

Fatism, Self-Monitoring and the Pursuit of Healthiness in the Time of Technological Solutionism

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Fatism, Self-Monitoring and the Pursuit of Healthiness in the Time of Technological Solutionism

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Abstract

Thanks to apps, individuals can measure an immense set of activities and conditions creating huge stocks of personal data. These data can also be shared on social networks. Self-monitoring functions allow individuals to have monitored pathological conditions and to improve life-styles. Many of these apps concern diets. In fact, the turn of the XXI century has witnessed a huge increase of obesity, in rich and in poor countries. Yet, diet apps - even if useful under many respects - can also be considered as examples of an approach which does not consider the influence of inequality and social factors on health. As a consequence, “technological solutionism” is strictly related to the process of medicalization of life and its reductionism.

Key-words: self-monitoring, quantified-self, obesity, Morozov, technological solutionism, medicalization.

1. Sociological approaches to obesity

According to the *Passy* health-surveillance research, in Italy 32% of adults are overweight and 11% are obese. Therefore, in Italy more than four adults in ten (42%) are excessively fat. The research HBSC-Italia (Health Behaviour in School-aged Children) has found out that in 2010 the frequency of overweight and obese children is higher in those aged eleven (29.3% of the boys and 19.5% of the girls), than in those aged 15 (25.6% of boys and 12.3% of girls). These data are particularly worrying because they show that obesity is

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increasing fast among young people. The *Passi d'argento* health surveillance system (active in seven Italian regions) is focused on old people and shows that, in 2010, 60% of individuals between 65 and 75 years old are overweight/obese; 53% of individuals between 76 and 84 years old are overweight/obese; 42% of individuals over 84 years old are overweight/obese¹. The World Health Organization (WHO) provides useful data on obesity:²

- Worldwide obesity has nearly doubled since 1980;
- In 2008, more than 1.4 billion adults, 20 and older, were overweight. Of these over 200 million men and nearly 300 million women were obese;
- 35% of adults aged 20 and over were overweight in 2008, and 11% were obese;
- 65% of the world's population live in countries where overweight and obesity kills more people than underweight;
- More than 40 million children under the age of 5 were overweight or obese in 2012.

Moreover, WHO reports that, in 2012: “Once considered a high-income country problem, overweight and obesity are now on the rise in low- and middle-income countries, particularly in urban settings. In developing countries with emerging economies (...) the prevalence of childhood overweight and obesity in preschool children is in excess of 30%. More than 30 million overweight children are living in developing countries and 10 million in developed countries.”³. For example, data on measured heights and weights indicate that the prevalence of obesity increased among the Moroccan population at the end of last century. In 1984/1985, 4.1% of the adult population was obese, and the prevalence increased to 10.3% in 1998/1999. In the most recent survey in the year 2000, 13.3% of individuals aged 20 and over were obese (22% among women and 8% among men) (Rgujbi and Belahsen, 2007).

Yet, as suggested by Batnitzky (2008), the increase of obesity in women, along with structural causes like lifestyle changes and nutrition transition, could also be due to gender discrimination. It has been underlined that a set of informal rules, especially in lower class families, prescribe a continuous

¹ I found all these data on the Italian Ministry of Health site: www.salute.gov.it/portale/salute/p1_5.jsp?lingua=italiano&id=175&area=Malattie_endocrine_e_metaboliche (28/06/2014)

² www.who.int/mediacentre/factsheets/fs311/en/ (28/06/2014)

³ www.who.int/mediacentre/factsheets/fs311/en/ (28/06/2014)

domestic presence of women. This condition limits the possibilities of physical exercise for women. Moreover, in the case of Moroccan women the most frequent activity is meal preparation. Therefore, the continuous contact with food increases the possibilities of weight gain. A kind of “situational obesity” or, rather, obesity as an effect of frequent exposure in situations where it is easy to taste and nibble various quantities of food.

However, it is in the United States that the situation is more problematic: two thirds of Americans are obese or overweight (Flegan et al., 2012). Today, the two groups have more or less the same extension, but this was not the case in the past. In the last forty years the number of obese people tripled, while the number of overweight people has not changed (Sullivan 2010). Furthermore, over half of Afro-American women are obese (Wake and Beydoun, 2007).

