

Conceptualization and measurement of consumers' objection to dairy products consumption in Israel: understanding and relating to anti-dairy products propaganda

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Conceptualization and measurement of consumers' objection to dairy products consumption in Israel: A new approach for understanding and relating to anti-dairy products propaganda.

Abstract

In recent years, a wave of antagonism to dairy products is gaining impact in Israel, as well as all over the world. The current study analyzes anti-dairy products consumption messages which are spread all over the Israeli internet networks. A qualitative and quantitative analysis of 76 items, including videos, photos, articles and content pages identified two types of themes, informational theme and emotional theme, and mutual interaction between them. In a discussion conducted among experts, five meaningful issues, which characterize the objection to dairy products, were formed: medical theme, economical theme, moral theme, ecological theme and a theme which relates to milk substitutions. Analysis of a questionnaire developed for the purpose of this study, showed that these themes were meant to elicit four specific emotions: surprise, parental concern, anxiety and anger, as disgust, empathy and hope were found to be correlated with these themes. The suggested scientific model in this article enables analyzing the construct of different type of propoganda and advertising, and also enables to understand how individuals and organizations that want to promote a certain agenda, can influence the public's nutritional habits.

Keywords: objection to dairy products; advertising; emotional appeal; informational appeal; nutritional habits

Introduction

Food marketing and advertising helps the public to become aware of foods and drinks in the market (Chandon & Wansink, 2012). However, advertising which is aimed for encouraging or reducing consumption of certain foods may influence on eating habits of numerous households (Chandon & Wansink, 2012). Consequently, the public receives certain messages which are aimed for eliciting certain behaviors, such as consumption of certain foods or avoiding consumption of certain foods. In recent decades, there is a growing advertising against consumption of milk and dairy products, and in a literature search, we did not find any articles which dealt with the components of the objection to dairy products. In the current explorative study, we sought to characterize the main resistance lines against this health behavior. Since the objection to dairy products consumption appears mostly on the electronic media, this preliminary study suggests methods of analyzing viral videos, presentations, articles and propoganda interviews calling for a change in attitudes and behavior.

A survey among 500 Israeli subjects, carried out in February 2013, indicated that exposure to media messages (internet, press, TV) of the dairy consumption is high and unbalanced. Most respondents were exposed to messages opposing to milk consumption (40% exposed to the messages against milk, compared to 7% that were exposed to messages that supported the consumption of milk). It was also found that exposure to online messages had a very significant impact on attitudes towards milk. (For the results of the survey see Appendix A). Having identified that the main arena for messages opposing to milk is social media, the current study focuses on key messages distributed in the internet networks, over the last decade (2003-2013). Accordingly we sampled items that included videos, photos, articles and content pages of sites that oppose to milk and dairy products. Then we conducted a content

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2
3 analysis of the messages by dividing them in to two types of themes: informational
4
5 and emotional (Janssens & De Pelsmacker, 2005; Miceli, de Rosis, & Poggi, 2006).
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8 The first phase of the analysis focused on mapping Informational themes (including
9
10 presenting facts, figures, studies, examples and comparisons) in the campaigns against
11
12 milk. To do so, an identification of the main arguments raised from the items was
13
14 made, then grouping them to key themes and defining each theme. In the Second
15
16 stage a quantitative analysis was conducted of each item by a questionnaire developed
17
18 for the purpose of the current study. Two researchers were asked to rate how much
19
20 did each item try to appeal to knowledge and how salient was each theme. In addition,
21
22 an analysis of emotional themes was conducted by rating the extent to which each
23
24 item was designed to evoke emotions. Using this mapping we developed a two-
25
26 dimensional chart. The first dimension describes the "Informational themes". The
27
28 second dimension of the tool is "Emotional themes". We assume that there is a
29
30 synergetic interaction between the two types of themes.
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35 **Models of persuasion and attitude change**

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38 The proposed tool assumes that in order to reduce dairy products consumptions one
39
40 needs to first change attitudes towards them. Attitudes include cognitive behavioral
41
42 and emotional components (Eagly & Chaiken, 2007). The next section will present a
43
44 basic model of persuasion to change in attitudes, and will review the current
45
46 developments in this subject, which will be used as a theoretical framework for a toll
47
48 of analysis of opposition towards milk.
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51
52 The Elaboration Likelihood Model is a basic model, designed to analyze persuasive
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54 messages, which was developed by Petty & Cacioppo (1986). Elaboration Likelihood
55
56 model divided the message processing into two routes – a central route and a
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3 peripheral route. According to the model, if the recipient has enough motivation and
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5 ability to process the persuasive message, the processing will occur in the central
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7 route, which is cognitive, objective and leads to a careful evaluation of the quality of
8
9 the message. If the recipient lacks motivation or processing capability to the subject,
10
11 the processing will occur in the peripheral route, which is emotional, not rational, and
12
13 based on external characteristics of the message and not the content (e.g. the
14
15 attractiveness of the speaker) (Petty & Cacioppo, 1986).
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17

