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Fighting Fat: The Role of 'Field Experts' in Mediating Science and Biological Citizenship

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ABSTRACT *Diet, fitness, and healthy living have become popular topics of media coverage and public health campaigns. Stories about the health hazards of fat draw heavily on scientific knowledge, the expertise of scientists and medical doctors, and increasingly on new field experts such as nutrition consultants and personal health trainers. A case study of an anti-fat campaign—the* Fat Rebellion*—run by Finland's biggest daily newspaper* Helsingin Sanomat*, shows that field experts have become important mediators of scientific expertise. Nutrition therapists, personal fitness trainers, lifestyle coaches, and other field experts were the most cited actors in the campaign. The field experts promoted dietary foods, guidance, measurement technologies, and health training. The field experts in the* Fat Rebellion *also acted as mediators of biological citizenship: participants of the campaign were encouraged to take a greater responsibility for their health and vitality. Compared to scientific experts, field experts did not appear so much as sources of scientific information, but instead as authorised users of that information and specialists of employing commercial health technologies. They give advice and encourage citizens to record their weight and offer detailed prescriptions of healthy lifestyles. This combination of theoretical and practical knowledge as well as their daily or weekly face-to-face relationship with people in quest of healthy lifestyles makes them powerful mediators of biological citizenship.*

KEY WORDS: health, media, experts, biological citizenship, obesity

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Introduction

Health and lifestyle issues have attracted growing media interest in the past decade. Stories about the health hazards of fat draw heavily on scientific knowledge, the expertise of scientists and medical doctors, and, increasingly, on nutrition consultants, personal health trainers, and lifestyle coaches. We have coined a new category of field experts to focus on these mediators of scientific and technical information.

The increasing research on how the human body works and its diseases has impacted patterns of social control. Statistics on the costs associated with the treatment of cardiovascular and musculoskeletal diseases have motivated science popularisation campaigns aimed at reducing illness and premature mortality in the population. The fight against fat has also evoked discussion about a 'fat tax' for unhealthy foods or penalty payments charged to obese people.

Health and lifestyle have become issues of day-to-day politics, with smoking, diet, and other lifestyle behaviours which used to be matters of individual choice now subject to social control. This interest has been fuelled by recent advances in science and technology. In this process, discourses grounded in medical and biomedical expertise have spread to new spheres of life (Beck-Gernsheim, 2000; Petersen and Bunton, 2002; Helén, 2004; Rose and Novas, 2005).

According to Gilman (2008), obesity was defined as a 'new public health epidemic' in public discourse in the USA in the late 1980s. Since then, obesity has become a major public health issue worldwide. The common definition of obesity as an epidemic has evoked a powerful metaphoric connection to contagion. Although obesity is not a disease in itself, it is often represented as a disease to be cured. Gilman argues that 'the moral panic about obesity seems to have filled a gap left by the restructuring of the moral panic about AIDS' (2008, p. 22). There is a lot of money and interests involved in the fight against obesity in terms of medical research and pharmaceutical companies, health food industries, weight loss and fitness training, self-help literature, and so on.

Previous research on the media discourse of obesity suggests that it is 'frequently presented in the media as an "epidemic" with long term health and economic ramifications' (Henderson *et al*., 2009, p. 1402). In addition, 'media coverage more often focuses on behaviour-change-orientated solutions (i.e. diet and exercise change) as opposed to system-level or policy changes' (Collust *et al*., 2012, p. 1545). News reporting tends to dramatise and moralise obesity as a social problem (Saguy and Almeling, 2008).

Our analysis of the Fat Rebellion proceeds in three stages. First we ask who were the main actors of the campaign and how were they related to each other? Secondly, we analyse the framing of campaign: how was obesity defined as problem and what kinds of arguments were applied in different framings? Finally, we explore the new category of field experts as mediators of scientific and technical knowledge.

Analytical Perspectives: Biological Citizenship and Field Experts

Advances in the biosciences and technology have challenged existing concepts of citizenship (Rose and Novas, 2005). Human life is increasingly defined via science and technology, specifically with reference to biological terminology. Since the early 2000s, the concept of biological citizenship or biocitizenship has been used, with several different meanings (e.g. Rose, 2001, 2007; Petersen and Bunton, 2002; Petryna, 2002, 2009; Rose and Novas, 2005).

In their essay *Biological Citizenship* (2005), Nikolas Rose and Carlos Novas analyse the new connections between biology, self-identity, and politics. New biotechnology presents the human body as a fragmented, biotechnologically exploitable consumer object that can be reshaped by medical technologies and pharmaceuticals. They argue that new biotechnology makes new ideas of what it means to be a human being possible, emphasising an overly somatically and technologically determined view of everyday human life (see also Cooter, 2008; Cooter and Stein, 2010).

On the one hand, biological citizenship means the individualisation of health risks: one is not only responsible for the health and illness of the body, but must also know and manage the implications of one's own genome. On the other hand, biological citizenship is being collectivised, and the collectives organised around specific biomedical classifications are now increasingly important. These include activism, such as patient organisations campaigning for better treatment or gaining access to health services.

