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## **Health and Social Representations: A Structural Approach**

MARIE-ANASTASIE AIM<sup>a</sup>, THIBAUT DECARSIN<sup>a</sup>, INNA BOVINA<sup>b</sup> & LIONEL DANY<sup>a, c</sup>

<sup>a</sup> Aix Marseille Univ, LPS, Aix-en-Provence, France

<sup>b</sup> Moscow State University of Psychology and Education, Faculty of Forensic psychology, Moscow, Russia

<sup>c</sup> APHM, Timone, Service d'Oncologie Médicale, Marseille, France

Since the development of the theory of social representations (Moscovici, 1961/1976), many studies have focused on health-related objects. Although the social representation of health has already been studied through a socio-genetic/anthropological approach (Herzlich, 1969), it has never been studied in relation to the central core theory (Abric, 1994). Health is a complex and composite object, but it is also normative and normalised. The aim of this research was to underline the representational content of such an object of social representation. To do so, 120 participants took part in the study. They were asked to complete a verbal association task and the data were processed by using both rank-frequency processing and importance-frequency processing as well as similarity analysis. Findings showed an impact of the method on the centrality hypothesis. Well-being and (absence of) illness appeared as the central elements in the case of rank-frequency processing, while only

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Correspondence concerning this article should be addressed to Marie-Anastasie Aim, Laboratoire de Psychologie Sociale, Maison de la Recherche, Université d'Aix-Marseille, 29, Avenue Robert Schuman, F-13100. Aix-en-Provence (France). E-mail: [marieana.aim@gmail.com](mailto:marieana.aim@gmail.com)

well-being was highlighted as a central element in the case of importance-frequency processing. In addition, the similarity analysis enabled us to identify five clusters around which health-related representation is organised (positive feelings and health-related assets, overall health, health-related expressions, medical health, and health management/monitoring). The discussion of these results will focus on the characteristics of the object, but also on theoretical-methodological aspects.

**Keywords:** social representations, structural approach, method, health

As a content and process, social representations (SRs; Moscovici, 1961/1976, 1984, 2001, 2008) constitute a particular modality of knowledge that is usually referred to as everyday discourses. They are collectively produced and shared and participate in “the elaboration of a reality that is common to a social group” (Jodelet, 1989, in Abric, 1996 p. 77). SRs have four essential functions: (a) a function of knowledge (understanding and explaining reality), (b) an identity function (defining and maintaining individual and group identity), (c) a guidance function (guiding behaviours and practices), and (d) a justifying function (justifying behaviours and standpoints a posteriori) (Abric, 1994).

As one of the constitutive paradigms of social psychology for the study of social thinking across the world (e.g., Abric, 1994; Jovchelovitch & Priego-Hernández, 2015; Wagner & Hayes, 2005), numerous approaches linked to various methodological and theoretical perspectives have been proposed (e.g., Abric, 2003; Lo Monaco, Delouvé, & Rateau, 2016). The present study is in line with the central core theory or structural approach of SRs (Abric, 1976). This approach conceives SRs as organised and structured sets of meanings, beliefs, views, and attitudes. They constitute a particular socio-critical system composed of two interacting and qualitatively different sub-systems that are the *central system* and the *peripheral system*. According to this theory, every representation is based on a central core (or central system).

— The *core system* is composed of a small number of elements which are consensual, stable, coherent and rigid, and not sensitive to the immediate context (i.e., modification by episodic circumstances) (Abric, 2001). The central status of these elements is not only due to the quantitative dimension (i.e., the salience of an element), but also to a qualitative dimension (i.e., it gives its meaning to the representation). This system has both a *generating function* (it generates the global meaning of the representation) and an *organizing function* (it determines the relationships between its constitutive elements).

— The *peripheral system* is the largest part of the representational content. Peripheral elements are in direct relationship with the central system. As they are more concrete, diverse and flexible than the central core elements, they appear as an interface between the central core and concrete situations (Abric, 1994). Thus, this system helps to defend the core system against contradiction due to its flexibility (i.e. the peripheral system manages to justify the contradiction in the case of an event challenging the meaning of the central core).

Research carried out within the framework of the central core theory have *a minima* the objective of studying whether the representational elements are central or peripheral in nature.