18
19 Today, current theories which were developed from the elaboration likelihood model
20
21 give the emotional persuasion a more central place. Emotions are no longer in the
22
23 status of "peripheral route." Instead, current studies assume that there is a division
24
25 between "Emotional themes" and "Informational themes" (Janssens & De
26
27 Pelsmacker, 2005; Miceli, de Rosis, & Poggi, 2006). Emotional themes are designed
28
29 to evoke certain emotions in the viewer, attempting to highlight specific emotions
30
31 related to the subject in hand (e.g. fear, empathy, pride). In contrast, Informational
32
33 themes are designed in order to stimulate a thinking process. The messages contain
34
35 knowledge, facts and information. For example, statistics, logical arguments,
36
37 examples and comparisons that support a particular claim (Kaid & Johnston, 1991).
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39 While emotional themes are designed to evoke emotions, informational Themes are
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41 intended to stimulate thought and rational comparison between the arguments of the
42
43 campaign and the viewer beliefs (Zinn, 1988).
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49 Following the division to themes, a question arises whether the distinction between
50
51 emotion and thought applies to the impact of the appeal? That is, whether emotional
52
53 appeal raises only feelings or also cognitive processes? And vice versa, is
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55 informational appeal "clean" from emotional processes? Due to the complexity of
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57 human responses and lack of a clear separation between emotional and cognitive
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3 processes, it is difficult to sharply separate between the types of effects of the themes
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5 (For further discussion, see Edwards, 1990).
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9 However, since the current study focuses on the characteristics of the message rather
10 than the way it is accepted, we will focus on the distribution to informational and
11 emotional themes, according to the salient features of the message itself. Similarly we
12 will consider combinations between the two types of themes, which are designed to
13 enhance and promote the effectiveness of the messages. Many studies found that a
14 combination of two types of themes yielding interaction manifested by mutual
15 empowerment which increases the overall impact of the messages. For example,
16 studies in advertising (Janssens & De Pelsmacker, 2005), politics (Marmor-Lavie G,
17 Weimann, 2005), psychology (Omer, Winch, & Dar, 1998), and food preferences
18 (Miceli, de Rosis, & Poggi, 2006) have found a more effective impact of the message,
19 when the informational and emotional themes were combined.
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33 Informational themes 34

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36 “Cognitive Persuasion”, which “informational themes” are a mean in it's
37 service, is a process similar to conscious learning processes in other areas.
38 Accordingly, it is designed to elicit cognitive processes such as thinking,
39 understanding, acceptance and retention of the presented arguments (Albarracín,
40 2002). According to these definitions, the current tool is based on (Janssens & De
41 Pelsmacker, 2005; Miceli, de Rosis, & Poggi, 2006) informational themes provide
42 information and focus on the facts about the attitude object .The prominent means in
43 informational themes are facts, statistical data, empirical studies, logical inferences,
44 examples, comparisons etc. Because resistance to milk is branched and uses
45 arguments from different fields, the first phase is intended to unravel the thematic
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3 fabric to it's' elements. To do so, a sorting of the arguments was conducted and they
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5 were grouped and defined by groups of meaning of key themes. This part of the tool
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7 was designed to provide answers to questions such as "what are the key themes of the
8
9 opposition to dairy products"? , " how often, how strongly and in what contexts, are
10
11 they used in the sampled items?".
12

13 14 15 Emotional themes

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17 Emotional arousal was found to be a key determinant directing attention,
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19 memory processes, motivation, and preparation for action, design of goals, changing
20
21 attitudes and changing consumer behavior (Batra & Ray, 1986; Kensinger, 2009). The
22
23 current study focuses on persuasion by stimulating specific emotions in high intensity,
24
25 assuming the emotional intensity of the message creates stress responses, shock and
26
27 paralysis among its consumers, as well as the manufacturers and marketers of milk
28
29 and dairy products. The Research in the field of emotional themes, focused so far
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31 mainly on Fear themes (for meta-analysis, see Witte & Allen, 2000 or emotional
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33 themes - in general Miceli, dRosis, & Poggi, 2006). Recently, studies have begun to
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35 examine the impact of specific emotional themes, such as disgust (Morales, Wu, &
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37 Fitzsimons, 1991), empathy (Aaker & Williams, 1998), guilt, shame (Brennan &
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39 Binney, 2010) and others. In recent years, studies have begun to develop content
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41 analysis of political campaigns aimed at mapping themes designed to evoke specific
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43 emotions systematically (Marmor-Lavie & Weimann, 2005).
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49
50 So far there were no studies of specific emotional themes in social marketing
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52 campaigns in general, and in the subject of resistance to milk in particular. The
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54 current paper proposes a primary tool for identification of dominant emotions that
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56 these campaigns seek to stimulate and discuss their impact. It is designed to provide
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3 answers to questions such as: "Which emotions milk opponents seek to evoke?"
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5 "How intense is each emotion?" "What are the dominant combinations of specific
6
7 emotions and key themes?" and so on.
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10 **Method**