It is difficult to pinpoint among the causes of obesity. Five theoretical accounts can be mentioned in order to describe the etiology of this “epidemic”⁴: the political-economy perspective on food industry; the lifestyle-change model; the biological-evolutionary explanation; the health inequality model. Indeed, these perspectives are not exclusive, but rather can be considered an integrated and complimentary perspective (Cipolla, 2013). Besides these approaches, also the social construction perspective provides precious insights for the cultural analysis of obesity and stigma (Sontag 1977; Sontag 1988).

The political economy of globesity. This approach puts the marketing strategies of the food corporations at the center of the analysis (Moss, 2013). The food industry manufactures and distributes food that is continuously becoming fatter, more caloric and cheaper. With huge doses of sugar, fat and salt food becomes more palatable (Moss, 2013). This junk food is manufactured on a large scale, which anybody can afford and has huge packages: super-size portions for super-size bodies. Paradoxically, corporations advertise these products as healthy through manipulative campaigns (Nestle, 2002).

The lifestyle-change model. It is hard to deny that lifestyles have played a major role in the rise in obesity. For centuries, if not millennia, people worked out in

⁴ Starting from the epidemiology textbook definitions, it is hard to claim that obesity is an epidemic. For example, Gordis' widely used epidemiology textbook, defines an epidemic as “the occurrence in a community or a region of a group of illnesses of similar nature, clearly in excess of normal expectancy; and derived from a common or a propagated source” (2004, p. 18). As “normal expectancy” is something related to social representations and obesity is not originated from a common source, but from different factors, it is not proper to consider obesity as an epidemic, if not metaphorically. For American society, Grol-Prokopczyk (2009), suggests to considering obesity as endemic, but not as an epidemic.

the fields or in the woods and physical activity was very intense. The divine damnation that men had to earn the daily bread through sweat and hard work, at least kept us slim. The shift from active to sedentary work has decreased colds and flus, but has increased weight, cholesterol and blood pressure (Sullivan, 2010). Now, in order to sweat we have to pay to go to the gym putting our bodies in unusual and ridiculous positions. Quoting Marx, history repeats itself first as a tragedy, second as a farce.

The biological-evolutionary approach. This perspective can be seen as complimentary to the lifestyle-change model. For millennia, natural selection has rewarded the biology of individuals who could store fat and calories in order to save stock for periods of hunger. Fat was adaptative. For many years, individuals were defenseless against floods, hunger and natural catastrophes. It is hard to believe that life-expectancy in Northern Europe for women was 45 years old in the mid of XIX century (Oeppen and Vaupel, 2002). In the last 50 years, individuals genetically selected for energy-saving have found themselves in work conditions, or more generally in life conditions, that do not require strenuous physical activities. It is this mismatching between individual nature and social environment that has led to overweight and obesity. The "thrifty gene" leads us to eat more than we need - in the past this surplus would had been used in hard times (Speakman 2013).

Inequality as fundamental cause of obesity. This perspective is rooted in the social determinants of health model. According to this model, the social and economic inequalities are "embodied" in the individual body (Cardano, 2008). Moreover, inequality is linked to unhealthy habits like excessive eating, lack of physical exercise and smoking (Goffredson, 2004). More effective health communication and more information on obesity and healthy lifestyles can have some effects but do not affect the causes of the problem. If a poor neighbourhood is populated with fast food outlets and has no facilities for sport or grocery stores, it is hard for the people living there to cultivate healthy habits. Also, often individual do not have the money for a carrot & cranberry juice from Whole Food, while they can afford a delicious Mc Cheese.

Sullivan (2010) proposes a historical account on the spread of obesity. His *Social Change Model of the Obesity Epidemic* begins the analysis from the Industrial Revolution. Industrialization, which begun in the XIX century, sped up urbanization, made agriculture intensive, stimulated the division of labor and fostered innovations in transportation. More specifically: "Industrialization's demand for labor fueled urbanization, but urbanization would not have been possible without the increased agricultural productivity from mechanization that freed an increasing proportion of population from the need to grow food. Expanding urban population increased the demand for commercially available

food. Innovations in transportation supported the commercialization and commodification of food” (Sullivan, 2010: 339). These processes contributed, over time, to the demographic transition, the feminilization of work and the commercialization and globalization of food supply. As a result, food became more industrial and less genuine.