For Rose and Novas (2005), campaigns aimed at improving lay people's knowledge about science, health, and technology are the cornerstones of biological citizenship. Health education aimed at ordinary citizens reflects value choices, for it incorporates the information that is regarded by the prevailing authorities as relevant and important from a social point of view. In other words, education both shapes citizens' self-understanding and impacts the way political and social elites perceive the individual citizen (Rose and Novas, 2005).

Several scholars have examined critically the concept of biological citizenship. For instance, Plows and Boddington (2006) argue that Rose and Novas use the concept too 'broadly and descriptedly' encompassing many different citizenship projects under the umbrella 'bio'. Further Raman and Tutton (2009) claim that Rose and Novas focus too much on 'molecularised biopower', ignoring the interplay between the discourses of molecular, population and the imagined national communities. While acknowledging this critique, we think that the notion of biological citizenship brings some important insights to the study of health and citizenship.

The relations between science and lay people are mediated by special forms and institutions of communication. This mediation has been traditionally defined in terms of popularisation. There is a need to make the achievements of science accessible to the general public by 'translating' them into the common language,

as the popular metaphor suggests. For this, we need mediators such as journalists and other professional communicators to bridge the gap between science and society.

The previous notions of popularisation and translation have been widely debated and challenged as being too rationalistic, paternalistic, and simplistic. They are based on assumptions of science communication as a one-way street, treating science, the media, and the public as unified entities (see, e.g. Dornan, 1990; Hilgartner, 1990; Bucchi, 1998; Gunnarsson and Elam, 2012). A basic lesson of these critiques is that the communication of science is driven by various motives—not only by altruistic reasons for public enlightenment but also by social, political, and economic imperatives—and it is practised in various contexts and forms. These forms and contexts of communicating science create networks of interaction where making science and communicating its results, professional communication and mediated public discourses or science and its material, social, and cultural products cannot be neatly separated.

However, the practices of science communication are still often based on these distinctions. According to Gunnarsson and Elam (2012, p. 17), 'science popularization as a field of cultural endeavour builds on an assumed division between the work of producing scientific knowledge and that of publicly communicating it'. Based on a case study of a Swedish low-carb/high-fat movement Gunnarsson and Elam argue that this division makes scientific expertise vulnerable to skilled communicators who challenge scientific research and authority. Our argument is that this division may also promote these new field experts who simplify and commercialise scientific expertise.

While the study of science communication has focused mainly on scientific experts and the media and journalists as mediators of scientific knowledge and expertise, we propose a new category of field experts. Field experts act as form of knowledge broker (Meyer, 2010) in transferring and translating knowledge from research to the wider audience. According to Meyer (2010, p. 121), knowledge brokering also involves 'a reification and increased visibility of the role of "translators", that is, brokers'. During the campaign analysed here, the field experts represented themselves as reliable interpreters of scientific knowledge and technical measurements and acted as mediators of biocitizenship.

Data Sources and Methods

Finnish daily newspaper *Helsingin Sanomat* (*HS*) launched a journalistic anti-obesity campaign under the heading *Fat Rebellion* in 2007. It was designed to inspire and inform people about how healthy living habits and normal body weight contribute to well-being. The campaign started on 8 January 2007 and ran through to 16 May the same year. In addition, *HS* published updates and commentaries to the campaign in 2008–09.

HS is Finland's biggest daily newspaper with a circulation of almost 340,000. This makes it the biggest newspaper of all Nordic countries, elevating it to a significant position in Finnish society. *HS* has several science journalists and weekly science publications. In Finland, newspapers have a stronger role than in many other European countries as a source of science (Finnish Science Barometer, 2013, p. 11).

In the beginning, there were some complaints that the campaign was overly aggressive in its style. Due to the sensitive nature of the topic, *HS* stressed that '(i)t's not our purpose to apportion blame on readers who have a bit of flesh around their bones, but to provide information about the relationship between obesity and health, to provide tools for personal solutions' (*HS* Domestic News, 8 January 2007).

By encouraging readers in their quest for well-being to turn to field experts, *Fat Rebellion* bolstered business activities growing from the fear of losing control of one's life. Finland provides a good opportunity to study the politics of healthy living and media representations of obesity. A dominant feature of the Finnish public understanding of science and public policy is the promotion of science and technology as a national project. Science and technology have been relatively unanimous, expert-driven projects in Finland, and received little critical public debate compared to that in many other European and Scandinavian countries (Miettinen and Väliverronen, 1999; Väliverronen, 2004; Setälä and Väliverronen, 2010; Finnish Science Barometer, 2013).

