The Relationship between Junior and Senior Nurses. Analysis of a Case of Intergenerational Discrimination Using the RepMut Tool

Las relaciones entre enfermeras junior y senior. Análisis de un caso de discriminación intergeneracional utilizando la herramienta RepMut

ABSTRACT
This research aims to show that the implementation of intergenerational salience at a social level can affect the work context, particularly in hospitals. Participants were 50 voluntary nurses (25 juniors, 25 seniors) working in French hospitals. RepMut Methodology, based on the theories of social categorization and self-categorization, highlights the mutual representations of group relations and allows measurement of the biases of perception and evaluation. The results support the idea that junior/senior self-categorization plays an important role in structuring work relations. Both groups express in-group homogeneity, but also contrast and values consistent with their social group membership. We discuss the benefit of differentiating the levels of analysis in order to acquire an understanding of diversity and its associated effects.

Keywords: ageism, identity strategies, RepMut, social categorization.

RESUMEN
Esta investigación considera el impacto social de las diferencias intergeneracionales en contexto laboral hospitalario. Participaron voluntariamente 50 enfermeros(as) de hospitales públicos franceses (25 junior, 25 seniors) working in French hospitals. RepMut Methodology, basada en las teorías de la categorización social y de la autocategorización, permite evidenciar las representaciones mutuas de las relaciones intergrupales y una fácil medición de sesgos perceptivos y evaluativos. Los resultados muestran que la autocategorización Junior/Senior juega un papel importante en la
Social context

In a context where aging societies in Western Europe are confronting the world of work to new challenges (Fagnani & Letablier, 2011; Meier, 2008), maintaining seniors in the labour market has become a new and major social issue in France. While the proportion of older people in France keeps growing, the employment rate of older workers – those aged between 55 and 64, the “seniors” – is still well under the European average: 47% in 2014 for France in comparison to 51.9% for the European Union (Statistical Office of the European Union [Eurostat], 2015a). However, a clear progression is to be noted: in 2004, 37.8% of the seniors of active age were employed. This progression can be explained by the increase of the average retirement age and the abolition of measures for attractive early retirement packages (Juban, 2013).

Now, society needs more than ever for its seniors to stay active as long as possible: the expenses of healthcare and pensions as well as the high unemployment rate of juniors (24.2% in 2014) and seniors (7.5% in 2014, Eurostat, 2015b) cost too much for France. The system faces new challenges, combining an economic perspective and a social and societal point of view: a fear of a shortage of qualified and experienced workers, of a loss of knowledge acquired from experience, and realising the great importance of maintaining the social link between generations and supporting the social balance (Cahuc, 2005; Guillemard, 2007; Juban, 2013; Loisel, 2002; Meier, 2008).

Unlike in Germany, where – because of a decrease of the junior population and the fear of a lack of skilled manpower – encouraging companies to maintain seniors at work and encouraging seniors to stay at work is a major goal for employment professionals and policy makers (Steinberg & Jégu, 2015), French juniors face difficulties of access to initial employment and French seniors, difficulties to stay employed. As a result, on the labour market, the two generations are placed in a relation of competition by the cultural, economic, and social context (Jégu, Lacassagne, & Castel, 2015, 2015). This competitive situation could lead to discrimination. From this perspective, it seems then necessary to study seniors and juniors’ relationship and their mutual social representation of it, to restore an intergenerational dialogue and, ultimately, the intergenerational balance.

Intergroup Process

In terms of social psychology, “Social identity theory” (Tajfel & Turner, 1979) and “Self-Categorization Theory” (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) attempted to explain the processes of discrimination.

According to these theories, people consider belonging to their social group as an important part of their own identity. When they adopt a social identity, they try to behave in ways which give a positive and distinct image of their group. When they compare themselves with other groups, they are likely to accentuate the difference between their group and the other group and they are likely to accentuate the similarity of the members of each group. In other words, people see the members of the group to which they belong (the in-group) as being different from the out-group, and members of
the same group as being more similar than they are. They also have a tendency to evaluate their own group or its members more favourably than a group to which they do not belong or its members. The tendency to serve the group takes the form of favouring the in-group, not-favouring, or disfavouring the out-group. In general, it would seem that people reinforce their self-esteem in this way.