2. Therapy culture and "healthiness"

As described in Maturro (2013), at present, quite awkwardly, thinness is associated to richness and obesity to poverty. This is the trend in affluent societies. For poor people, junk food is an instant gratification. In the deprived neighborhoods of the big American cities it is practically impossible to find fresh and healthy food. While at any corner a bright sign for fast food outlet can be caught at a glance. In the shopping malls, glittering food courts allows individuals to stuff themselves fried chicken, French fries and pseudo-Chinese food. In wealthy countries people gain weight and the lower strata of society become fat faster (Chang and Christakis, 2007; McLaren, 2007). People with high cultural and economic capital are healthier, eat fresh food and do more physical activity compared to the worse off. For the better off the body is like a textbook (Bauman, 1995). And therefore must be a pleasure to look at. So, the underlying stereotype is that the members of the upper class are able to dominate their instincts and passions. They are virtuous and have self control - as preached by the Founding Fathers and, before, by some philosophers of ancient Greece. In a society which rewards the thin, the obese are considered as lazy and lacking of self-discipline and fatism produces discrimination in social life (Conley and Glauber, 2006).

Discrimination based on the (presumed) lack of healthiness is entangled in a complicated pathway of causes and effects. To be clearer: causes and effects of discrimination give rise to more discrimination and more unhealthy habits in a self-fulfilling manner. Fat people are blamed and stigmatized for their incapacity to take control of their life and because their intemperance leads to higher medical expenses. This moralization of physical appearance is made acceptable by two social trends: the hegemony of the biomedical discourse for the interpretation of numerous social phenomena and the healthization of everyday life (Maturro, 2013b; Furedi, 2006)

Nowadays, there is a growing trend to search for technical solutions for problems that have causes that are largely social (Morozov, 2013). Often, the lexicon by which these problems are constructed is the biomedical discourse (Maturro, 2013b). Hence, it can be said that we are undergoing a conceptual medicalization of society. We understand ourselves as if we were determined

by our biological essence. Rose proposes the charming expression “somatic individuals”, that is: “beings whose individuality is, in part at least, grounded within our fleshly, corporeal existence, and who experience, articulate, judge, and act upon ourselves in part in the language of biomedicine” (Rose, 2007: 25-26). The biologization of many aspects of human life - behaviors and emotions, primarily - results in reductionism: “The social is reduced to the cerebral, the cultural to the natural, the mind to the body” (Marrone, 2011, p. 40). Yet, the pathologization of a part of one's own self, in some cases, helps to maintain a sense of identity. The mechanism is the *pars pro toto* trope: cancer-survivor, recovering-alcoholics, obese person.

Biomedical lexicon is very attractive in order to reduce social complexity and is automatically pathologizing: “People have no inner desire to perceive themselves as ill. However, powerful cultural signals provide the public with a ready-made medicalized interpretation of their troubles. And once the diagnosis of illness is systematically offered as an interpretative guide for making sense of distress, people are far more likely to perceive themselves as ill” (Furedi, 2006: 17). As a consequence, healthization becomes a core value for the better off in affluent societies. With an exaggeration, it could be said that the right to pursue happiness affirmed in the American Declaration of Independence has been absorbed by the duty of being healthy: “The promotion and celebration of health as the paramount value of Western society has encouraged people to interpret a variety of human activities through the vocabulary of medicine.” (Furedi 2006: 14).