The material for this study includes articles published from 2007 to 2009 retrieved from *HS* electronic archives using the search term 'fat rebellion' and the aforementioned date parameters. The data set comprised 81 articles, which appeared in the following sections of the newspaper: Domestic News (32), Living & Health (20), other special sections (4), Business (5), Foreign News (4), City News (4), Letters to the Editor (4), Editorial (3), Sports (3), and front page news (2). Texts that referred to the campaign only in passing were excluded.

We identified the main actors involved in the campaign and how their relationships were represented in the newspaper: who were the targets of concern, who were the providers of information, and who were the experts? This was based on a brief quantitative content analysis to identify the main themes and actors, and followed by qualitative textual analysis. Based on this analysis, we decided to focus on the role of expertise, particularly on 'field experts' and their relation to scientific knowledge and expertise. Further, we used qualitative frame analysis to describe the dominant representations of the obesity problem. We did this by asking why being overweight is considered undesirable. Finally, we extended our analysis to a wider sociocultural context and tried to establish exactly what the debate was about, interpreting the results of media analysis in relation to the idea of biological citizenship.

By framing issues and events in different ways, media offers alternative ways of understanding reality. In this sense, the frame directs both people's thinking and

action. Frames are 'largely unspoken and unacknowledged' (Gitlin, 1980, p. 7); they are 'mental maps' (Dunwoody and Griffin, 1993, p. 24) or 'persistent patterns of cognition, interpretation and presentation' (Conrad, 2001, p. 229) on the basis of which journalists create news stories. Frame analysis focuses on the selection and salience of issues, highlighting certain aspects of reality and obscuring others (Entman, 1993).

Frame analysis is widely used in communication studies, but it has received criticism for its conceptual and methodological problems, as well as its neglect in terms of political and social power, and ideological analysis (e.g. Carragee and Roefs, 2004; Carvalho, 2007). We acknowledge this critique, but nonetheless argue that frame analysis provides a useful vantage point for the examination of media representations. We extend our study of framing by analysing the social contexts and discursive structures of the debate.

The Fat Rebellion

> This series looks into the health hazards associated with obesity in Finland and around the world. What are the reasons of obesity? What are its consequences? Is there anything that can be done about this mounting problem? (Campaign launch text, *HS*, 20 January 2007)

The campaign highlighted different aspects of overweight, particularly its adverse health effects. The main focus was on the question of how to overcome obesity. To this end, *HS* issued a dieting challenge to a local government (Mäntsälä) under the title of the *Fat Rebellion*. The campaign dealt with the joint project by the Armed Forces and the National Institute for Health and Welfare (THL) on nutrient intake among conscripts, the healthiness of canteen lunches, physical exercise, and the instruments and sanctions applied in public health education.

Competitive sports and insomnia were also discussed in the framework of the obesity problem. The campaign was built around articles written by *HS* journalists, who interviewed experts, politicians, and people in the public eye, as well as ordinary citizens. Obesity was represented as a threat to the individual concerned, to their children, their employers, and to the national economy. It was discussed as a global epidemic that was not just a disease, but also purely and simply a matter of personal will, stripped of the metaphysical: 'The reason for fat is plain and simple: you eat more than you consume. (. . .) The process of fat accumulation is simple, and so too is the process of getting rid of fat' (Editor-in-Chief Reetta Meriläinen, *HS* Domestic News, 8 January 2007).

Readers were urged to avoid obesity and get rid of fat tissue by exercising more, and eating less and healthier foods. An important part of this journey towards normal weight was the use of various body monitoring instruments. The *Fat Rebellion* had a temporal trajectory, which started from the definition of the obesity problem and the description of the campaign agenda by means of statistics

and comments from obesity researchers and editors-in-chief. This included the citing of international examples of how the problem affected different social and ethnic groups. Interviews with researchers and other experts were interspersed with sharply critical comments by journalists. Obesity was described not just as a threat to the individual's health, but also as economically irresponsible behaviour:

> Apart from its health care and social security costs, obesity has what researchers call significant 'productivity costs' to society. Put simply, when fat people have to stay at home because of illness or when they die prematurely, work remains undone in the workplace. (*HS* Business News, 20 January 2007)

From the very outset, the campaign's name and no-nonsense tone was met with wary reception. In February 2007, *HS* reported on the feedback it had received and defended its approach. In March, the campaign introduced the National Public Health Institute's vision for penalty payments charged to obese people. A Gallup poll taken after the publication of this article showed that 9 out of 10 *HS* readers were opposed to these plans. Therefore, during the course of the spring, the campaign softened its tone: its polemical commentary on fat gave way to more neutral reporting on the health and working ability of people in general. From beginning to end, the campaign offered the most exposure to advice by experts in health promotion and obesity who encouraged lifestyle changes with a view to the achievement of normal weight. The progress of five people who had taken up the *HS* challenge in Mäntsälä was followed throughout the campaign. In 2008, *HS* published five follow-up stories.