These phenomena, which are based on social identity, do not appear in other identity-related areas. In fact, social identity is merely a level of identity on a scale enabling a distinction between collective identity in relation to a particular society (super-ordinate level), and personal identity in relation to the uniqueness of each individual (subordinate level). In terms of levels of identity, therefore, there are ways of attenuating or even removing the effects relating to the mobilization of a social identity.

For example, it is possible to help the members of groups in conflict by making them change their identity level, encouraging a super-ordinate level (Sherif, 1954), or encouraging each party to share a common fate. It is also possible to help them to recognize sub-groups in the opposing group (Brauer & Er-rafiy, 2011) to encourage individuation by progressing to the subordinate level. Finally, by remaining at the intermediate level, it is possible to highlight several categories at the same time (cross-categorization) to increase the number of salient dimensions of comparisons (Crisp & Hewstone, 2007; for a detailed review, Deschamps & Doise, 1979).

**Current Research**

Considering the repartition of the different age groups and the economic crisis, the French labour market is characterised by great difficulties to absorb the population from the two extremes of the age distribution, those old enough to start working (juniors from 18 through 30 years old) and those still allowed to be active (seniors from 55 up to 67 years old). As seen previously, this situation causes an increase of age-based prejudice and potential intergenerational conflict (North & Fiske, 2015). It puts juniors and seniors in a complex relationship of confrontation. The demographic problem actually increases significance of age in work relations. Now, once a social identity is apparent, group members try to enhance the importance of their own group. Consequently, we will find discrimination between generational groups and this discrimination will appear through the bias of perception (difference and similarity) and the bias of evaluation.

However, in the context of French public hospitals, intergenerational conflicts are not prevalent, as nurses share a strong social identity that can unite members regardless of their age (super-ordinate goal).

This identity is reinforced by their shared concerns about health and issues (common fate). Age is evenly spread across different sub-categories of nurses (cross-categorization). For example, in surgery and birth services, the age distribution of nurses is comparable.

Finally, intergenerational relationships do not seem to be in competition (shortage of graduates, job security, age/experience-related wages).

Consequently, this research aims to show that the implementation of intergenerational salience at social level can affect many different contexts, particularly including places that are protected or sheltered from threats, such as hospitals.

**Method**

**Participants and design**

Participants were voluntary nurses (N=50, 46 females and 4 males) recruited in public hospitals in a French department. The junior sample (N=25, 23 females, 2 males) had a mean age of 26.68 years (SD = 2.29) and the senior sample (N= 25, 23 females, 2 males) had a mean age of 53.38 years (SD= 2.72). The design was a 2 (Sources: nurses less than 30 years old / nurses more than 50 years old) between-group factor X 2 (Targets: Junior/Senior) between subjects factor.
Material and Procedure

We used a specific methodology, recently developed by the SPMS Laboratory (University of Burgundy - Franche-Comté), to highlight the views of interacting groups and to reveal mutual social representations. This methodology, called Mutual Representations (RepMut)\(^1\), is based on the theory of social categorization and self-categorization, and allows an easy measurement of the biases of perception and evaluation. The applications of this tool can be found in different fields (health (Peteuil, 2015), education (Harabi, Mangin, & Castel, 2015; Mangin, 2015), justice (Joly, 2013 enterprise (Jégu et al., 2015), interethnic relations (Velandia-Coustol, Castel, & Lacassagne, 2015), and sports (Harabi, Mangin, Perchot, Castel, & Lacassagne, 2015; Perchot, Mangin, Lacassagne, & Castel, 2013; Perchot, 2013).

The RepMut methodology is an intergroup relations analysis tool, in the form of a questionnaire in its data collection phase. It uses the various advances on the social categorization model, incorporating a part of the methodology of social representations (Abric, 1984; Flament, 2001; Le Bouedec, 1984; Moscovici, 1984) and the notion of co-construction produced from the social psychology of language (Ghiglione, 1988; Ghiglione & Blanchet, 1991).