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12 *Participants.* A leading internet survey company was assigned to locate the suitable
13 participant for this study. The participants were randomly recruited to the survey from
14 a pool which contains more than 10,000 people a group of 502 subject was chosen.
15 All of whom were Hebrew speaking aged 18 and above. In order to prevent statistical
16 bias we you used random assigning .First, a unique program selected the names, and
17 then the potential participants were asked for demographic information, such as age
18 and residence in order to provide a reliable sample, which includes different age
19 groups from different areas. Each participant received an invitation to answer on an
20 electronic survey, and once he agreed, he was required to sign an electronic form of
21 informed consent. Participants who answered on the survey receive points, which they
22 can exchange to gift vouchers. This methodology is prevalent today in most of the
23 opinion polls in marketing and politics.
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40 *Sampling Method.* The sample included 76 sources of information of three types. A
41 search of two web search engines, goggle and ask.com., yielded results which
42 included videos sites, such as youtube, flix, and vimeo. 26 videos (including filmed
43 reports, interviews, and excerpts from the radio). The inclusion criterion for the video
44 was over 300 views. 40 subject images (including posts and comments) as the
45 inclusion criterion was over 40 "shares". These relatively small numbers were
46 selected since Israel is a relatively small country. The last source of information
47 included ten articles and home pages of sites. The three types of sources ware aimed
48 to create a comprehensive sample representing the diverse resistance channels.
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Procedure. In order to form a two-dimensional tool that includes one axis of Informational themes and one axis of emotional themes, a multi-step analysis was conducted. It included both qualitative and quantitative aspects. In the first step we conducted a discussion between experts, in order to identify and define the key themes that emerged from the items. The key themes are meaning groups of informational themes and they appear on the horizontal axis of the tool. Next, we developed a questionnaire, based on the thematic definitions formulated in the first stage, and on the division to emotional versus informational themes (for the structural analysis of effect see Appendix B). Two judge's blind to the purpose of the study analyzed the sample items according to the questionnaire. Then statistical analysis was conducted in order to create a two-dimensional tool and to address the following questions:

How central was each key theme in the sample?

What typical combinations between themes were found in the items?

What are the most dominant emotions that the items were aimed to evoke?

Step one: informational themes - identifying and defining key themes of the milk resistance.

This step was based on qualitative methodology of content analysis by experts. The analysis was conducted individually by three judges that are content experts – Dr. of Psychology and an expert psychologist, a senior organizational consultant and a senior clinical dietitian. The experts viewed the items and wrote down the central thematic arguments they identified. Then each expert gathered all the arguments and sorted them to meaning groups (primary categories). After the individual analysis, a discussion was held by the method of "constant comparison" among judges. The

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3 discussion was held in a spiral form, meaning 'back and forth' between the arguments
4 identified and the definitions offered until saturation and consensus among the judges
5 on the division and definitions were obtained (Strauss & Corbin, 1990; Sabar Ben-
6 Yehoshua, 1999).
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11 **Step Two: Analysis of informational and emotional themes.**

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13 The second stage of detection was conducted by identifying the means of impact by
14 two new judges 'blind' to the research purposes. This Stage was based on quantitative
15 methodology of analysis of a questionnaire that was developed specifically for the
16 purpose of the study. The analysis was conducted under the guidance of the
17 researchers who presented the sources to the judges and then each judge answered
18 individually by filling a table of coding according to the analysis questionnaire (see
19 table 1). The questionnaire included two parts - the first part focused on the
20 informational themes identified in the first phase. The second part analyzed emotional
21 themes. The judges received the settings and were asked to rate how prominent was
22 each informational appeal (0 = no appeal, 1 = some appeal, 2 = strong appeal) based
23 on analysis of translation and adaptation of content questionnaires of political
24 campaigns (Brader, 2006; Ridout & Searles, 2011).
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42 In the second part of the questionnaire, the judges were asked to rate - to which extent
43 in their opinion the item they saw attempted to evoke a series of specific emotions on
44 a scale ranging from 1 = not at all to 9 = in very strong. The list of emotions was
45 selected based on content and on a combination of emotions proposed in the
46 "emotional response questionnaire" by Rottenberg, Ray and Gross (2007) and
47 emotions in the model of political content analysis of Marmor-Lavie and Wyman
48 (2005).
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(Table 1 around here)

Results

Formulation of the model

As expected all sources are aiming both at knowledge ($M = 1.7$) and at emotion ($M = 1.4$) of high intensity. Informational themes - the five themes in the horizontal axis of the tool are the main meaning groups of informational themes of opponents to milk, which were identified and defined in the discussion between experts. These are their definitions:

1. Medical theme - biological, health and medical arguments denouncing milk. The medical theme includes three major internal issues:

1. A. -The inadequacy of dairy products for the consumption of adults. An example of such argument is: "humans are the only animal that consumes milk after infancy".

1B. Denying the health benefits of milk products. An example of such argument is: "milk robs calcium from the bones."

1C. – Presenting dairy products as the cause of diseases and various medical problems. An example of such argument is: "milk causes osteoporosis."

