an ad of two parts. In the first half of the video, the ad would show a beautiful motherhood, with a mother expecting a baby, and the parents looking forward for the baby being born. In the second half, the situation would turn into the life of a baby cow, and the video would show the calf’s dark life after it was born. They also considered a pro plant based milk campaign, however they decided not to go further with that, as they argued that in Hungary, a plant based milk campaign would not be successful due to the price difference between cow milk and plant based milk alternatives.

The pro group wanted to include dark, depressing colours. The video would show the situation from the cow’s side, just as a “nightmare”. The same situation would repeat over and over again. In the end a famous person, a sportsman: Louis Hamilton would dramatically refuse drinking milk, saying “I’m not drinking this”. This would be trustworthy, as he does not consume milk in real life either. The group also considered other options for the role, such as Hungarian olympic champions, but they sticked with Hamilton.

Both groups included the cow’s perspective in their imaginary campaigns. The pro milk group, just as it had occurred before, would include a famous, strong person to promote the refusal of milk consumption. Applying behavioural change communication in practice shows how the participants would apply the examined elements of campaigns in both the quantitative and the qualitative research. The volunteers actively applied these elements, methods, colours and moods while creating their own campaign ideas.

In the last part the aim was to recap what the group had been discussing and to raise directed questions to confirm the behavioural approach: whether behaviour can be changed and explained by external events. The volunteers were asked to point out views, elements, external events, that would change their own behaviour, both for consuming dairy (again) or to abandon dairy consumption at all. “Nothing could convince me to drink milk. About why not to drink milk, I know many arguments already” (Zsófia, 32). “I could be convinced to
drink milk if someone proved me that cows would explode without me not drinking the milk of it. But otherwise I would not drink milk.” (Dániel, 29). “I have heard pretty much everything against dairy. Nothing could probably change my opinion. Maybe if we could save the lives of calves. But I don’t really think so” (Mónika, 22). “These advertisements build on an old tradition that is deep in our culture. People cannot really imagine the alternatives. That is why they don’t get into the details” (Márta, 23).

The pro group also highlighted elements, that would convince them to drink or not to drink milk. For pro milk arguments, they said: “if I really think about it, nearly nothing (...) I would now be sceptical if someone told me that milk is from a good place” (Krisztián, 21.). “If I was made sure that the milk comes from a good place. However I’m not sure they could convince me with calcium or protein. I guess I can get them from somewhere else. (...) With new flavours I might be convinced” (Lili, 24). “Now I’m not sure either that I could be convinced to drink milk. Maybe if it was sure that is good for my health and the cows as well. (...) Low fat and sugar free milk could convince me” (Dóra, 23). “I’m not sure an ad could convince me to drink milk. Maybe with a new flavour” (Zsolt, 20). Against dairy consumption, the group could be convinced by “affecting emotions” or “effects on the environment”. “I did not even think about rainforests and chimpanzees. If I saw a study about buying milk and causing this much problem, maybe I wouldn’t put that much milk in my coffee, so it would last longer. (...) If they showed concrete people as an example, that they got sick from milk(...) They need to show that!” (Lili, 24). “Maybe if it was shown how disgusting it is that the milk is on the table. People don’t really think about that. (...) Hamilton is also happy and healthy without milk. He could be shown. They need to show the alternatives, that you don’t need to poison yourself and the environment”.

The con milk group seemed to be already convinced not to drink milk - they do not need arguments neither for not against dairy. The only argument that could convince them to drink milk is to somehow help the cows with that - but they all agreed that this would be quite unlikely. However the pro milk group did not seem to be very much committed to their decisions about dairy consumption. In the end of the focus group interview they seemed to be a lot more passionate about reasons why not to drink milk, which manifested in the detailed answers and comments that they gave when asking about how to convince them whether or
not to consume dairy. Who knows, maybe this research itself contributed to the start of a behaviour change.

4.4 Conclusion

The goals set of the focus group research can be considered achieved, as the tasks performed and the results obtained are in line with the results of the quantitative and qualitative content analysis performed on for and against dairy campaigns. The practices used for changing behaviour appeared during the focus group interviews, along with the visual elements used by pro and con dairy campaigns.

An unexpected result of the focus group research occurred right after the group interviews. One of the participants (Márta, 23) decided to completely abandon dairy consumption the following day after the interview. She mentioned that based on the anti campaign photos and videos shown during the tasks made her realize the cruelty and harmful effects of it, and that she would like to cut out dairy products from her life from that point on. From a researcher side it was extremely interesting to see how a research interview, that lasts for only a couple of hours, could completely change someone’s behaviour - this is the real behaviour change communication!

To sum up, the above presented theories are confirmed by the results of the focus group research. Based on the results of the quantitative and qualitative content analysis, a certain scheme seems to be used campaigns for and against dairy products. The results of the content analyses and the focus group interviews confirmed the followings: bright colours, famous stars, short texts, healthy and strong men and women are used to convince people to consume dairy products. On the other hand, scientific information, dark colours, long texts are the characteristics of anti dairy campaigns.