This can be verified also with the medicalization of food: in food advertising, information about the taste appears less important than the amount of fat and calories or the effects of the food on the level of cholesterol (Lawrence & Germov, 2008). Indeed, the biomedical colonization on social and human activities has deep roots, as the World Health Organization in 1948 defined health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”. This definition has been analyzed under many respects: usually it is underlined, as a positive fact, that the definition comprises also social aspects (Maturo, 2009a). Yet, this positive quality could be also turned upside down. It is possible to consider the WHO definition as ambitiously connotated by “panhealthitism”. Indeed, under such a definition practically all aspects of human life can be related to health and, therefore, to medicine. It is not difficult to be sick or at least partially sick. Therefore, illness is not anymore an exception or a “temporary state” (Parsons, 1951). Illness is normal and can be reduced by the actions of the individual: “One of the implicit messages transmitted through campaigns against obesity and other “unhealthy” life styles is that health is not something that people have but something that can only be achieved through

effort and work. From this perspective, health acquires an elusive quality and illness is transformed into a normal state of existence. Perversely, the paramount value attached to health has the effect of normalizing illness.” (Furedi, 2006: 17). But, if therapy is increasingly important and at the core of contemporary society and people are a bit sick or pre-sick or “at risk” it results in people having to be treated any time. That is why, this therapy culture (Furedi, 2004) fosters self-tracking, self-monitoring and self-care. Even when we are not sick at all we are invited to cultivate preventive habits and to try to be “better than well” (Maturo, 2009b). Yet, while ten years ago diagnostic tools and electronic devices were external to us, stored in medical labs, nowadays these tools are in our smartphone. As if individuals were corporations, there are expert systems that can be used by any of us to measure and to elaborate statistical figures on the hours we sleep, our calory intake and on how many steps we make in one day. We can even check if on June 30th 2014 we were happier than on June 30th 2013. On this basis we can plan a rational organization of our life. In 2014 we can afford to be men without qualities but not men without quantities.

3. The Quantified Self and the gamification of life

Nowadays, self-tracking and Quantified Self are expressions which are commonly used in newspapers and popular magazines⁵. The term "self-tracking" is related to a wide array of self-measurements that can be carried out through a tablet or a smart phone. Indeed, any kind of human activity can be measured: sport performance, physiological states, behaviors, feelings, vices... These data can then be elaborated, compared and evaluated in order to improve ourselves. The Quantified Self (QS) is the subject and at the same time the object of self-measurement.

This glamorous expression was invented by two editors of *Wired*, Gary Wolf e Kevin Kelly, in 2007. The best account of the “philosophy” of the QS is described by Wolf in a dense article, entitled *The Data-Driven Life*, which was published in the New York Times in 2010. This quotation provides a lot of information about the main characteristics of the QS:

Humans make errors. We make errors of fact and errors of judgment. We have blind spots in our field of vision and gaps in our stream of attention. Sometimes we can't even answer the simplest questions. Where was I last week at this time? How long have I had this pain in my

⁵ For a broader analysis: A. Maturo (2014), *m-Health e Quantified Self: sviluppi, potenzialità e rischi*, «Salute e Società», XIII(3) and A. Maturo, "Vite misurate". *Il Quantified Self e la salute digitale*, in «Sociologia della comunicazione», 2/2014.

knee? How much money do I typically spend in a day? These weaknesses put us at a disadvantage. We make decisions with partial information. (...) Behind the allure of the quantified self is a guess that many of our problems come from simply lacking the instruments to understand who we are. Our memories are poor; we are subject to a range of biases; we can focus our attention on only one or two things at a time. (...) We lack both the physical and the mental apparatus to take stock of ourselves. We need help from machines. (Wolf, 2010: MM38).

Moreover, according to Wolf, there are four factors underlying the birth of the QS: First, electronic sensors got smaller and better. Second, people started carrying powerful computing devices, typically disguised as mobile phones. Third, social media made it seem normal to share everything. And fourth, we began to get an inkling of the rise of a global superintelligence known as the cloud.

Wolf and Kelly, already in 2008, launched the site quantifiedself.com, using the slogan “Self-knowledge through numbers”. The site has stimulated the creation of groups of “quantifier selfers” in more than fifty cities (there is one also in Milan). The QS groups organize an annual global “meet up” and many local conferences. As it is easy to understand, the philosophy at the basis of this movement is positivism: an immense trust on data. The QS attitude can also be conceived as taylorism applied on the individual, instead of the firm. Yet, it is a “fancy” taylorism. In fact, an important component of the QS is gamification. For example, our smartphone screen which flashes if we run faster than usual or the congratulations received by our virtual identity from other anonymous users if we are successful in cutting down on the number of coffees drunk in a week.