Campaign Targets and Agents

The targets of concern and education mentioned in the texts were many and varied. After close reading, we divided them into two categories, i.e. warning examples (obese people) and risk groups (potentially obese people). The former group was typically represented by geographically distant or ethnic groups, such as 'hamburger-munching Americans', immigrant Asian workers, or people from 'developing countries that have come through the worst of the worst'. Obese people appeared in the texts as targets of concern and in need of education, but also of reproach. Descriptions of these people rarely allowed them a voice of their own.

The second group identified as targets of concern and education were potentially obese people. These people represented (domestic) 'risk groups' who were exposed to obesity and its presumed corollary diseases and other fringe phenomena. The groups concerned were described in such general and sweeping terms that, with the exception of children, the actual target group for the campaign remained rather vague and ambiguous. The finger pointing, name calling, and

explicit statement of concern created a sense that potential obesity was applicable to all readers. The *Fat Rebellion* seemed to inform and educate the whole nation. The research material also contained echoes of the responsibilities assigned in the history of health education to women for good bodily character (in this instance normal weight: 'At-risk groups for obesity include young families with children, expecting mothers, the children of obese parents, people who have given up smoking and people who take only little exercise' (*HS* Domestic News, 8 January 2007).

The 81 articles analysed for this research identified 144 active agents.[1] The *Fat Rebellion's* perspective on obesity and healthy lifestyles was supported by science; most of the campaign articles[2] included some reference to science or research results. Scientific knowledge was mediated by scientists and field experts, such as nutrition therapists and personal fitness trainers. These field experts were the most cited sources in the campaign. 'Students' represented ordinary citizens, whereas 'examples' represented not-so-ordinary people such as celebrities (Table 1). Other actors present in the campaign were politicians, or members of commercial and non-profit organisations.

Scientists

Scientists represented in the campaign came mainly from biomedicine or health sciences. They were usually researchers or managers of a research institute:

> Markku Heliövaara, Senior Medical Officer at the National Public Health Institute, says he feels at a loss because despite ongoing health education campaigns, efforts to stem the obesity epidemic have failed. (...) 'Many of these diseases (diabetes, arthritis, hypertension, CHD) could by avoided by preventive medicine', he says. (*HS* Living & Health, 8 January 2007)

This excerpt includes all the main manifestations of the science agent that appeared in the *Fat Rebellion*: the research institute (e.g. National Public Health Institute); the scientist as an individual (e.g. head of a research institute, professor, obesity researcher); and science in general and rather vague terms

Table 1. Main actors in the campaign

	Number of actors	% of actors
Field experts	42	29
Scientists	32	22
Students	20	14
Examples	19	13
Others	31	22
Total	144	100

(e.g. science, scientists, medicine, statistics). References to scientists and research results were not always motivated by reasons of communicating information, but they often served to legitimise statements made by the journalist, or the actions of health promotion professionals.

Field Experts

In using the term field experts, we refer to health promotion, nursing, and nutrition professionals appearing in the texts reviewed. These nutrition therapists, sports instructors, public health nurses, and personal fitness trainers were all grassroots experts of the obesity problem who subscribed to the basic premises of the campaign.

Field experts differed from scientific experts in the sense that they worked face-to-face with the targets of the campaign. Field experts did not appear so much as sources of scientific information, but instead as authorised users of that information. They gave advice, encouraged citizens to record their weight, and offered quite detailed prescriptions in their interviews of the sort of lifestyles people should lead in order to achieve their ideal weight. Their representations typically consisted of normative commentary that combined knowledge and experience:

> 'To start off you only need one weekly training session to the level of sweating and you're guaranteed results', says personal trainer Tiina Lamminaho-Saarinen, who is a specialist in weight control. (. . .) In February the personal trainer's mobile phone had already beeped several times as the team who started in January (the *Fat Rebellion* campaigners from Mäntsälä) had been texting in their results. (*HS* Living & Health, 5 March 2007)

Students

In addition to scientists and field experts, many of the campaign articles featured individual citizens in two different capacities, i.e. students and examples. Students were members of the lay public who had accepted the argument concerning the obesity problem and its treatment, i.e. people who wanted to lose weight or had already started. They appeared in almost a third of articles, a result similar to that concerning the reality-TV personalities. These people were interviewed to determine what they thought about the obesity problem and healthy lifestyles. The main focus was on the *Fat Rebellion* team of five from Mäntsälä, whose private lives were followed and described in great detail throughout the campaign:

> The closest family of (SL) have also begun to look more carefully at what they are eating. Even the daughter, aged 13, can now slip into even

> smaller size jeans. (...) The family has realized that the *Fat Rebellion* team has become celebrities. When they went out to buy their Nordic walking sticks, they were given a one euro discount per pair because they're celebrities. (*HS* Domestic News, 13 February 2007)

Students were portrayed as eager and confident agents who had done a good deed by accepting the *Fat Rebellion* challenge. On average, they had relatively low levels of education. Rather than being allowed an independent voice, they were portrayed as passive objects of the campaign.