The focus group research detailed even more the effects of the media on people regarding their views of dairy. These effects would have been difficult to measure by quantitative methods - the intimacy and communicativeness highlighted the personal views and impressions of the elements used by the media: the activeness, creativity, persuasion of pro campaigns, or the sarcasm, informativeness, the negative and accusatory effects of con
campaigns. The quantitative and the qualitative research complimented each other to create a better understanding on how the media affects the consumers’ views on dairy.

5. Limitations

Even though this paper is only a tiny piece of the cake, the main limitation comes from the diversity of the topic. Milk and its byproducts have been around for such a long time, both on the table and in the media, that it is difficult to choose one or only a few aspects that give the core of a study. Furthermore, even in the media discourse milk is widely debated.

Regarding the quantitative content analysis, I faced the problem of not accessing a database that includes the needed campaign photos at one place. However while I was searching for relevant sources to provide me the content needed for the research, I was able to broaden my knowledge about the topic, as I came across many useful articles, ideas and viewpoints that made this paper more diverse.

One aspect I was afraid of in the beginning was how to establish an intimate atmosphere during the focus group research that allows participants to share their deep, private thoughts about their consumer habits. I needed to do a thorough research in the methodology of focus group interviews to get the hint of becoming a competent moderator. Obviously this part of the entire research could have been even more diverse by including more groups. My intent to establish a friendly atmosphere succeeded in my opinion, thus the number of participants should not be changed even in the case of further research.

The next limitation can be deducted from the previous one - time limit allowed me to dip in the topic, however by the end I have had the impression that this research could be a lot more expanded in the future. I am looking forward to spend more time to deal with consumer behaviour and views on the dairy industry, or food industry in general.

Last, but not least financial constraints were also a limitation of the research. All methodologies used during the creation of this paper were entirely free of charge, however I am aware that in the real world, companies that really care about marketing research spend an enormous amount of money to see the results. In the discussion part of this paper, I am
getting into the details of further research opportunities for this topic that could possibly require a bigger investment from the researcher.

6. Discussion

Researching the effects of media is an extremely broad topic and could be examined in numerous different ways. This paper is only a step into the deep ocean. Nowadays we have the opportunity to use advanced technologies for research purposes besides the traditional methods - which is only a question of time, money and access.

A great way to research this topic would be to use tools of emotional intelligence. Emotions drive behavior. Realeyes is a company that works with webcams to gain data on people’s emotions. The volunteers share access to their webcams. The technology uses computer vision and machine learning: it tracks the facial expressions of the people and report in real time about how the audience really feels about the presented content. This kind of emotional performance helps to predict, or monitor the success of campaigns - such as milk advertisements.

Another advanced way to research the effects of media on the attitudes towards milk consumption could be neuromarketing. Neuroscientists are able to directly study the frequency, location, and timing of neuronal activity to an unprecedented degree (Lee, Broderick & Chamberlain, 2007). These opportunities however remain untapped by marketing and social science researches despite it’s great potential, as it raises plenty of controversy regarding ethics. It is unquestionable though that using advanced technology such as neuromarketing could provide extremely measurable and accurate data regarding consumer behaviour at first hand. In my view as long as the volunteers are completely aware of the exact methods and processes used during the neuromarketing research, this kind of technology can be highly beneficial for both companies and consumers.

Besides the above mentioned technological innovations in marketing research, I would still recommend to get back to the good old kinds of quantitative social methods, which are typically surveys and questionnaires. The number of dairy consumers is constantly changing - as mentioned in the very beginning of this paper, according to a 2017 study by the United
States Department of Agriculture indicates that dairy consumption in the US dropped 22 percent between 2000 and 2016 (United States Department of Agriculture Economic Research Service, 2017). Meanwhile non-dairy milk sales grew by 9% in 2015, and sales of dairy milk decreased 7 percent ($17.8 billion) which are projected to drop another 11 percent through 2020 (Mintel Press Team, 2016). Numbers are changing dynamically each year, or even each month, so researching this field with qualitative methods that include many participants of the society could pay off very well.

To summarize, researching the effects of media on dairy is a far-reaching field of topic. Hundreds of reports and surveys are available since milk consumption has become an essential product of societies all over the world. Even if we reduce the studies to research it from a media or communication related point of view, it could be a decent topic even for a PhD dissertation. I am looking forward to see further results of studies or to participate in new researches regarding this topic in the future.
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9. Appendices

9.1. Codebook

**CODEBOOK**

Characteristics of Pro and Con Dairy Campaigns

**Unit of Data Collection:** Each picture or photo which can be placed to either a pro or a con dairy campaign and that is part of the analyzed amount