### **Health and social representations**

Since the development of the theory of social representations (Moscovici, 1961/1976, 2008), many studies have focused on health-related objects (e.g., Apostolidis & Dany, 2012; Bovina, 2006; Jeoffrion, 2009; Joffe & Staerklé, 2007). The interest in studying health problems and objects can be partly explained by the particular attention that contemporary societies pay to health issues, and more specifically to “good health behaviours” (e.g., Fassin & Memmi, 2004; Foucault, 2004; Lupton, 1995). However, the specific characteristics of health, due to its socio-historical inscription and its place in the socio-symbolic space, make it a relevant object and field of study for the development of the theory of SRs. Conversely, the SRs’ approach offers a heuristic framework for understanding health-related psychosocial issues (e.g., Apostolidis & Dany, 2012; Morin, 2004, 2006). Indeed, it allows us to study the correspondence and the reciprocity of the perspectives between the order of ideas and the social order (cf. Apostolidis & Dany, 2012). This social question is also partly involved in some theoretical and methodological issues. Actually, through their work, researchers are facing the dynamic and complementary nature of the health/illness pair. Health is usually understood as a lack of illness and illness as health deprivation (cf. Herzlich, 1969). Health is a quasi-paradigmatic object which allows us to examine the link between social and representational systems and understand the connections between the “biological” and “social” orders. In other words, “our representations do not only tell us about the relationship with bodily phenomena and our own state of health, but also about relationships that, through it, we maintain with others, with the world and the social order” (Herzlich, 2001, p. 198).

Health contributes at the same time to individual, relational, identity, group and societal issues. It is both a social value and a state (somatic, psychic, and social) being limited and measured as accurately as possible in order to make it an object of research and

investigation (e.g., Apostolidis & Dany, 2012; Herzlich, 1969). Health is also a complex object because it cannot be understood, from a socio-representational angle, without reference to other objects (e.g., illness, risk, body, society) which update it and help to give it meaning (cf. Herzlich, 1969). It must be considered as a composite element of an absence of illness, balance or homeostasis, function, and state or status (Blaxter, 2016). Another important aspect of health as an object of representations relates to the fact that individuals facing the meaning of health are often led to draw on distinct modalities of knowledge of reality related to their health, illness, or risk (e.g., medical, social, emotional and sensitive knowledge) based on interactions, social relationships and situations with which they feel they are confronted (Apostolidis & Dany, 2012). In other words, knowledge related to health can be considered as polyphasic. The term “polyphasic” evokes the notion of cognitive polyphasia suggested by Moscovici (1961/1976). It “refers to a state where different kinds of knowledge, using different types of rationality can coexist in an individual or within a group” (Jovchelovitch, 2006, p. 215), which is particularly prevalent in the health field. According to Jovchelovitch and Priego-Hernández (2015):

States of cognitive polyphasia show that knowledge is incomplete because it is embedded in processes of social exchange and adaptation. This may take us away from the exactitude of formal logic but provides a more realistic view of human cognition, reuniting the epistemic and the social psychological subject (p. 168).

Health is a particularly effective field for the use and the interchangeability of different types of knowledge (cf. Apostolidis & Dany, 2012; Jovchelovitch & Gervais 1999; Legare & Gelman, 2008; Provencher, 2011; Renedo & Jovchelovitch, 2007). Because of its inclusion in social exchange and adaptation processes, this knowledge is incomplete (Jovchelovitch & Priego-Hernández, 2015). Common sense thoughts related to health underline the “functional” character of SRs as a tool for anticipation, adaptation, and as a “component” of the adaptability and identity of individuals and social groups (cf. Abric, 2011; Jodelet, 1984, 1989, 1998).

## **AIM OF THE STUDY**

Health is a complex and composite object (e.g., Apostolidis & Dany, 2012; Herzlich, 2001), but it is also normative and normalised (e.g., Lupton, 1995). The study of health as a representational object raises methodological and epistemological issues, like the limits of this object or the influence of data collection methods on the mobilisation of different types of available knowledge. The study of such an object within the framework of the structural approach of the SRs could help to clarify the complexity of health and highlight the elements around which its different components are connected. Therefore, the aim of the present study was to underline the representational content and structuration of the SR of health.