In a follow-up story published in May 2008, *HS* reunited with those who formed the Mäntsälä *Fat Rebellion* group, stating that 'some continue their new life style, some are planning to start a new diet and some have already given up' (*HS* Life & Health, 12 May 2008).

Examples

Eleven of the articles in the research material featured not-so-ordinary citizens who could not be slotted in the category of students, a group we labelled examples. These were people who had accepted the message of the campaign, or who used the campaign as a resource and were often in the public eye. These 'examples' included sports personalities, politicians, scientists, and other prominent figures. This group was set apart from the students by elements of time pressure, rigorous physical training, and social success and status: 'Herself petite and quite small for a boxer, (Eva) Wahlström says that boxing is a good sport for people of all ages and all weights' (*HS* Domestic News, 5 March 2007).

The category of examples also included one athlete whose weight exceeded the norm and was therefore the exception to the rule. This person was also a businessman who had enjoyed good success in his discipline. Attached to the story were dire expert warnings of what would happen to ordinary 'students' if they carried the same amount of weight. In the representations of examples, social status and health appeared as naturalised correlates. This served to create the appearance of a negative association between social success and obesity.

Representations of the Obesity Problem

By framing issues and events in different ways, the media offers alternative ways of understanding reality. Frame analysis provides a useful vantage point for the examination of media representations.

The way news stories are framed depends both on the narrative conventions of the particular journalistic culture, and, more broadly, on sociocultural ways of viewing and analysing new phenomena through certain set stories or metaphors. As for actors who appear in the news media, the meaning of frames is that they

offer different kinds of roles to which they are expected to adapt in the narrative structure of the news story. Frame analysis focuses on the selection and salience of issues, highlighting certain aspects of reality while obscuring others (Entman, 1993).

Obesity was represented in the campaign as not only a serious disease, but also as a simple and straightforward problem: 'Fat becomes a problem when the crucial quality-of-life equation between nutrition, exercise and health is not in balance' (*HS* Domestic News, 6 February 2007).

On the one hand, the campaign is characterised by a science-driven view of obesity and the related knowledge hierarchy. The campaign texts quote scientists, field experts, and other agents who are committed to the mainstream biomedical understanding of obesity. Lay agents, on the other hand, use common-sense arguments and refer to experts to paint a picture of obesity as a simple cause–effect phenomenon that fat accumulates when 'we eat more calories than we expend'? Obesity is even described in terms of a mathematical equation whose parameters are nutrition, exercise, and health. These two methods of persuasion are not mutually exclusive, but complement each other. In both cases, obesity is represented as a straightforward matter of declaration.

In its representations of obesity and the relationships between different agents, the campaign employs the deficit model of science communication, such that obesity is largely due to a lack of knowledge and can therefore be redressed through the application of biomedical information. Obesity is represented in the campaign as a socially discrete and physical problem. The solution is expected to come from the biosciences and health sciences, as well as fields such as urban planning, encouraging 'more everyday exercise and less motoring' (*HS*, 18 January and 15 April 2007). The field experts subscribe this physical notion of obesity: 'It is easier for men than women to keep their blood sugar levels steady. The reason for women's emotional eating usually lies in blood sugar levels' (Home economics teacher and gym instructor Varpu Laisi, *HS* Domestic News, 5 March 2007).

One element that differs from the campaign's straightforward reporting is a summary of research whose results are to some extent at variance with the campaign's representation of obesity (consumption—energy intake—weight increase) (Arja Kivipelto, *HS*, 4 February 2007). This article highlights the element of uncertainty that goes with all scientific progress, that there are still many elements of human metabolism, as well as the interaction between the body and the environment, that remain shrouded in mystery (see also Gard and Wright, 2005; Douglas, 2007).

The *Fat Rebellion* aimed to persuade its readers via three dominant frames, which we call the national-economic frame, the risk frame, and the aesthetic frame. Generally, these frames are mutually compatible and often complement one another in the same text. They all subscribe that 'obesity is bad for you', but they have different answers to the questions, 'why is obesity bad for you?'

The national-economic frame addressed the reader of the *Fat Rebellion* campaign as a tax payer, the risk frame as a worker and citizen who is concerned about the threat of being excluded, and the aesthetic frame as an individual who identifies with those who have been successful and who want to gain the approval of others.

National-Economic Frame

The national-economic frame is keen to emphasise that the treatment of obesity places a heavy burden on the national economy, appealing to tax-paying citizens through economic arguments:

> Recent estimates are that the costs of the adverse health effects of insufficient physical exercise and absenteeism come to around 300-400 million euros a year. (. . .) Director Mikael Fogelholm points out that physical exercise is not just a private matter, but has much wider implications. (*HS* Domestic News, 18 January 2007)

Readers are urged to reshape their physique and abstain from indulgence in a bid to boost the country's national competitiveness. The reduced labour input associated with obesity is described as a threat to the country's (economic) existence and obesity as comparable to desertion. The threats are delivered in the form of a quantitative rhetoric, citing large round figures without any point of reference (see Potter *et al*., 1991). It is less informative but more persuasive to say that obesity costs the national economy 'millions' than to talk percentages. According to statistics on labour input losses and disability pensions, musculoskeletal disorders and other adverse phenomena associated with obesity are less expensive and less prevalent than mental health problems. Since comparative statistics do not lend support to the campaign's assumptions that obesity is among the most pressing and urgent problems for the nation, greater emphasis is placed on its increasing threat in the future.