A research assistant presented a RepMut questionnaire to each participant according to their appearance (junior or senior). They were asked to help with a class project at the university that sought to determine “in the context of an increasing retirement age, the representation of nurses’ relationship in the medical field”. Anonymity was guaranteed.

The RepMut questionnaire covers different representations: in-group representation (X), out-group representation (Y), meta-representation (what subjects think that members of the other group think about members of their group (X)), stereo-representation (what subject thinks that members of their group think about members of the other group (Y)).

In the current research, to test our hypothesis, only the in-group representation and the out-group representation were studied.

Consenting participants were directly interviewed in their category (junior/senior).

1. They were asked to produce 5 adjectives describing their opposite category and their own category. This indicator is named “representation”.
2. They were then asked to say to what degree these adjectives were positive, neutral or negative (-100 to +100). This is called the “valence” indicator.
3. In addition, to rate the adjective valence, participants were asked to rate the strength (-100 to +100) of status. The question was “To what degree does this adjective give access to a high social position (0 to 100)?” This is called the “strength of status” indicator.
4. They were then asked to rate the % of members of their own group and of the other group defined by each adjective. This is called the “In-/out-group representativity” indicator.
5. They were also asked to give the proportion of nurses defined by each quality. This is called the "supra-representativity" indicator.
6. Finally, they were asked to say to what extent each adjective defined them in person. This is called the “self-representativity” indicator.

In this study, to test our hypothesis, only the questions 1, 2, 4 and 5 are analysed. The plan for analysis is as follows:
TABLE 1
Table type concerning Rep Mut Methodology

<table>
<thead>
<tr>
<th>Source: Nurses</th>
<th>Mean</th>
<th>Socio-psychological mechanism</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;30 years old</td>
<td>2+3</td>
<td>Out-group categorization effect</td>
</tr>
<tr>
<td>&gt;50 years old</td>
<td>1+2</td>
<td>Junior effect</td>
</tr>
<tr>
<td>Senior</td>
<td>3+4</td>
<td>Senior effect</td>
</tr>
<tr>
<td>Mean</td>
<td>1+3</td>
<td>In-group categorization effect</td>
</tr>
</tbody>
</table>

Source: own work

Boxes 1, 2, 3, 4 correspond to the scores (assimilation, contrast, appreciation) of a source group for a target group. The score in a box corresponds to the average of the marks given by subjects in the source group to the target group, the mark of a subject itself corresponding to the average of the assessments of the 5 adjectives that they provided for this target.

The marginal averages in columns (1+3) and (2+4) correspond to source group norms (nurses under the age of thirty, nurses over the age of fifty). The difference between these averages corresponds to any possible difference in normative terms.

The marginal averages in rows (1+2) and (3+4) correspond to a priori stances concerning the targets (junior/senior). The difference between these averages corresponds to any possible cultural prejudice.

The marginal averages on the diagonal (2+3) and (1+4) correspond to category assessments (in-group/out-group). The difference between these averages corresponds to any possible category-based discrimination.

From a statistical point of view, adopting an Sn <Source2>*Target2 plan, the major effect of the Source Variable (under thirty/over thirty) corresponds to the difference between norms, the major effect of the Target Variable (junior/senior) corresponds to prejudice, and the interaction corresponds to the major effect of the Categorization Variable, being category-based discrimination.

Dependent measure

Measurement of similarity: The assimilation score was the average percentage given by each member of one group to judge the degree of similarity between members of the other group, or between members of their own group. The higher the percentage, the stronger the assimilation: members of the group under consideration are perceived as all similar.

Measurement of contrast: The contrast was the difference between the representativity score for the group under consideration (the group for whom the adjective were given) and the representativity score for the other group.

Measurement of appreciation: The appreciation score was the mean of adjective values (-100 to +100) weighted by the % (0 to 100) of group members defined by these adjectives.