2. Economic theme - arguments that focus on the interest of profit of the milk producers, the tycoons and global companies. Individual and general allegations of biased and false advertising. An example of such argument is: "someone financially pushes the dairy products to the market."

3. Moral theme - arguments about the treatment of cows and calves in the dairy industry. Some arguments reflect the opinion that animals are not meant for the use of

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3 human beings at all (animal rights). An example of such argument is: "milk is
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5 produced for the calf and not for us." Some arguments reflect specific issues dealing
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7 with the living conditions of animals in the dairy industry in Israel and worldwide
8
9 (animal welfare). An example of such argument is: "one third of the cows suffer from
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11 udder infection. The cows are not well treated".
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15 4. Ecological theme - arguments on damage to Planet Earth following the impact of
16
17 the dairy industry. Focus on air pollution, soil pollution and damage to the water
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19 economy. An example of such argument is: "the dairy barn is a potential source of
20
21 environmental hazards"
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25 5. A theme of substitutions- arguments which call for the substitution of dairy
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27 products. Those arguments include details about replacements that are on the market.
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29 For example, a recipe that instructs how to make almond milk.
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32 Emotional themes- two judges were asked to rate how much they thought each source
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34 tried to evoke a series of specific emotions. We used the average ratings of the 12
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36 emotions of the two judges for all 76 sources of information. The threshold criterion
37
38 for the tool was emotions with a mean or median rated at least as 4 (on a scale from 1
39
40 to 10). Surprise was rated with average grade of 7.05, median 7. Parental care was
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42 rated an average grade of 5.84, median 6. Anger rated an average grade of 5.6,
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44 median 6. Anxiety was rated an average grade of 4.94, median 5.
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49 Thematic distribution of informational themes: in order to examine the internal
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51 division, a weighted sum of the salience ratings of each theme over all sources of
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53 information was conducted. It was found that 57 of the themes included a medical
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55 theme, 43 themes included an economic theme, 22 themes included a moral theme,
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57 eight themes included ecological themes and 11 themes included a substitutions
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3 theme. The relative proportion of each theme in opposing to milk in all sources is
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5 presented in figure 1.
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8 **(Figure 1 around here)**
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14 Thematic combinations: quantitatively the most common combination found varied
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16 between two themes (32 items), then items that included one theme (25 items), items
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18 with 3 themes (13 items), items with 4 themes (4 items), and two items included five
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20 themes. The relative proportion of the number of themes in an item in the entire
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22 sample is presented in figure 2. In terms of content, the most obvious combinations
23
24 found in the sample were between medical and economical themes (37 items) and
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26 between medical and moral theme (16 items).
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30 **(Figure 2 around here)**
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34 Other emotions: after selecting the four central emotions - surprise, parental care,
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36 anger and anxiety found in all the themes, an attempt was made to identify additional
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38 specific emotions which campaigns opposing to milk tried to evoke. For this purpose,
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40 averages of emotional ratings by specific themes were conducted. We found three
41
42 more specific emotions that were salient in specific themes: Disgust and Empathy
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44 were significant for the moral theme (Disgust- $M= 4.23$, Empathy - $M= 5.95$).
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46 Disgust was also found to be dominant in the medical theme. Hope was dominant in
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48 the substitutions theme ($M= 4.47$).
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51 **Discussion**

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56 The presented analysis is designed to break down the resistance to dairy
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58 products into its components and to reveal the techniques of persuasion that cause the
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3 impact on the audience of consumers and producers of milk. The rationale for the
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5 analysis was that the most suitable way to formulate a response to arguments with
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7 high negative emotional intensity is to know them and understand them and study the
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9 way they are designed. Therefore, we collected the messages designed to elicit stress
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11 and distress among consumers of milk and harm the dairy industry as a whole, and
12
13 pass them through a systematic analysis, to identify the main arguments, the emotions
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15 they were designed to evoke and the combinations between the arguments and
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17 emotions. This analysis resulted in a formal tool with two dimensions – informational
18
19 and emotional themes. Using this tool enables analyzing any message against dairy
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21 products, old or new advertisements. The tool maps its components quickly and
22
23 efficiently. It is applicable for various entities seeking to understand the ways of the
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25 impact of the messages opposing to them, and allows developing scientific strategies
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27 of effective response.
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32 The Importance of the tool: First, the current tool allows distinguishing between the
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34 different themes used by the opponents of milk, which are often mixed. By dividing
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36 the resistance to five content groups - medical, economic, moral, ecological or
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38 providing substitutions arguments, in the informational appeal axis, we can examine
39
40 the attempts to introduce new arguments on a daily basis, and show how they
41
42 systematically repeat themselves. Secondly, the expansion of the emotional analysis
43
44 of fear allows revealing a series of several specific emotions - surprise, parental care,
45
46 anger, anxiety, disgust, empathy, and hope. The basic assumption concerning the
47
48 emotional themes was that they were intended to increase the impact of the messages,
49
50 depending on the mechanisms of emotional response described later. Thirdly, the
51
52 structure of the tool allows to identify typical patterns of combinations between
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54 informational themes and emotional themes spread as The matrix of Influence .This
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3 structure allows to quickly and clearly map different items (movies, pictures, articles)
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5 and respond to them accordingly. For example, if an advertising trend of integrating
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7 medical and economic themes will be identified, evoking surprise, parental care and
8
9 anger, it will be possible to choose an appropriate response that will focus on
10
11 dismantling these feelings and arguments.
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15 **Appeal to specific emotions** The strongest emotion which was dominant in all the
16
17 key themes was surprise. All informational themes are intended to evoke the viewer to
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19 feel a sense of surprise by framing the information as the exposure of corruption,
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21 cover-ups and dark interests while undermining the previous assumptions about milk.
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23 Surprising contents stay in mind, and allow undermining existing patterns in the most
24
25 effective way to change attitudes (Omer, 1990). Two additional emotions found
26
27 dominant in campaigns are parental concern and anxiety. Campaigns opposing to milk
28
29 focus on the "sensitive spots" of viewers and try to evoke worry and anxiety towards
30
31 their children. Meaning , in addition to the destabilizing effects of the surprise, there
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33 was an attempt to arouse worry and anxiety, emotions of negative value, that cause
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35 high arousal and motivation of avoidance (Harmon-Jones, Harmon-Jones, Amodio, &
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37 Gable, 2011).
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42 The parental context influences primary instincts and is designed to create a general
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44 lasting negative mood drop that would cause the viewer to absorbing the messages.
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46 Therefore it can be understood why the sources were rated as evoking anxiety which
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48 was defined to the judges as a sustained and long lasting sense of fear and not just a
49
50 temporary threat. The fourth emotional factor of the tool is anger. Anger, like worry
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52 and anxiety, is classified as an emotion with a negative value and high arousal, but
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54 unlike them its motivation is to approach and not withdraw an action (Harmon-Jones,
55
56 Harmon-Jones, Amodio, & Gable, 2011). Evoking anger in the campaigns is designed
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3 to stimulate a call to action and confrontation, as in this case the action is
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5 replacements consumption and the distribution of propoganda.
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8 Specific emotions in specific themes: In addition to the dominant feelings for the key
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10 themes, three emotions that the campaigns aroused in specific contexts were
11
12 identified: Disgust, empathy and hope. Disgust is defined as a reaction of strong and
13
14 immediate aversion usually with regards to food. Physiological reactions of nausea
15
16 and typical facial expression of rejection are attributed to disgust (Rozin and Fallon,
17
18 1987). Additional excitation of disgust towards dairy products in moral and health
19
20 context, by highlighting the visualization of elements such as "pus cells", feces in
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22 dairy barns, etc. is designed to provoke a strong , immediate, and certain reaction
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24 that has a lasting effect of rejection towards milk.
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29 Appeal to empathy is designed to stimulate pro-social behavior towards perceived
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31 victims. It induces the sense of fear and disgust in order to increase the effectiveness