Campaign articles appearing in the newspaper's foreign news section remind readers of their civic duty to remain within their normal weight range. In this discourse, representations of 'foreigners' are associated with the determinant fat: 'Scientists are talking about an obesity epidemic that is no longer affecting just hamburger-munching Americans, but rapidly spreading to developing countries that have come through the worst of the worst' (*HS* Foreign News, 14 January 2007).

The strategy of encouragement is based on creating contrasts and oppositions. Articles describing obesity as a global threat highlight their message by telling readers about a man in Alaska who needed an extra-large coffin, and a father of five eating battered, deep-fried onion rings at an American agricultural show. There are also interviews with French families who have placed their children

under observation because their weight exceeds the prescribed norm. This antagonism helps bring Finnish people together, and makes it easier for Finnish readers to distinguish themselves culturally from fat Americans, British class society, poor Latinos, Indians, Chinese, and immigrant workers. These groups are quoted to build support for the interpretation that the national economy's competitiveness rests on the input of the normal weight population. The national-economic frame draws from hard social values, which point to the positive causal relation between economic growth and well-being. It follows former Prime Minister Esko Aho's 2005 suggestion of the imposition of penalty fees for people who meet certain external or way of life criteria, published in the newspaper Kauppalehti (31 August 2005).

During the last decades, there has been a gradual transition from public welfare to the privatisation of health services in Finnish health politics. The transition is accompanied by consumer-centred ethics that emphasise an individual's responsibility for their own health behaviour. Major food and nutrition programme ERA, run by the Finnish Innovation Fund Sitra in 2005–10, involved substantial risk investments in functional foods and the pharmaceutical industry under the slogan: 'Finland: the home of healthy nutrition' (Sitra, press release, 17 August 2005). The definitions of health offered by the Valio CEO and the *Fat Rebellion* campaign are closely aligned. All that is needed now is to establish sales and marketing practices:

> We all know that good health is ultimately about diet and lifestyles. If industry, scientists, the public sector and the Director-General of the Public Health Institute all attend the same strategy meetings, that will no doubt help to establish a foundation for healthy eating, but at the same time it also creates a competitive edge for our food industry. (Valio CEO Harry Salonaho, Valio press release, 17 August 2005)

Risk Frame

> Cholesterol, blood pressure and weight index measurements are taken from men in their forties living in Mäntsälä. They are also asked about their physical exercise and diet and smoking habits. Based on the results they are given a risk score. (*HS* Domestic News, 12 February 2007)

The risk frame in the campaign classifies citizens into categories formed on the basis of way of life and bodily measurements, focusing on the likelihood of illness, vitality, and deterioration. The campaign reports on the idea by Research Director Markku Pekurinen that fat people – people in high lifestyle risk categories – should be declined access to health care benefits available to others (*HS*, 5 March 2007). Although the proposal was rejected by *HS* readership, the

campaign takes a positive stance on measures aimed at the identification of (overweight) people carrying non-desirable biological markers.

The risk frame addresses a biologically responsible reader who is concerned about the prospect of marginalisation (Beck-Gernsheim, 2000). The campaign pledges to provide the information and tools with which to reach the normative ideal weight, and thus to manage the threat of being excluded from insurance programmes. The campaign suggests that the individual's ability to respond to the challenges of the workplace depends crucially on how willing they are to follow welfare regimes (physical exercise, diet rules, and regular technology-assisted expert control). In the risk frame, illness is defined as a consequence of citizens failing, despite the information available, to assume responsibility for their health. The campaign aims to identify those people with non-desirable lifestyles by developing indicators on the basis of which people with high-risk scores are subjected to monitoring.

A campaign article on the health of conscripts crystallises many of the assumptions, values, and social relations concerning obesity and well-being presented in both national-economic and risk frames:

> 'Each year, the conscripts who sign up are fatter than the year before. And besides, too many actually gain weight while doing their military service', says Head of Research at the Department of Military Medicine, Harri Pihlajamäki. One of the most critical questions is whether the doughnuts and pizzas at the Soldier's Home contribute to weight gain. (. . .) The canteen matron is distressed to hear the statistic that no more than 10 per cent of all conscripts nowadays come in for their evening snack. (. . .) Indeed a healthier, high-fibre doughnut has now been developed in Kajaani. The impacts of these reforms will be measured in further studies with new conscripts, because the nutrition study is scheduled to run for three years. (*HS* Domestic News, 20 January 2007)

This excerpt from a research report builds an image of the army as a symbol of national unity and autonomy, and portrays conscripts as a cross-section of this age group of young Finnish men, a risk group made up of people who hold the future of our country in their hands. The problem is first stated by quoting the authoritative words of a research director. Next, once the science institution has had its say, the floor is given to the canteen matron. Despite the potential nature of the threat, the same article offers a solution to the problem in the shape of a 'healthier, high-fibre doughnut'. This new doughnut is not just baked, but, for reasons of technical and scientific credibility, it is 'developed'.

Aesthetic Frame

> A simple way to assess obesity is to look in the mirror. (*HS* Living & Health, 8 January 2007)

Whereas the national-economic frame addresses its readers as a single nation and the risk frame addresses them as groups, the aesthetic frame appeals to individual performance. The aesthetic frame is present in articles that offer advice to people who want to 'slim down'. Any reader can identify with the matron of the workplace canteen, the occasional passer-by, the person who 'could do with taking more physical exercise'. In April, campaigns begin to address readers more openly in the name of 'lightening up' for summer. The aesthetic frame seeks that we understand that the most important thing is not just a desire to achieve good health, but to achieve optimal bodiliness (Rose, 2001). Through the use of images, comments, and examples, the campaign associates a healthy way of life with slimness. Slimness is represented as a sign of success, social well-being, and as a condition of intrinsic value. In order to achieve that condition, it is necessary to monitor one's body and to concede to being monitored. 'Last summer (. . .) there were record numbers of fat children on our beaches. In the absence of any clothes to hide the excess fat, *all that weight was just thrust in your face*' (Editor-in-Chief Reetta Meriläinen, *HS* Domestic News, 8 January 2007; emphasis added).

Through the use of naturalised language and an economy of expression, obesity is represented as something profoundly unsightly. Although the Editor-in-Chief goes on to say: 'obesity is not an aesthetic problem; the ideal is not skeleton skinny but just a person of normal weight' (*HS*, 8 January 2007), the message is clear. Fat is not attractive. The fat individual is at risk of losing his or her social status. In the aesthetic frame, slimness is connected to will power. 'Three kilos is not a lot, but for me it's too much. (. . .) Who wants to make the public admission that they have poor self-discipline? I don't' (*HS* Living & Health, 12 March 2007).

Field Experts and the Construction of Biocitizenship

We argue that the strong role of field experts in *Fat Rebellion* reflects a process in which life sciences, lifestyle coaches, and various technical instruments have assumed an increasingly prominent role in everyday life.

Nutrition therapists, sports instructors, public health nurses, physiotherapists, personal fitness trainers, and other field experts were the most cited actors in the campaign. They appeared as authorised users of science-based information and technology, and worked closely with ordinary people in their fight against fat. They gave advice and encouraged students, or 'biocitizens-as-consumers' (Plows and Boddington, 2006, p. 126) to record their weight, and offered detailed prescriptions in their interviews of the sorts of lifestyles people should lead to achieve their ideal weight.

In order to receive tailored advice on how to enhance their well-being, students provided field experts with all relevant information about their bodies and confessed to any undesirable practices ('yesterday I sneaked a piece of chocolate', *HS*, 26 April 2007). Rather than being allowed an independent voice, they were

portrayed as passive objects; they did not make things happen, but things were happening to them.

Both the national-economic and the risk frames are grounded in a rationalist view of the principles of living. While the national-economic frame appeals to economic efficiency, the risk frame reflects a medicalised view of health; the reviews of risk scores and the measurements taken in the name of health can be interpreted as a pursuit of life control and its extension by technological means (Helén, 2004).

Obesity is presented as a predictor of exclusion through illness. In the risk frame, illness is defined as a consequence of citizens failing to assume responsibility for their health and failing to constitute themselves as responsible citizens. It reflects the group risk as thematised by Rose (2001); the campaign aims to identify those people with non-desirable lifestyles by developing scales and indicators on the basis of which people with high-risk scores are subjected to monitoring. The risk frame applies to two of the group risk control practices identified by Rose. Preventive intervention aimed at managing the risks associated with obesity is reflected by encouraging certain lifestyles. Speculation over penalty fees, then, raises the prospect of exclusion from employment practices.

The norm of biocitizenship was also constructed though a bioscience-driven image of obesity and a narrow view on science popularisation. Despite its declared intentions, the *Fat Rebellion* campaign failed to genuinely involve the reader. Representations of students support the agenda where the main assumption concerning citizens is that they are interested in the risks associated with their lifestyle. The material builds an image where the concerns communicated by lay people to journalists and experts only relate to their lack of bioknowledge (cf. Helén, 2004; Wynne, 2005).

In the Finnish context, this reflects the historical construction of culture via health-related civic rights and duties. In an article on health citizenship in Finland in the early twentieth century, Helén and Jauho (2003, pp. 6–17) make a distinction between three dimensions of biological citizenship: (1) The protection of the nation's vitality and the establishment of the individual's citizenship through health education; (2) The strategy of inequality, in which citizens are separated from one another based on their vitality in the name of the prevailing health norm; and (3) Self-education wherein individuals promote healthy citizenship in order to participate as full members in the process of government policy-making.

The national-economic frame in the campaign makes use of the first method of persuasion. The second method is articulated in the campaign as a review of risk scores and aesthetic frame, with which citizens are classified as either decent or non-decent. The third type of citizenship formation appearing in the material (i.e. self-education to citizenship) is the most sensitive trait of the campaign. The risks associated with obesity are brought to the readers' attention and given free rein in adopting the message of the campaign. The paradox is that in order to be liberated as individual health agents, readers must first recognise the social order authorised by biomedicine and health science.

The campaign can be seen as a model example of the *production of certainty*. This concept relates to the changes that scientific knowledge typically undergoes in the process of popularisation, as it moves from the expert to the public level. Bucchi (1998) suggests that in routine science communication, uncertainties and contradictions associated with scientific results or theories at the esoteric level have a tendency to disappear in popular representations of knowledge. In the campaign, this tendency was perhaps intensified by the dominant role of field experts who mediated scientific information and expertise. Part of their expert strategy was the use of popular biomedical scientific rhetoric with numbers, measurements, and technical language. Field experts represent themselves as reliable interpreters of scientific knowledge and technical measurements and acted as mediators of biocitizenship. Lay perceptions of well-being were always subordinate to what experts or technical readings (cholesterol level, pulse rate, weight index, calorie consumption, body fat, etc.) assert: 'Waist measurement gives an indication of abdominal obesity (. . .) Self-measurements are liable to be somewhat inaccurate' (*HS* Living & Health, 8 January 2007).

Within the category of field experts, the reader is confronted with the profession of lifestyle coaches[3] who make a living out of biocitizenship, and to whom people can turn when their confidence in self-knowledge and the support of the surrounding community begins to waver:

> Online weight control programmes are now the tool of choice for anyone concerned about their weight and their health.(. . .) Patience, self-discipline, (. . .) and you will feel better. (*HS* Living & Health, 22 January 2007)

Conclusions

The campaign addressed its readers via four categories of agency: scientific experts, field experts, students, and examples. The most interesting, and also most visible, group in the campaign was the field experts, such as nutrition therapists, sports instructors, physiotherapists, and personal fitness trainers, who acted as mediators of scientific information and technical expertise.

Life sciences, lifestyle coaches, and various technical instruments have assumed an increasingly prominent role in everyday issues (see Beck-Gernsheim, 2000; Rose, 2001). There are two wider social implications of the *Fat Rebellion* campaign. On the one hand, the campaign represents the rising genre of journalism where journalists abandon their traditionally assumed neutral role as information providers, and instead advance an explicitly political agenda and assume the role of active participants. This kind of campaign journalism usually overshadows possible disputes in health promotion (cf. Duncan, 2004). The other political dimension is the strong role of science and expertise in the campaign. A distinctive feature of the reviewed texts is that views about obesity are legitimised by

reference to bio(science). What is new is that scientific information and expertise is mediated by field experts. These field experts represent themselves as reliable interpreters of scientific knowledge and technical measurements.

While previous studies have mainly focused on the role medical knowledge and expertise in the public definition of obesity, our study aims to show the importance of field experts. Compared to scientific experts, field experts do not appear so much as sources of scientific information, but instead as authorised users of that information and specialists of employing commercial health technologies. They give advice and encourage citizens to record their weight, and offer detailed prescriptions of healthy lifestyles. This combination theoretical and practical knowledge as well as their daily or weekly face-to-face relationship with people in quest of healthy lifestyles make them powerful mediators of scientific knowledge and expertise.

The study analysed the representations of obesity in the *Fat Rebellion* campaign using three dominant frames: national-economic, risk, and aesthetic. The national-economic frame addressed its readers as concerned tax payers who should be worried about the rising costs of the obesity problem. The risk frame classified citizens into categories formed on the basis of way of life and bodily measurements, focusing on the likelihood of illness, vitality, and deterioration. The aesthetic frame presented advice to those who want to lose weight in order to look good.

The national-economic framing in the campaign confirms the notion of Raman and Tutton (2009) that the discourses of imagined national communities are still important in 'making up' biological citizenship. Thus, biological citizenship should not be defined too narrowly as molecularisation of biopower. The outcome of the simultaneous deployment of these three frames is the *norm of a responsible biocitizen*. This norm is legitimated not only by the prevention of illness and marginalisation and by the advantages incurred to the Fatrebel team, but also by the correlation between slimness and social success.

Notes

[1]The same agency category could appear more than once in the same article.

[2]By campaign articles we refer to articles published under the campaign logo.

[3]By lifestyle coaches we refer not only to professionals of individual health promotion, but to a whole range of service providers operating in the individual domain, such as style and colour consultants, living skills consultants, and workplace coaches. All offer help and support with everyday problems that people have traditionally resolved themselves, or with the help of family members.

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