## **METHOD**

### **Participants**

The sample was created by taking into account two variables: (a) age (18-29 years, 30-44 years, 45-59 years, and 60-75 years) and (b) gender (male and female). The age groups were defined by taking as reference the age groups typically used in public health research in France (e.g., Beck, Guilbert, Gautier, & Lamoureux, 2007). A total of 120 participants (15 men and 15 women by age group) participated in the research. Participants were recruited in public places of different regions of France (Provence, Corsica, and Normandy). All participants were volunteers and data were collected via a paper and pencil survey.

### **Materials and Procedure**

*Representational content* – Three successive steps were carried out: (a) participants were asked to produce four words that came spontaneously to their mind based on the stimulus word “health” (free associations task, Vergès, 1992); (b) they had to rank the four words produced in accordance with their perceived importance (Abric, 2003; see also Dany, Urdapilleta, & Lo Monaco, 2015; Lo Monaco, Piermattéo, Rateau, & Tavani, 2016); (c) finally, they had to produce a phrase for each of the four words in order to contextualize it (see Piermattéo et al., 2014).

*Health variables* – Participants were asked to complete several items. (a) The Medical Outcomes Study Short-Form General Health Survey (Gandel et al., 1998) was used to assess quality of life. It is composed of 12 items such as ‘In general, would you say that your health is excellent, very good, good, fair, or poor?’ or such as “How much of the time during the past four weeks did you have a lot of energy?” (for items of this type, several response

modalities were proposed: 1) All of the time 2) Most of the time 3) Some of the time 4) A little of the time 5) none of the time). This scale consists of two parts: perceived physical health and perceived mental health. (b) Participants were also asked to complete 12 health behaviour items (derived from Beck, Guilbert, Gautier, & Lamoureux, 2007), such as “In the past seven days, how many days have you taken part in moderate physical activity such as carrying lights loads, vacuuming, gentle cycling? Please do not include walking.”. Two health status items regarding chronic illness (i.e. “Do you have a chronic illness, that is, an illness that lasts a long time – at least six months – and may require regular care?”) and official recognition of a disability or a loss of autonomy (i.e. “Have you received official recognition of a disability or loss of autonomy (allowance, pension or disability card, etc.)?”) were added (for both items, response modalities were 1) yes, 2) no, 3) I don’t know). We opted for these variables in order to study the relationship between participants and health, and its potential effect on the representational content (cf. Boussoico, Dany, Giboreau, & Urdapilleta, 2016).

*Demographic variable* – Gender, age, and socioeconomic status (professional status and highest level of educational attainment), were self-reported. Professional status was categorized as employed and unemployed, and the level of education was categorized as the French baccalaureate or lower and higher than the French baccalaureate.

### **Data Analyses**

As a first step, the free associations corpus was analysed using the IramuteQ program. This software program highlights the content of an SR and reveals the organising elements of this content on the basis of a lexicographical analysis. As recommended by Dany and his colleagues (2015), we chose to use both *rank-frequency processing* and *importance-frequency processing*. This processing is based on the cross-tabulation of the appearance frequency of the term and its mean appearance/importance ranking: the named terms are considered as more or less salient on the basis of these criteria. The cross-tabulation of rank-frequency processing or importance-frequency processing allows us to produce a four-cell table which represents the four distinct zones of the representations (see Table 1). For the rank-frequency processing (Vergès, 1992) (1) cell one contains the elements which have a high probability of forming the “*organising core*” of the representation (cited first and also frequently cited); (2) cell four contains the terms of the *periphery* (the least frequently cited and cited last); and (3) cells two (high frequency and low ranking) and three (cited first with low frequency) constitute the *potential change zones*. Concerning importance-frequency processing (Abric 2003): (1) cell one contains the potentially *central elements* (the most important and

frequently cited); (2) cell three constitutes the *contrasting elements zone* (the most important with low frequency); (3) cell two contains the elements of the *first periphery* (less important but frequent terms); and (4) cell four contains the elements of the *second periphery* (infrequent and unimportant terms). Both types of method were carried out for the terms mentioned at least five times.

**Table 1** Analyses of rank-frequency method (as defined by Vergès 1992) and importance-frequency method (as defined by Abric 2003)

Frequency	Rank/Importance	
	High	Low
High	- Cell 1 - Core zone <sup>a,b</sup>	- Cell 2 - Potential change zone <sup>a</sup> First periphery <sup>b</sup>
Low	- Cell 3 - Potential change zone <sup>a</sup> Contrasting elements <sup>b</sup>	- Cell 4 - Periphery <sup>a</sup> Second periphery <sup>b</sup>

<sup>a</sup>Refers to rank-frequency method. <sup>b</sup>Refers to importance-frequency method.

As a second step, a *similarity analysis* (Flament, 1981) was conducted based on the free associations collected. Since the previous analyses were performed on the raw data (although lemmatized), a database clean-up was performed, and some terms were re-categorized to clarify the results of the similarity analysis. For example, the terms “cancer” and “AIDS” were recoded “disease”, “vitality”, “vigour” and “energy” were recoded “being in good shape”, and “check-up” and “laboratory analysis” were recoded “medical follow-up”. The similarity analysis is based on Graph Theory. This brings to light the underlying structure of the internal organisation of the elements by exploring the graph of a relationship between two terms (e.g., the co-occurrence between “well-being” and “illness”). These relationships are assessed on the basis of a numerical value that is the co-occurrence index. Similarity analysis thus makes it possible to distinguish high (i.e. “strong” relations) co-occurrence between the different terms of the representations to generate the maximum tree (i.e. presentations of the internal organisation of the elements in graph form). The interpretation of the data (the reading of the graph) is carried out “step-by-step” (each element is interpreted in relation to the other “neighbouring” terms) which reveals thematic clusters (substructures or sub-dimensions of representations). The product graph illustrates the socio-cognitive structure



associated with the object under study. In order to facilitate data reading and interpretation, the analyses were conducted for the thematic categories within a minimum of six occurrences.

As a third step, a *thematic content analysis* (Flick, 2014) of all the terms mentioned by the participants (from the raw data) was performed on the basis of contextualisation sentences that were produced. Firstly, researchers studied the content of these sentences in an independent manner to produce thematic categories related to health. Then, a joint agreement was reached on the identification of thematic categories (cf. Denzin, 1976).

Finally, as a fourth step, all “health-related” (quality of life, health behaviours and states) and socio-demographic (age, socioeconomic status, cultural capital) variables were dichotomized. A *chi-square test* was applied with the aim of studying the potential links between those variables and the representational content (thematic categories) mentioned by participants.

## RESULTS

*Representational field: rank-frequency.* The rank-frequency processing of the corpus demonstrated that the terms “illness” and “well-being” formed part of the organising core (cell one) (Table 2). The terms “balance”, “good shape”, “good”, “life”, “happiness”, “care” “medical”, “healthy lifestyle”, and “longevity” (cell three), and “hospital”, “sport”, “medication”, and “doctor” (cell two) were found in the potential change zone. Moreover, the terms “diet”, “prevention”, “good mood”, “freedom”, and “cancer” were found in the periphery (cell four).

**Table 2** *Representations of health amongst French participants (N = 120) - rank-frequency method*

Frequency	Rank	
	High	Low
High	Well-being (27; 2.4) Illness (23; 2)	Hospital (30; 2.9) Doctor (19; 2.6) Sport (16; 2.5) Medication (11; 2.9)
Low	Balance (10; 1.9) Good shape (9; 1.6) Good (9; 1.8) Life (8; 1.8) Happiness (8; 1.9) Care (8; 2.2) Medical (7; 2.4) Healthy lifestyle (6; 2.3) Longevity (5; 2.4)	Diet (9; 2.9) Prevention (6; 2.5) Good mood (5; 3.6) Freedom (5; 3.2) Cancer (5; 3)

*Note.* The figures in brackets indicate the frequency and the average rank in which the terms were named.

*Representational field: importance-frequency.* The importance-frequency processing of the corpus demonstrated that the term “well-being” formed part of the central core zone (cell one) (Table 3). Also, the terms “balance”, “good shape”, “good”, “life”, “happiness”, “care” “medical”, “healthy lifestyle”, “prevention”, and “good mood” were found in the zone of contrasting elements (cell three). In the first periphery, words such as “hospital”, “illness”, “sport”, “medication”, and “doctor” were found (cell two). Finally, the terms “diet”, “freedom”, “longevity”, and “cancer” were found in the second peripheral zone (cell four).

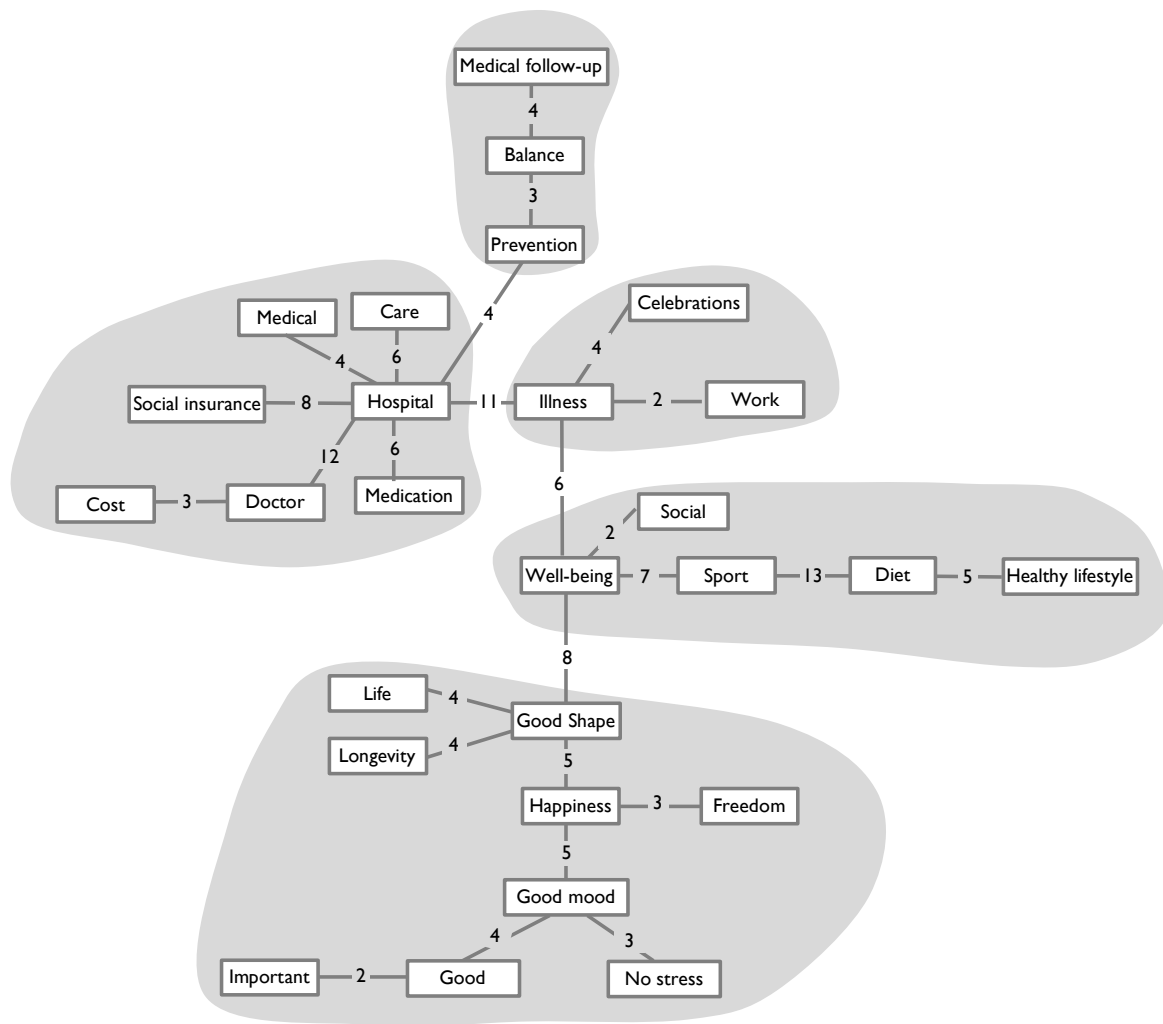
**Table 3** Representations of health amongst French participants (N = 120) - importance-frequency method

Frequency	Importance	
	High	Low
High	Well-being (27; 2.2)	Hospital (30; 2.9) Illness (23; 2.6) Doctor (19; 2.7) Sport (16; 2.6) Medication (11; 2.7)
Low	Balance (10; 2.1) Good Shape (9; 2.4) Good (9; 1.8) Life (8; 1.6) Happiness (8; 1.4) Care (8; 2.1) Medical (7; 2.1) Healthy lifestyle (6; 1.7) Prevention (6; 1.8) Good mood (5; 2.4)	Diet (9; 3.1) Longevity (5; 3.2) Freedom (5; 2.8) Cancer (5; 2.6)

*Note.* The figures in brackets indicate the frequency and the average importance in which the terms were named.

*Similarity analysis.* The health similarity analysis (Figure 1) reveals five “dimensions”. The first cluster refers to *positive feelings and health assets*, which involves feelings such as “happiness”, “freedom”, (being in a) “good mood” and is organised around (being in) “good shape” (linked to longevity, life and happiness). This cluster is connected to the second cluster by the link (being in) “good shape” / “well-being”. The second cluster relates to *overall health*. It is organised around “well-being”, “sports” and “diet” and also refers to a “social” and “healthy lifestyle”. The third cluster concerns health-related expressions and covers “illness”, “work” and the phrases used during celebrations (e.g., “health means not being sick”, “work is health”, “happy new year and good health”). The term “illness” links this cluster to cluster 4, which deals with *medical health*. It is particularly related to the medical and hospital environment as well as healthcare costs. The last cluster, which is linked to the previous one by “hospital”, concerns *health surveillance/management* (prevention, balance, and medical follow-up). These five clusters can be partitioned into two “representational worlds” connected by the well-being-illness link. The pole initiated by well-being can be considered as *positive health*, while the pole induced by illness refers to *health in a vacuum* (i.e. health as the absence of illness).

**Figure 1** *Similarity analysis of representational content of health*



*Thematic categorisation.* Thematic categorisation of the raw data allowed us to group the 223 terms/expressions mentioned into eight categories: health maintenance (e.g., sport, diet, activity, prevention) (27% of the corpus); feelings (e.g., well-being, happiness, freedom, good shape) (23%); medical (e.g., hospital, doctor, medicine) (23%); deterioration of health (e.g., illness, pathology, cancer, concern) (11%); importance (e.g., life, essential, important, family) (7%); public health (e.g., social insurance, cost, citizenship) (4%); expression/rituals (e.g., work, aperitif, cheers) (4%); and hapax (e.g., world, program, my job) (1%).

*Variables effects on SR content.* Chi-square tests were carried out for the following variables: quality of life, health behaviours, and socio-demographic variables ( $N = 17$ ) and the different thematic categories ( $N = 7$ ). Only two results were significant. Employed participants mentioned more terms related to the category “public health” than unemployed participants ( $\chi^2(1, N = 120) = 4.85 ; p < .05$ ). Moreover, participants with higher educational

qualifications mentioned more terms related to the category “public health” than participants having fewer qualifications (baccalaureate or lower) ( $\chi^2(1, N = 120) = 5.79 ; p < .05$ ).

## DISCUSSION

This study aimed to explore the content and the structural characteristics of the SR related to health. To do so, we used several types of analyses based on the free associations produced by the participants.

Two techniques of free association analyses were conducted (rank-frequency processing and importance-frequency processing). These two types of analysis allowed us to highlight two distinct centrality hypotheses. The centrality hypothesis associated with rank-frequency processing focuses on well-being and illness, while the importance-frequency analysis only considers well-being as central (illness being considered as part of the first periphery). These results are consistent with those highlighted by Dany and his colleagues (2015) while studying the representations of cancer, palliative care, and academic success. Their research highlighted a “reorganisation” between rank-frequency processing and importance-frequency processing. Appearance ranking could be considered as a “criterion of prototypicality” (Dany et al., 2015, p. 503). Thus, rank-frequency processing may highlight the prototypical elements of the object studied. Indeed, “the speed of association is not only an expression of the strength of the associative link and therefore of its salience, but also of its accessibility in terms of the widest prototypical consensuality” (De Rosa, 2003, p. 88). However, *a posteriori* importance-ranking allows us to “re-contextualise” representational elements and to focus on the “indispensable aspect of the social element” (Semin 1989 in Dany et al., 2015, p. 504). In that perspective, we might consider “illness” (or “absence of illness”) as a highly prototypic element of health but not as an “indispensable aspect” of the SR of health, and therefore as a central element. In other words, it’s not just about feeling ill (or being sick), but mostly about feeling well.

Moreover, the similarity analysis highlighted two “representational worlds” associated with health (i.e. positive health and health in a vacuum) that are interconnected through the well-being-illness relationship. This analysis, coupled with the results of previous analyses, leads us to consider the consubstantiality of Lerich’s definition of health (1936), according to which health is “life in the silence of the organs”, and that of the World Health Organization (WHO; 1946), which defines health as “a state of complete physical, mental and social well-

being and not merely the absence of disease or infirmity”. Thus, it would seem that “health is the luxury of being able to fall ill and recover” (Canguilhem, 2008, p. 132), that is, to be able to “recover”<sup>1</sup> from illness to “return” to a state of well-being. The link between well-being and illness can also be considered from the perspective of health improvements and preservation. Indeed, the elements associated with the positive health pole can refer to the elements allowing one to improve<sup>2</sup> one’s health and to feel the benefits (e.g., sport, diet, to be in shape, longevity, happiness). The elements of the “health in vacuum” pole echo two aspects of health preservation: the revival of health linked to the medical health dimension, and the maintenance of health linked to the health surveillance/management dimension. Concerning the last dimension, we find it interesting to highlight the impact of the medical (and related standards) on prevention and balance. The presence of these elements in the context of “health in a vacuum” leads us to consider prevention and balance (e.g., *not* eating food that is *too* fatty, *too* sweet or *too* salty) as a way to not be ill rather than a way to feel good / better (e.g., “smoking clogs the arteries and causes heart attacks and strokes” written on cigarette packets in France). Considering WHO’s desire to propose a more positive vision of health (i.e. a complete state of well-being that is not merely the absence of disease), we may wonder about the low number of prevention campaigns that accentuate the gains associated with the implementation or cessation of certain practices. In addition, the presence of the “health-related expressions” dimension in the maximum tree testifies to the significant social inscription of health via everyday life exchanges (e.g., Morin, 2004, 2006; D’Houtaud & Field, 1989). The presence of the “positive feelings and health assets” dimension, which places the focus on the individual’s subjectivity (i.e. the fact of feeling good being not necessarily a reflection of the biological state), seems even more relevant because it reveals issues relating to the absence of stress (e.g., Bruchon-Schweitzer, 2002; Lazarus & Folkman, 1984) and freedom. Note that freedom can refer to autonomy (e.g., Foucault, 2008; Joffe & Staerklé, 2007; Rose, 2000), but also to a sense of freedom that refers more to a conception in terms of emancipation (being able to do what one desires instead of what others want us to do). Thus, the coexistence of all the dimensions highlighted reflects the cognitive polyphasia associated with health (e.g., Apostolidis & Dany, 2012).

More generally, this study has allowed us to highlight the main terms of the representational content (e.g., illness, well-being, balance, doctor, care, healthy lifestyle) as

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<sup>1</sup> If for Canguilhem (2008) regaining health is a biological luxury, we consider for our part that it is a matter of feeling healthy again, which is not necessarily an improvement at biological level.

<sup>2</sup> To improve is understood here in the sense of accentuating and amplifying a level of health that is “already there”, and not of recovering health that has been (temporarily) weakened.

well as thematic categories related to health (health maintenance, feelings, medical, deterioration of health, importance, public health, expression/rituals). Our results are consistent with studies on lay thinking about health (e.g., Blaxter, 2016; D’Houtaud & Field, 1989; Herzlich, 1969). Lifestyle and personal responsibility (e.g., sport, balance, prevention, diet) are mentioned in numerous studies (e.g., Blaxter, 2016, Herzlich, 1969). Health constitutes a “potential of resistance” (Herzlich, 1969, p.48) to illness. This potential of resistance is developed and maintained through preventive behaviours. Consequences of this maintenance (e.g., well-being, condition, happiness, moral, longevity) have already been identified in the literature. Also, “illness” and the medical-related thematic category (e.g., hospital, care, medication, and doctor) suggest that health is considered as a lack of illness (Herzlich, 1969) as previously mentioned. Otherwise, the marginal influence of the variables studied (quality of life, health behaviours, and socio-demographic variables) expresses the social sharing of health-related knowledge and value (e.g., Bell, 2017; Lupton, 1995). Thus, health is everyone’s business” (Morin, 2006). Although it only accounts for a small proportion of the corpus collected, the results highlighted the impact of professional activity and level of studies on the development of the “public health” theme. Work on health inequalities has already underlined the impact of these variables on health practices and knowledge (e.g., Aïach, 2010; D’Houtaud & Field, 1989). Regarding public health, the political and economic determinants of access to care are closely linked to the employment held by individuals in the French context. More concretely, the type of activity (e.g., agricultural worker, self-employed, military worker, unemployed, student) determines the social security system to which the individual is affiliated, which has an impact on the financial coverage of health needs (e.g., Borgetto, 2007).

Using the structural approach, this study allowed us to develop centrality hypotheses regarding the representational structure associated with health. However, the procedures put in place do not allow us to establish a diagnosis of centrality (cf. Abric, 2003). It will thus be necessary to use a centrality test (cf. Lo Monaco, Piermattéo, Rateau, & Tavani, 2016) in order to assess this diagnosis in future research. Moreover, the dimension emphasised by the internal organisation of the representational structure of health makes it possible to point out the relationship of correspondence and reciprocity between the social order and health-related knowledge (cf. Apostolidis & Dany, 2012). Health-related expressions are part of daily social interactions and contribute to the representational organisation of health. In addition, health policies, institutions and norms present in the social and societal environment also have an

impact on health-related representational content (e.g., hospitals, social insurance, prevention, sport, diet).

Despite the interest of this study, some limits should be underlined. Although health is a collectively developed and shared object, the social affiliation and participation of individuals lead them to develop specific health practices and knowledge. In this respect, it could have been relevant to study further the specificities linked to the variables considered (quality of life, health behaviours, and socio-demographic variables). Moreover, the use of the dichotomization of professional activity (i.e. without professional activity and with professional activity) and level of education (baccalaureate and lower and higher than a baccalaureate) does not allow us to make a particularly detailed analysis of the results as a matter of the numerous realities that these variables represent.

To conclude, this study has highlighted some elements of stability concerning knowledge associated with health in the French context (e.g., D'Houtaud & Field, 1989; Herzlich, 1969) but also, more broadly, in the Western context (e.g., Bell, 2017; Blaxter, 2016; Lupton, 1995) (e.g., absence of illness, balance, health capital, important/value). As a composite object, some aspects of health are inscribed in time and space. Indeed, our results provide evidence of the sociogenesis (i.e. SRs present in the social environment; cf. Rouquette & Garnier, 1999) related to health via daily exchanges and practices (e.g., expressions related to health, lifestyle, diet) as well as public health institutions and policies (e.g., hospital, social insurance, cost). In this regard, it should be noted that the WHO, and the definition of health it promotes, functions at an international level. However, although certain elements may be transversal to various sociocultural environments, it seems to us that the specificities of these contexts (e.g., health system) have an impact on representations as well as on the more concrete and material expressions of health (e.g., access to care). It therefore seems appropriate to study SRs associated with health in various sociocultural contexts in order to explore possible modulations.

## **COMPETING INTERESTS**

The authors declare that they have no competing interests in publishing this article.

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MARIE-ANASTASIE AIM is PhD. student at the Laboratory of Social Psychology of the University of Aix-Marseille. Her main research interests focus on social representations (methodological issues, theoretical development, social representations of health and illness) and social psychology of health (perceptions and representations of health and illness, body image). Contact Email: [marieana.aim@gmail.com](mailto:marieana.aim@gmail.com)

THIBAUT DECARSIN is health social psychologist. He is currently working in the field of home care assistance for the elderly and/or individuals with disabilities. *His main research interests* focus on social representations (theoretical and methodological issues) and social psychology of health (perceptions and representations of care, care practices). Contact Email: [thibaut.decarsin@gmail.com](mailto:thibaut.decarsin@gmail.com)

INNA BOVINA is Professor of Health and Social Psychology at the Department of Clinical and Forensic Psychology of the Moscow State University of Psychology and Education. *Her main research interests* focus on social representations (theoretical development, social representations of health and illness, representations of the past) and social psychology of health (prevention). Contact Email: [innabovina@gmail.com](mailto:innabovina@gmail.com)

LIONEL DANY is professor of Social Psychology and researcher at the Laboratory of Social Psychology of the University of Aix-Marseille. *His main research interests* focus on social representations (methodological issues, theoretical development, social representations of health and illness, representations of risks) and social psychology of health (perceptions and representations of illness and care, supportive care, coping). Contact Email: [Lionel.Dany@univ-amu.fr](mailto:Lionel.Dany@univ-amu.fr)