**Coder ID:** Indicate the ID number of the individual who coded the sheet according to the coder ID list.

**Picture ID:** Fill in the picture’s ID number, as indicated on the picture ID list.

**Dominant Colour**

<table>
<thead>
<tr>
<th>Category</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pink</td>
<td>Based on the image processing result of IMGonline.com.ua, the dominant colour is defined, and the RGB code of the colour belongs to the HTML colour range pink.</td>
</tr>
<tr>
<td>Red</td>
<td>Based on the image processing result of IMGonline.com.ua, the dominant colour is defined, and the RGB code of the colour belongs to the HTML colour range red.</td>
</tr>
<tr>
<td>Orange</td>
<td>Based on the image processing result of IMGonline.com.ua, the dominant colour is defined, and the RGB code of the colour belongs to the HTML colour range orange.</td>
</tr>
<tr>
<td>Brown</td>
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</tr>
<tr>
<td>Green</td>
<td>Based on the image processing result of IMGonline.com.ua, the dominant colour is defined, and the RGB code of the colour belongs to the HTML colour range green.</td>
</tr>
<tr>
<td>Cyan</td>
<td>Based on the image processing result of IMGonline.com.ua, the dominant colour is defined, and the RGB code of the colour belongs to the HTML colour range cyan.</td>
</tr>
<tr>
<td>Blue</td>
<td>Based on the image processing result of IMGonline.com.ua, the dominant colour is defined, and the RGB code of the colour belongs to the HTML colour range blue.</td>
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### Emphasized text

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<td>Text on the picture or photo takes 50% or more of the space.</td>
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### Milk/Dairy appearance:

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</table>
9.3. Pre-selection questionnaire

1. Are you a regular dairy product consumer?
   YES / NO

2. Do you use at least one of the following media on a daily basis? Television / internet / print media?
   YES / NO

3. You were born:
   After 1983 / In or before 1983

4. What is your highest education?
   Primary School / High School / College, University

5. Name:
   E-mail address:
   Cell phone number:

9.4. Focus Group Guide

I. Warm up (10 minutes)
   Please introduce yourselves in a few sentences.

II. Entering questions: Dairy consumption habits (15 minutes)
   Do you consume dairy products? If yes, how often, what kind of products do you consume? If not, why not? Do you consume milk alternatives, such as plant based milk?

III. Expressing views on pro and con dairy campaigns (90 minutes)

1. Can you please describe a static pro milk/pro dairy campaign photo, that comes to your mind? Please write down a few words and thoughts about it.

2. Can you please describe a motion picture pro milk/pro dairy campaign video, that comes to your mind? Please write down a few words and thoughts about it.

3. Can you please describe a static or motion picture con milk / con dairy campaign photo, that comes to your mind? Please write down a few words and thoughts about it.

   (The examples provided by the volunteers are a tool to clarify amongst the participants what kind of pro and con campaign photos and videos exist on the market. The examples share as a tool to look back on previously known campaigns later on.)

4. These companies have all made campaigns for or against milk consumption. Can you put them together in separate groups of PRO and CON based on your impressions and previous knowledge?
Con: PETA, Physicians Committee, Mothers Against Dairy, Viva!

Pro: Milk Life, Dairy Farmers, Coca Cola, Got milk?

Do you agree with the sequence? How do you know which company belongs to which group?

(This task is about to examine the previous knowledge of pro and con dairy campaign providers of the participants)

5. What do you think about the campaign photos of the companies? Tell a few words about your opinions.

(This task is to make the participants to share the thoughts about the various campaign photos provided by the above sorted companies. The opinions of the photo analyses will be used later on).

Examples:

6. Video watch: https://www.youtube.com/watch?v=ngRuqEhCE0k
Please choose and write down one characteristic to the:
7. Among the characteristics you have written down before, choose 5 that are the most important factors for a successful pro milk campaign, and put them in order together. The first one is the most, the last one is the least important factor.

Do you agree with the sequence? How have you decided which factors were the most important ones?

8. Video watch: https://www.youtube.com/watch?v=FM95_k9onEc

What do you think about the video? What are your first impressions?

9. Based on the video that we watched, how much do you agree with the following statements?
I totally disagree 1 2 3 4 5 6 7 8 9 10 I totally agree

- The ad was original.
- The ad was creative.
- The ad was informative.
- Milk as a product had a positive connotation.

10. Video watch: https://www.youtube.com/watch?v=SvvLsAMsOJM

Please share 3 thoughts on what is essential in your opinion for a successful con milk campaign.

11. Group Task: Create a pro dairy campaign photo

Together you are creating a pro dairy billboard, that will be placed at Ferenciek tere, Budapest. It will be 3 meters high, and thousands of people will see it each day.

What are the elements that you use?

12. Group Task: Create a con dairy campaign video

Together you are creating a con dairy video, that will be 1 minute long. It will be seen both on YouTube and on television. Just as before, it will be seen by thousands of people each day.

What are the elements that you use?

13. Conversation

Based on what you have seen and your prior knowledge, can you point out aspects that:
- would encourage you to consume milk.
- would encourage you to leave milk.

IV: Closure (10 minutes)

Do you have anything else to say on the subject or anything you would like to share?

9.5 Discussed ideas in different groups

Discussed Pro Dairy Campaign Ideas:

Pro Dairy Group: