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# CHANGING MASKS: A MASKING EFFECT ON YOUNG PEOPLE'S SOCIAL REPRESENTATION ON AGING?

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**ABSTRACT**

*The study is focused with the structure of social representations, common sense theories about relevant themes. It aims at investigating how central the 'wisdom' element is for young people's representations on aging and also if the results provided by social representation questionnaires could be under the influence of normative pressures favoring politically correct responses, the so-called masking effect. The experimental design involved a within-subjects independent variable which was called representation interaction context, with two modalities: normal and substitution (with participants answering 'as a typical young person'). Dependent variables were the scores of 'calling-into-question' items that assessed the symbolic value of elements related to aging. The sample was composed by Brazilian undergraduates. Results of paired t-tests indicated that on the substitution condition elements with a negative connotation (such as 'death' and 'isolation') had higher symbolic value scores, while the main positive element (wisdom)'s score decreased, indicating that there is a strong effect on the answers associated to interaction context manipulation with the substitution technique. Discussion addresses alternative explanations for the findings, dealing with the influence of sociopsychological biases and group identification as well as the identification criteria of social representations.*

## INTRODUCTION

As an age group, young people usually tend to think that aging is a process that is marked by many negative events, such as illness, proximity of death and loneliness. Yet, at the same time, aging, old age and elderly people are associated to wisdom (Coudin & Beaufils, 1997; Veloz, Nascimento-Schulze & Camargo, 1999; Novaes, 2001; Martins, 2002; Novaes & Derntl, 2002; Mithidieri & Tura, 2003; Moliner & Vidal, 2003; Gastaldi & Contarello, 2006; Gaymard, 2006; Santos & Meneghin, 2006; Hubbard, 2007; Wachelke, 2007; Nagel, 2008). From the perspective of the structural approach on social thinking, the present study aims at investigating how central the 'wisdom' element is for young people's beliefs on aging and also if the results of previous studies could be under the influence of normative pressures that would favor politically correct responses from research participants.

The structural approach on social thinking is an experimental perspective that assumes that people refer to schemes that are generated by their groups in order to interpret data from reality, maintain their identity, guide and justify their practices regarding relevant social issues (Abric, 1994a; Guimelli, 1999; Moliner, 2002). Social representations are its most investigated constructs, related to a phenomenon that has been studied mainly in French social psychology from the 60s (Moscovici, 1961). Social representations are interpretative systems born from intragroup communication, which are useful for group members to deal with the events of everyday life (Moscovici, 1961). Social representations are organized sets of cognitions about a social object that are shared by the members of a population with a relationship with that object (Flament, 1994a). Those cognitions are often operationalized as basic ideas, beliefs or propositions; they are cognitive units that are called cognemes (Codol, 1969).

The main theory dedicated to the understanding of social representation structure is central core theory. It proposes that cognemes are organized in two different systems, each one with specific functions and characteristics: the central and peripheral systems. The central system – often called 'central core' - includes a few representation elements that organize the representation and determine its meaning. Those elements are more stable and resistant to change. Transformation in a representation's central elements would imply a change in the whole representation. (Abric, 1994b).

The other elements form the peripheral system. Peripheral cognemes are more particularized and depend on central ones. Their main function is to adapt the representation to particular reality contexts, linking it to everyday life. The peripheral system is both a set of schemes for social actors regarding actions concerning the object of representation and a sort of 'bumper' that protects the core's elements from being transformed, through the accommodation of changes (Flament, 1994b). Through the interactions of both systems, a representation can be at the same time rigid and stable, on the one hand, and flexible, on the other (Abric, 1994b).

There have been few structural studies focusing the social representations on aging and the elderly person (Mithidieri & Tura, 2003; Moliner & Vidal, 2003; Gaymard, 2006; Wachelke, 2007). They were conducted in France and Brazil with young adult samples. The most recurrent result involves the identification of 'wisdom' as a component of the central core of the related representations. However, the identification of a high number of decrease-related elements in

representational peripheral systems suggests that there is the need to obtain further understanding on the structural role of the representation's elements, with a special emphasis on the schemes related to wisdom and experience, often operationalized as a single element.

Moreover, there are reasons to verify if there are normative influences from data collection procedures taking place. Associating aging with becoming wiser and valuing one's experience is something that could be linked to social desirability. Recent research on social representations points out that frequently participants' responses are given in a way that participants themselves would feel well evaluated by other social actors (Flament, 1999). In a similar context effect, often words or expressions that include negative views about social objects are not expressed when participants give spontaneous answers; such elements appear only when participants are asked to answer as someone from their group would, or when taken away from the regular normative context (Guimelli & Deschamps, 2000). Those elements that do not 'emerge' when there is such influence from the data collection context form the 'mute zone' of a social representation (Abric, 2005). The relative process is currently called a masking effect in social representations (Flament, Guimelli & Abric, 2006). Usually the masking effect is referred to in the case of important representation elements that are not expressed spontaneously. But wouldn't it be the case that some elements seem to be more important (or central) than they really are, due to a normative representational interaction context?

This paper's purpose is to compare the structural status of the main elements related to young people's social representation on aging in both normal and non-normative data collection conditions. We advance the hypothesis that the 'wisdom' element should be structurally among the central elements in the results relative to the normal data collection condition, but it should have its centrality significantly reduced when participants do not face normative restrictions when answering the questionnaire. Otherwise, the reduction of normative pressure might favor an increase in the structural role of negatively connoted elements such as illness, decrease or death.

## METHOD

The study had a simple within-subjects experimental design. Representation interaction context was the independent variable with two modalities: normal conditions, with the participant answering normally, and afterwards as he or she would think that a group member (young person) would do. The dependent variable was the symbolic value of the investigated social representation elements.

### Participants

One-hundred and thirty six undergraduate students from a university from the North-east of Brazil participated of the study. There were 156 participants, 78 from each gender. They were enrolled in various graduation courses: 49 of them (31.4%) in courses related to the health area, 56 (35.9%) in exact sciences and 51 (32.7%) in humanities and social sciences. Mean age was 20.3 years old (SD 2.3 years), ranging from 18 to 28.

## Instrument

A questionnaire with three sections was used to evaluate the symbolic value of a few elements related to the social representation on aging. The symbolic value is considered to be a property that distinguishes between central and peripheral elements. By definition, central elements are essential to define the representation object. The calling-into-question technique is based on the verification of the element's symbolic value, that is, the object – element link (Moliner, 1994). It is composed by a set of questions in which it is asked if the representation object can still keep its identity if it does not include each of the investigated elements, one at a time. When central elements are 'called into question', then individuals tend to say that if they are taken away, it is no longer possible to relate to the referred object. For peripheral elements, on the other hand, it is admissible. An example of a calling-into-question item aimed at verifying the symbolic value of the element 'death' related to the social representation object of aging would be: 'is it possible to think about aging without thinking about death'? A positive answer would convey the meaning that death is not an essential element of the social representation on aging, while a negative one would imply that it has a symbolic value in the sense that it is a vital element to define the object. Therefore, it would likely be a central element.

All questionnaire text was written in Portuguese, Brazil's native language. The descriptions from the current section consider the translation of text to English.

The instrument employed on the current study contained calling-into-question items for 12 items, retained from the literature on the social representations on aging. First participants answered to the normal condition calling into question items, which had the following format: 'is it possible to think about aging without thinking of...?' In each case a social representation element was questioned. Those were the following (in parentheses, the expression employed on the calling-into-question item, when it was different from the item itself): time (the passing of time), suffering, illness (the emergence of illnesses), memory (memory and forgetting information), wisdom (becoming mature and wise), death, decrease (losses in performance involving activities and capacities), retirement, isolation, physical signs (the emergence of physical signs like wrinkles, white hair, and so on), dependence, and family. All items had a four-point response format, with the following options: 1 (certainly yes), 2 (probably yes), 3 (probably no), and 4 (certainly no).

On the following page, there was the substitution condition. Instructions asked participants to 'answer as they thought that a typical young person would'. Then the same calling-into-question items were presented again, but preceded by the following expression: 'For a typical young person, is it possible…'. The substitution technique is one of the established ways of reaching representations' mute zone elements (Abric, 2005). Finally, the instrument contained four items that constituted an identification scale to the young people group, an adaptation of the measure proposed by Doosje, Spears and Ellemers (1995). The group identification measure was a seven-point Likert scale ranging from 1 (not at all) to 7 (completely).

**Procedure**

Participants were invited to answer the questionnaires during their regular classes, with authorization from the teachers in charge. They were told that it was a psychological study about aging, and that participation was completely voluntary. They responded individually in the group setting. Each data collection situation was supervised by a couple of young adult research assistants, who were also psychology graduation students at the time. A total of five students helped in data collection.

**RESULTS**

Mean symbolic value scores were calculated for each element and paired t tests were run to compare means within subjects for both answering conditions. As Table 1 shows, on the normal answering condition the elements 'family', 'physical signs', 'wisdom', 'time' and 'death' had the highest symbolic values related to aging, while elements 'isolation' and 'suffering' had the lowest ones. The remaining elements had intermediate values. The t tests showed that there were significant differences on the substitution condition for all elements except 'time', which remained with a high symbolic value score. Effect sizes were mostly average and big, and the higher ones involved the elements that had the lowest scores on the normal condition, namely 'isolation' and 'suffering'. 'Wisdom' and 'family' were the only elements whose score decreased. Elements that could be considered to have a negative meaning regarding aging ('illness', 'memory', 'decrease', 'isolation', 'suffering', 'dependence') grew in importance. The elements with the highest scores on the substitution condition were 'physical signs', 'death', 'retirement' and 'illness'.

**Table 1. Mean scores and Paired t tests for Symbolic Value of Elements Related to the Social Representation on Aging in Both Normal and Substitution Answering Conditions.**

| | Normal | | Substitution | | | | |
|---|---|---|---|---|---|---|---|
| Element | Mean | SD | Mean | SD | *t* (155) | p | *d* |
| Time | 3.17 | 1.05 | 3.29 | 1.01 | 1.04 | ns | --- |
| Suffering | 1.92 | .94 | 3.00 | 1.00 | 9.57 | > .001 | 1.53 |
| Illness | 2.65 | .89 | 3.28 | .87 | 6.42 | > .001 | 1.03 |
| Memory | 2.57 | .92 | 3.20 | .92 | 6.97 | > .001 | 1.12 |
| Wisdom | 3.25 | .91 | 2.89 | 1.00 | 3.67 | > .001 | .59 |
| Death | 3.14 | .86 | 3.41 | .86 | 3.01 | > .01 | .48 |
| Decrease | 2.97 | .89 | 3.26 | .90 | 3.00 | < .01 | .49 |
| Retirement | 3.02 | 1.01 | 3.35 | .91 | 3.66 | < .001 | .59 |
| Isolation | 1.79 | .83 | 2.83 | .98 | 11.68 | < .001 | 1.87 |
| Physical signs | 3.29 | .88 | 3.51 | .86 | 2.45 | < .05 | .39 |
| Dependence | 2.42 | .96 | 3.11 | .88 | 7.79 | < .001 | 1.25 |
| Family | 3.42 | .80 | 3.15 | .84 | 2.96 | < .01 | .48 |

In order to verify if the young people group was really a relevant one for participants, the mean scores for the four group identification items were calculated. Such a procedure aimed at checking if the experimental manipulation seemed reasonable for the employed sample. The four items, together, had a Cronbach alpha value of .76, considered satisfactory. Their mean was 5.51 (SD = 1.02), significantly higher than 4, the measure's middle point [$t(155) = 18.42$; $p < .001$; $d = 2.95$]. Therefore, it was concluded that the young group membership was an important one for research participants and that its choice for the substitution condition was adequate.

## DISCUSSION

The present study's results indicate two very different representation structures. A first one, in normal conditions, seems to be centered on the understanding that aging is a process that is linked to living more closely to the family and signs of the body. Moreover, it is related to the accumulation of wisdom and to the proximity of death and the passing of time. When participants were asked to report the role that representation elements would play for other typical members of the young people group, a very different pattern emerged. Ideas that did not have high symbolic value scores, such as having to face illness, suffering, being isolated and the decrease in everyday functioning, as well as losing memory and being dependent, became prominent. The connection to death and physical signs became even more important than before. Also, retirement was considered more important on the substitution condition. 'Time' kept a similar score, but the 'wisdom' element was considered less relevant as a definer of aging when participants answered 'on the shoes' of other young people.

Those results could be interpreted in various directions. A first one is related to the lack of clear differentiation between central and peripheral systems, specially on the substitution condition. For the normal condition, elements 'family', 'physical signs', 'wisdom', 'time' and 'death' do seem to be more important than the others due to their higher scores. Similarly, elements 'suffering', 'isolation' and 'dependence' are also part of the peripheral system. Still, perhaps with the exception of 'family', it is difficult to identify a pattern that could distinguish well between central and peripheral elements. On the substitution condition, ten of the twelve elements had symbolic values scores higher than 3, which can be interpreted as fairly important to the representation! That would mean saying that most of the pertinent representation elements are central, which would go against a cognitive economy principle. Most likely this lack of differentiation between elements is a sign that the participants' relationship with the social object is such that the representation is closer to be unstructured. Flament (2002), somewhat inconclusively, called the attention to this possibility both when no elements seem to be central according to the calling-into-question technique, and when too many of them seem to have high refutation scores. In the present study, the second situation is the pattern displayed by participants when answering as other group members. In Flament (2002)'s words, it is as if 'no matter what' was considered central by participants.

A second influence on the calling-into-question results can probably be explained by the item instructions that were employed. They were a simplified version of the instruction text commonly employed to introduce calling-into-question' tasks (Moliner, 1989; Moliner, 1993). The specific text instructions employed on this study relate to aging directly, in a way that can be considered more abstract. This could have led participants to associate elements to the

representation more easily, following the forementioned 'no matter what' principle, and thus reducing the technique's discriminative power. An alternate text that treated getting older as a concrete process in someone's life, as opposed to the direct reference to the more abstract 'aging' notion, could prove more effective.

After a first glance on results, one could perhaps conclude that the social representation on aging is submitted to a masking effect of some sort: when participants respond as other group members, the resulting representation is much more negative one and even the only – and likely to be central – positive element from the normal condition, 'wisdom', decreases in importance. That would suggest that 'wisdom' is not really a central core component, but it is emphasized by participants only due to its social desirability; people might be well evaluated if they say that aging is linked to becoming wiser, because that entails respect for elders, when, in fact, the real schemes and beliefs about aging would be those related to decrease, death and related concepts.

However, we do not think that there is enough evidence to support such a conclusion. The results from the present study are also relevant to discuss the pertinence of the substitution technique, which aims at placing the participant at a generic group member's position in order to detach the answering activity from his self-image, and obtain 'true' evaluations regarding social representation material (Guimelli & Deschamps, 2000; Abric, 2003). But are participants really able to provide valid responses that could be transposable to their groups on the substitution condition? For the social representation on aging and the young people social group, we could identify three types of interference that might suggest that the substitution technique needs to be evaluated in its adequacy.

The first one is related to bias research in social psychology. There is extensive research that identified people's biases when trying to say what others would do or how they would think, including examples of effects such as pluralistic ignorance, when someone does not have the competence to correctly evaluate what another group member thinks (Miller, 1987), or false uniqueness, an 'illusion' according to which the participant believes he thinks or behaves differently from other group members (Perloff & Brickman, 1982). The extreme negativity of the representations attributed by current study's participants to their group members suggests that we are in the presence of biases of this kind.

The second one complements the first one, but from another level of analysis. When we ask someone to respond as a typical young person, probably the social representation of youth or the stereotype of the young person comes into play and in part determines the response. Even if, as we checked, there seems to be a true connection between participants and the young people group, the beliefs and schemes related to the group itself or the life period of youth could explain such a pattern of answering. Abric (2005) already pointed out to this second point when commenting the substitution technique in the context of social representations.

Also, the 'young person' label might have been misinterpreted by participants; they might be answering as 'Brazilian young people in general', which is certainly much wider and different from the beliefs that might be shared by the more specific group of university students. The Brazilian young people category involves cultural and economic disparities, which makes abstraction or projection processes related to it more complex and prone to variation. The

differences of choosing a closer group for the substitution or a more general one still need further investigation, but building the technique upon one or another seems to interfere to a considerable extent.

Those three aspects might us lead to question if the use of the substitution technique is valid for research on the masking effect of social representations. Further investigation is needed, but it seems that employing this technique involves a set of sociopsychological phenomena that makes interpretation of results, that is, the judgment if eventually identified mute zone elements are really a part of participants' shared representations that remain hidden due to normative pressures, very difficult. One might be dealing with elements that are not truly existent in a given socio representational system and are only inferred by the participant due to the interference of biases or the misevaluation of the group of interest. It appears that researchers might need to evaluate carefully the possibilities of bias interference and the chosen group for the substitution tasks before deciding to employ such a technique. Also, the normative decontextualization technique, which involves the manipulation of the experimenter group but does not require that the participant answers as someone else, is likely to suffer less bias interferences (Abric, 2003).

These points and also the found results bring with them the following question: how to know which representation is the 'true' one? Is it a social representation on aging with losses and gains (more specifically in wisdom)? Or would it be the case that the reference to wisdom is part of a masking effect, a 'politically correct' resource to protect participants from normative demands from their environment? Does wisdom play an organizing role on the representation, or does it not? Due to the limitations on the substitution technique, it is still premature to say something conclusively. Suggestions for future research include different approaches to evaluate element centrality, whether through subtler changes in calling-into-question instructions, or by means of an investigation of a relationship of cognemes and social practices. Social representations and practices are intimately connected (Abric, 1994c), and if 'wisdom' do plays an important role on the representation it should constitute the legitimating basis for actions directed to the elderly or one's own aging process. Additionally, mute zone research might benefit from measuring the social desirability associated to elements.

A final point is related to where the social representation is and is not in this situation. Even considering biases that make people say that they think one thing and others think differently, would not the acceptance of rules legitimated by 'others' be enough to maintain an active social norm? If people do act according to those norms and beliefs, even if they refer to other contents when answering to questionnaire or interview tasks, then the prescriptions that rule their behavior would consist of the 'real' social representation, as they are linked to a collectivity, the 'other' that defines social psychology (Moscovici, 1984). This might happen specially with 'sensitive' social objects (Abric, 2005), that are more vulnerable to a masking effect due to normative pressures. Aging seems to be one of those objects. Even so, those are issues that demand further investigation and remain in the realm of pertinent hypotheses.

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## AUTHOR NOTE

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