We can have fun even when saving money. At least this is the aim of Toshl, an app which functions like the old expenses notebook. Indeed, as was written in the first review posted on Google Play, Toshl is a “personal expense tracker made fun”. More specifically, Toshl “allows us to understand where we spend our money as it tracks expenses and incomes with ease, it makes budgets for specific tags and it compares the rate of your spending with the time of the month”. To sum up: “Toshl is like your personal financial advisor that is with you all the time. Except it is less awkward in bed”. According to Barber (2007), gamification is totally consistent and coherent with the infantilization promoted by consumeristic capitalism. According to Barber (2007), in affluent society childhood becomes shorter, youth stretches out and ageing shrinks. The market offers videogames for all ages and even when you are seventy it is ok to have ten pairs of sneakers, psychedelic t-shirts and pink sun-glasses. This is not surprising as we pass the time posting likes and emotikons on the social networks :-). Moreover, thanks to botox and viagra,

the “adultescents” are able to virtually postpone the ageing process (Maturo, 2012a).

Even the success of populist political movements can be seen as the effect of the infantilistic ethos that characterizes our society. Indeed, the infantil-voters reward simplistic slogans, quick wit and whoever tell them that things are either black or white. Anything complex, blurred, or in need of reasoning must be avoided.

As written in *The Economist* (2012), the early adopters of these apps, are mainly: “fitness freaks, technology evangelists, personal-development junkies, hackers and patients suffering from a wide variety of health problems”. Indeed, as mentioned before, care is a field where quantification is certainly needed. In fact, the idea that we will always be in need of Care is not new at all, as written by Hyginus (64 b.c – 14 a.c.):

As Care crossed a stream one day, she saw some clay: picking up a piece in contemplation, she began to shape it. While she reflected upon what she had created, Jupiter approached her. Care asked him to provide spirit to the clay form. This he was pleased to do for her. But when she wished to apply to the creation her name, Jupiter forbade it, saying that his name ought to be applied. While ‘Care’ and Jupiter argued over the name, the earth (Tellus) approached and asked that the creation to be named after her since she had, afterall, given it a part of her body. The three contenders then asked Saturn to settle the matter. And Saturn gave them decision, seemingly just, as follows: ‘You, Jupiter, because you have provided the spirit, should receive the spirit when the creature dies; you, earth, because you provided the body, should receive the body. But because ‘Care’ first shaped this creature, so must it be that she possesses it for the time of its life. And because the name is subject to dispute, so should it be that it is called “homo,” since it is made out of earth (“humus”).’

-Gaius Julius Hyginus, *Fabulae*, ccxx “Cura”

4. Conclusions: the charme of technological solutionism

On the basis of this analysis it seems that health and wellness apps will foster the trend to “healthiness”. Consumers have new tools to make health and lifestyles choices (Secondulfo, 2012). They can find virtual encouragement (in terms of on-line support) and they can stock sophisticated data on the activities they are measuring. On this basis, self-improving strategies and self-building actions can be performed. Moreover, it is hard to deny the improvement the apps bring to the medical realm. Quantification can play a big part in health promotion and a behuge support for self-medication.

Asis stated in a recent document edited by the European Commission: “(m-Health) can contribute to the empowerment of patients as they could manage their health more actively, living more independent lives in their own

home environment thanks to self- assessment or remote monitoring solutions" (EC, 2014, p. 3).

It should be pointed out that the QS, being based on mathematic and statistical formalizations, is consistent with the increasing conceptual medicalization of society (Maturò, 2009a) and its therapy culture (Furedi, 2004). Indeed, the biomedical discourse becomes common also in fields out of medicine, such as food advertising and consumption (Moss 2013). Also, accounts based on biology, if not genetics, for explaining social phenomena are increasingly provided (Maturò 2012a; 2012b). As a consequence any small human ailment is framed as a deficit that deserves a treatment. Diagnostic tools become more sophisticated and any deviation from the average is labelled as abnormal (Horowitz 2008; Jutel 2009).