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33 of these feelings. The last emotion identified in the context of providing replacements
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35 was hopeful appeal. It includes optimistic appeal for the future, with an emphasis on
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37 changing the existing situation (Marmor-Lavie, & Weimann, 2005). The stimulation
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39 of hope is made by the "Satan" technique. This technique helps to stimulate hope
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41 following painting a diabolic portrait of a subject (Lasswell, 1971). In this context,
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43 campaigns that negate dairy products refer to the milk industry as one entity, and
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45 create personal demonization of specific individuals. After presenting the dairy
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47 industry in a negative light as an "enemy", the presentation of milk substitutions is
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49 designed to inspire hope for the future, through belonging to a group of opponents and
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51 a call to be active in the continuing fight against dairy products.
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3 **Implications:** The most dominant emotion found in the content analysis of the
4 messages against dairy products consumption was surprise. In addition, many of the
5 items were found to have a goal of evoking emotions with a negative value and a high
6 degree of arousal (anger, worry, anxiety, and disgust). Such negative emotional
7 intensities create an emotional and physiological stress situation, which naturally
8 causes panic, surprise, shock, paralysis, and a desire for avoidance and protection. The
9 present study offers the first stage of a recovery process for consumers and for milk
10 organizations from the high negative emotional intensity of the messages. The current
11 content analysis allows reducing the level of stress and paralysis that the intense
12 emotion of the messages of opponents to milk. Recognizing the typical arguments and
13 emotions, enables us to turn to specific scientific information and tools in order to
14 immune the consumers against persuasion via stress reaction. For example, the
15 analysis can be used in order to implement techniques of psychological inoculation
16 against pressure offered by (Michnbaum, 1985). Additionally, after identifying the
17 arguments, a response strategy can be fitted so that it will promote conscious ad
18 viewing and critical evaluation of the persuasion arguments. It also enables an
19 appropriate use of emotion in order to immune against the powerful emotional
20 persuasion identified (Pfau, Szabo, Anderson, Morrill, Zubric, & Wan, 2001).
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43 The current method can be used as a relevant tool for analyzing other propaganda
44 fields that are in contrast to conventional medical recommendations, such as the call
45 for avoiding children vaccines or the objection for the use of statins for lowering
46 cholesterol levels. A tool of this type will enable systematic and critical analysis of
47 future new message attacking diverse health behaviors. The presumption of the study
48 is that informational messages which are charged with high emotional intensity create
49 emotional and even a physiological stress response that may overwhelm the customer
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3 (Meichenbaum & Turk, 1976). The message, which is experienced as an attack on
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5 knowledge and emotion and causes anxiety or functional paralysis, raises the need to
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7 create defense against the “attack”. Analysis of messages using a critical-scientific
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9 prism is designed to dissolve the emotional intensity and to allow the public to be
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11 aware of the methods used by those who object to dairy products consumption.
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15 By conducting a content analysis of the arguments and the channels of influence, we
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17 seek to restore the control of the situation to those establishments that are being
18
19 attacked, thus forming the foundation on top of which they will be able to develop
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21 appropriate scientific and effective responses attacks on them and their products.
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23 Using this tool, each campaign can be fragmented into informational and emotional
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25 components, in order to better understand the messages in a much more rational and
26
27 detached manner. In this way the analysis is aiming not only for theoretical and
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29 descriptive purposes but also at providing practical road map for addressing the anti-
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31 milk propaganda.
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36 **Limitations:** This study suggested a primary tool for mapping and identifying
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38 messages which oppose and negate dairy products consumption. Further studies
39
40 should explore and analyze the impact of every theme and every emotion, and focus
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42 on the development of the preferable and most appropriate response towards each
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44 component and combination. This initial study focused on the content analysis of
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46 messages against the consumption of milk, but it did not investigate the recipients of
47
48 the messages and the addressers of the messages, directly. In the analysis
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50 questionnaire, the judges evaluated how each item was designed to appeal to
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52 knowledge, and to evoke specific emotions. However, no examination was made
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54 concerning the direct effect of the messages on the recipients, the consumers'
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56 audience. Future studies should focus on the message recipients for examination of
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3 the direct influence through focused groups that will watch the items, and than discuss
4 their influence. In addition, focus groups of consumers who were affected by the
5 messages and changed their nutritional habits should be explored. As mentioned, this
6 study did not include an analysis of the characteristics of individuals and
7 organizations that negate dairy products, nor of their goals and their motivation
8 towards the issue. Therefore, consumers, animal rights groups, and professionals, such
9 as physicians, dietitians and naturopaths, that call for avoidance from milk and dairy
10 products should be interviewed.
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22 **Source of Funding:** the study was funded by the Israel dairy board.

23
24 **Conflicts of Interest:** the second author is the Chief Health Officer at the Israel Dairy
25 Board.
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21 **(Appendixes around here)**
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Tables and figures

Table 1. A tool of analysis of influence techniques used by those opposing dairy products consumption in Israel

alternatives theme	Ecological theme	Moral theme	Economical theme	Medical theme	informational appeal
The matrix of influence					emotional Appeal
					Surprise
					Parental care
					Anger
					Anxiety

Figure 1. Thematic distribution of informational themes

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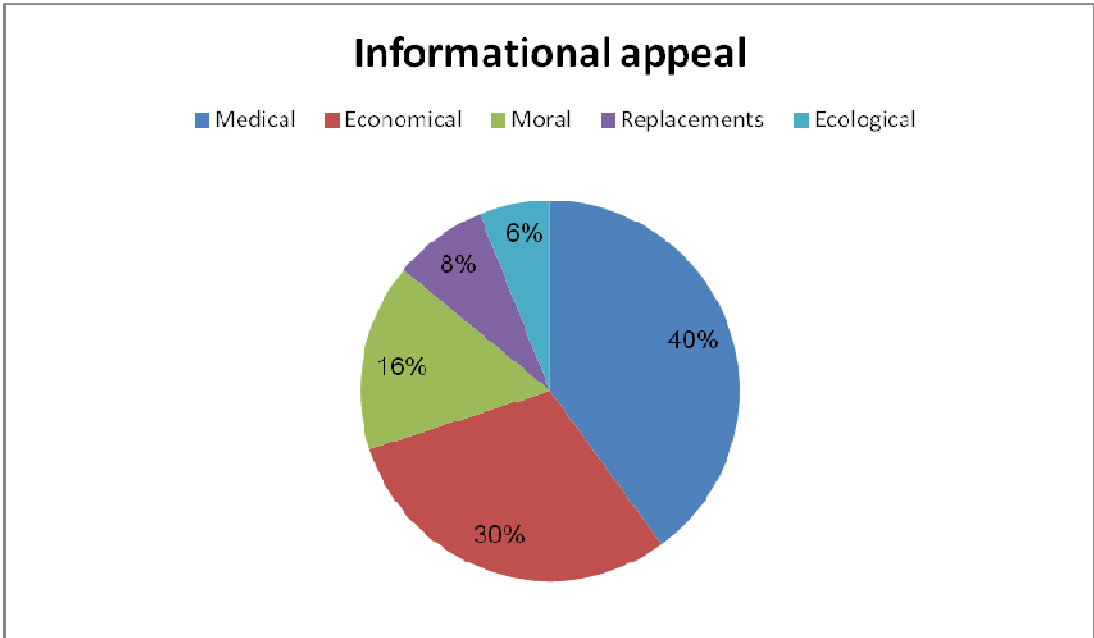
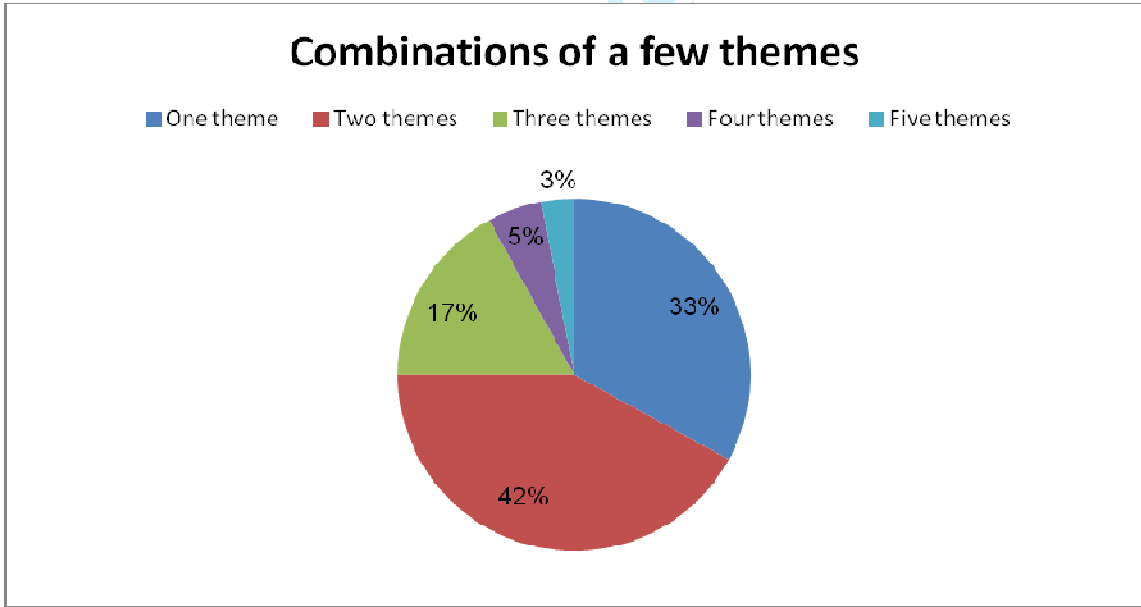


Figure 2. The relative proportion of themes

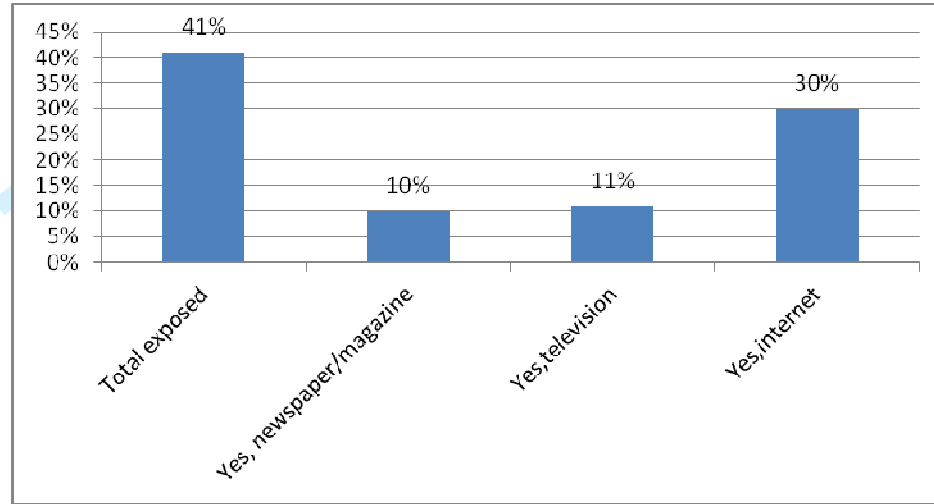


Appendixes

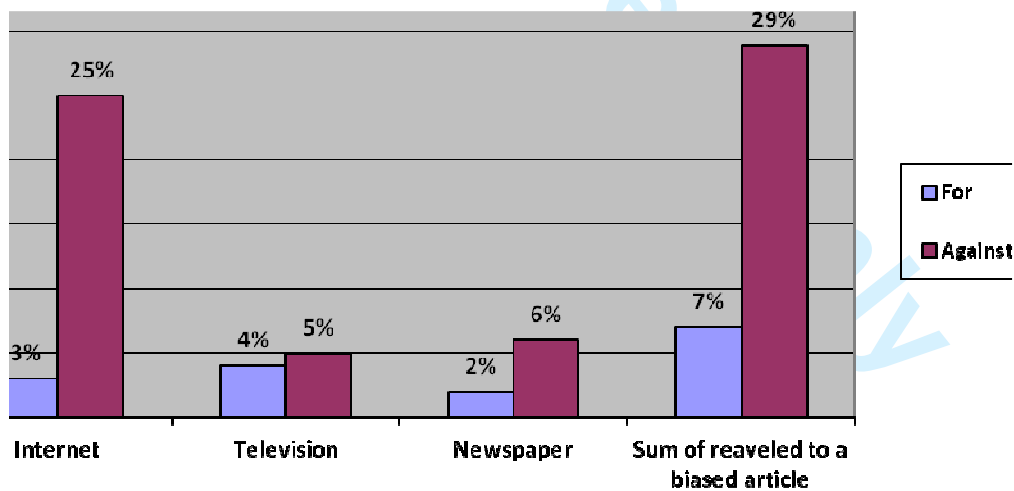
Appendix A

Survey of public attitudes towards dairy products (Jan. 2013)

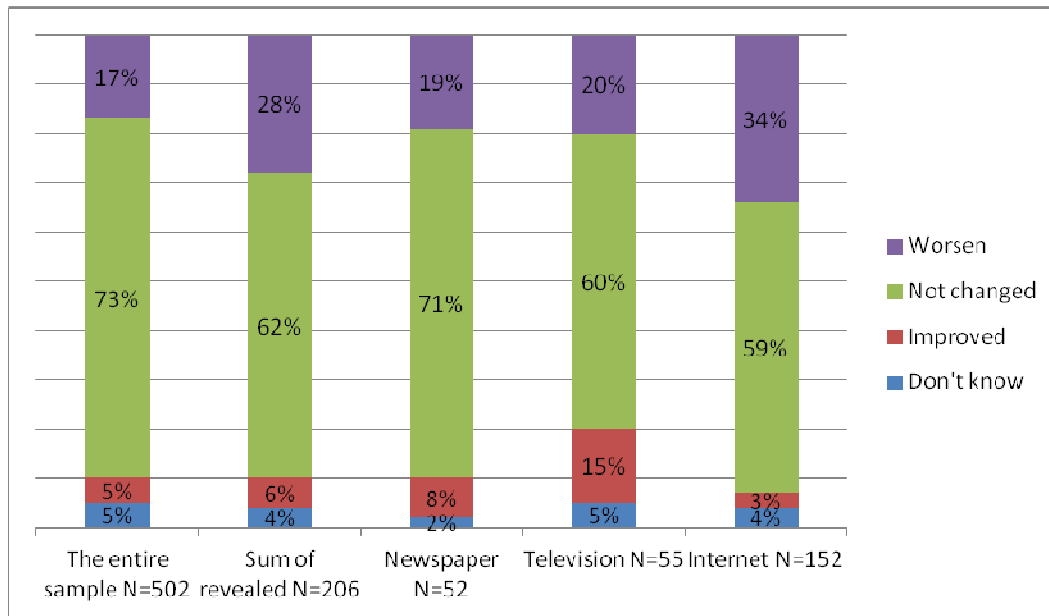
The degree of exposure: Have you seen, heard or read recently about articles, videos and publications on the health impact of dairy products?



Type of exposure: Did the source speak for or against the consumption of milk?
 "(Jan. 2013)



The impact of media exposure on attitudes towards milk: Overall attitude towards - cow's milk and dairy products in the past year (Jan 2012- Jan 2013)



Appendix B

Table of sources of information:

Sample of Videos photos and articles (Marked yellow- clips that were uploaded during March 2013). For elaborated table of content please approach the author

No.	length	Link to the site	Date	Item name	No
5975		http://www.youtube.com/watch?v=T_rAXJQLOC0	20.11.09	Removing milk products from the menu	1
5998	06:13	http://www.youtube.com/watch?v=Svyeiizff3k	22.5.07	The dairy industry	2
281,305	06:31	http://www.youtube.com/watch?v=IwFgEEW12X0	31.12.11	Does anyone still believe Strauss and Tnuva (Dairies) advertisements?	3

289	00:58	http://www.youtube.com/watch?v=DfFfhSvIT-w&list=PLdHasaQqK3w15JW0s0wwbP2owVScF3Fr0	7.3.13	Do you get a gift basket from Tnuva every year?	14
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Photos from the Album Timeline of the Facebook group "Milk- Facts or Myths": <http://www.facebook.com/media/set/?set=a.477832365571442.98040.477820532239292&type=3>

Number of shares	Picture number	Release Date	Name	Number
58	8\7	11.9.12	From the album: "Pus"	1
80	60	22.8.12	Dear children	2

Articles and content pages:

Release date	Link	Name	Item number
9.12.12	http://www.ynet.co.il/articles/0,7340,L-4315949,00.html	A doctor reveals	1
	http://anonymous.org.il/cat21.html	Milk: Cows and calves	2
	http://anonymous.org.il/art694.html	The Greenhouse Effect	3

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