In this cultural context, the enormous potential of quantification for self-tracking offers a great possibilities for constructing big personal data depots. Therefore, the QF provides the ideal ground for measuring deficit and differences and, as a consequence, for searching treatments. Doing so we are invited to think about ourselves, as if we were corporations. Picking up some self-building expressions, we could summarize in this way: self-monitoring stimulates self-management actions that, in turn, foster a self-entrepreneurship attitude. However, some caveats must be mentioned. Specifically, there are three main criticisms to the Quantified Self philosophy: the strong belief in technological solutionism; the bracketing of social factors in the construction of health; the empirical difficulty to live a quantified life.

Evgeny Morozov is probably the scholar who has provided the harshest criticism against the internet pundits. Specifically, Morozov (2013) put at the center of his discourse the concept of technological solutionism. With this concept, he indicates the attitude, fostered by internet, to look for the solution of extremely complex problems by relatively simple algorithms. For example, losing weight becomes a matter of calory intake. Focusing on calories just because they are easy to quantify is limiting while thinking about nutrition. This one-dimensional measuring is welcomed by corporations: "There is no reason why the food industry would feel threatened by self-trackers: as long as such schemes are tied to just one popular indicator, both the manufacturing and the marketing processes can be reconfigured accordingly" (Morozov, 2013, p. 252). More broadly, through quantification it is easy to transform complex problems into a set of simpler issues and find a (partial) solution for each of them. Of course, this is not a bad thing *per se*, yet when applied to dramatic social problems it can produce false answers. To summarize: "The flight from thinking and the urge to replace human judgement with timeless truths produced by algorithms is the underlying driving force of solutionism" (Morozov, 2013, p. 253).

The second criticism is that quantification and solutionism implicitly deny the fundamental role of social factors for individual health. One of the few certainties of sociology of health and epidemiology is the strong correlation between social determinants and health (Link and Phelan, 2010). Education, wage, lifestyles and urban setting are all - even if with different magnitude - aspects strictly connected to health and illness and, therefore, to obesity. In many ways, social inequality and social contexts shape health and create and recreates health disparities. Reducing obesity as a matter of calory-intake means underestimate all the social determinants of health.

The third criticism emerges from empirical evidence, even if research in this field has just begun. One of the few studies carried out on the Quantified Self found a general decrease in enthusiasm after some months of self-tracking (Choe et al., 2014). Moreover, in connection with the former two points, the research found that the techno-enthusiasts made the common mistake of focusing too much on tracking symptoms or outcome measures but failing to capture the important triggers or context. This failure resulted in not having enough clues on how to improve outcome measures. An individual described: "I've been trying all this biometric tracking trying to be more consistent in my health than have more healthy habits. But the whole time, not just my health habits, but even my tracking habits were completely reliant on my emotional state. So here I was trying to track all these symptoms, and I was completely ignoring the cause." (Choe et al., 2014, p.9).

As said, the medicalization process shares this important feature with technological solutionism. Medicalization is the process by which social problems become increasingly labelled - often through a diagnosis - as medical problems. Therefore, complex problems arising from social and political factors are addressed by medical solutions. A typical example of medicalization is the ADHD epidemic in the United States: millions of unruly children diagnosed with a mental disorder and therefore treated with amphetamines (Maturo, 2013b). A strong belief in science and technology and a parallel underestimation of society forces underlies both technological solutionism and medicalization

On this basis, it is out of the question that the apps present huge advantages for managing different kinds of illness (EC, 2014). The apps can help us live a better life, especially in situations of chronic disease or for the improvement of lifestyles. However, it should be should underlined that there are risks for those who do not have the desire to quantify themselves in social networks, as Morozov points out: "The danger here is quite obvious: if you are well and well-off, self-monitoring will only make things better for you. If you are none of these things, the personal prospectus could make your life

much more difficult, with higher insurance premiums, fewer discounts and limited employment prospects” (Morozov, 2013, p. 240).

In different ways, as shown by the example of medicalization, these trends of human enhancement are at work in our society (Maturo, 2012c; 2009b). In politics, complexity is reduced through glamorous slogans, while in some science-based approaches, as the Quantified Self, it is reduced through attractive algorithms. It is crucial to remember that there is always a simple answer to a difficult question, but usually it is wrong.

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