Results

Measurement of similarity

Results of similarity

A mixed-measure ANOVA with target group (Junior/Senior) as a within-subject factor and age of the source (<30 years old/ >50 years old) as a between-subject factor revealed an interaction (F (1.46) = 8.55, p <.005). This interaction corresponds to the categorization bias.

There is no difference in norms according to source (under thirty/over fifty) or a priori differences between the targets. On the other hand, there is a categorization effect, the in-group being considered to be more homogenous than the out-group.
**Measurement of contrast**

**TABLE 3**

Results of contrast

<table>
<thead>
<tr>
<th>Source: Nurses</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 30 years old</td>
<td>30.10</td>
</tr>
<tr>
<td>&gt; 50 years old</td>
<td>21.24</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Target</th>
<th>Source: Nurses</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Junior</td>
<td>30.07* *(17.93)</td>
<td>24.54</td>
</tr>
<tr>
<td>Senior</td>
<td>30.13* *(17.14)</td>
<td>24.56</td>
</tr>
</tbody>
</table>

*:*p<0.0001

Source: own work

Result 1: an ANOVA measure with Representativity (In-group representativity/Out-group representativity) as within-subject factor revealed a significant effect for each group. In all cases, the subjects believe that the adjectives that they have chosen to describe a group are more representative of this group than of the other.

A mixed-measure ANOVA with target group (Junior/Senior) as a within-subject factor and age of the source as a between-subject factor revealed no interaction, no effect of target but a tendential effect of the age corresponding to a norm effect (F (1.46) = 2.865, p < 0.09). This effect comes mainly from the difference between the under-thirties and the over-fifties on the junior target group (F (1.48) = 3.89, p < 0.05). Senior nurses discriminate less against the junior target group than the young ones. The analysis of statistical contrasts also shows that there is no normative effect on the senior target and that, furthermore, in nurses over the age of 50, there is a tendential effect between the juniors and seniors. In tendential terms, members of this age group rate the members of the junior target group as being less contrasting than the senior target group.

**Measurement of appreciation**

**TABLE 4**

Results of Appreciation

<table>
<thead>
<tr>
<th>Source: Nurses</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 30 years old</td>
<td>39.60</td>
</tr>
<tr>
<td>&gt; 50 years old</td>
<td>31.18</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Target</th>
<th>Source: Nurses</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Junior</td>
<td>47.31 *(32.58)</td>
<td>25.76</td>
</tr>
<tr>
<td>Senior</td>
<td>31.90 *(28.20)</td>
<td>36.60</td>
</tr>
</tbody>
</table>

*:*p<0.0001

Source: own work

A mixed-measures ANOVA with Target group (In–group/Out-group) as a within-subject factor and Age of the source as a between-subject factor revealed no effect of the Source, no effect of the target, but a significant effect of interaction corresponding to categorization bias (F (1.46) = 10.64, p = .002).

There is no source or target effect. However, there is a categorization effect in which subjects, regardless of their category, prefer their group to the other group. This result is similar to the results for similarity. Shared representativity across the two indicators is at risk of reinforcing the effect, and we have verified that results were maintained on consideration of raw data. The pattern of results is indeed similar. There is no source effect (F (1,46) = 0.40, NS), no target effect (F (1,46) = 0.040, NS), and an interaction effect (F (1,46) = 5.99, p <.02).

The analysis of statistical contrasts shows that nurses under thirty exhibit a difference in appreciation according to target in favour of the juniors (F (1,48) = 7.33, p < .009). Likewise, the analysis reveals a difference in handling by the two sources. The junior target group is rated higher by the junior source group than by the senior source group (F (1.48) = 6.18, p < 0.016).

**Discussion**

Overall, these results provide additional evidence that junior and senior nurses activate the social categorization process through the biases of perception and evaluation.
Firstly, there is an assimilation effect, junior and senior nurses perceived the members of their own group as more similar than the members of the other group.

This initial result shows that, in terms of assimilation, the perception bias does not depend on the age of the source or the age of the target but on the categorization (in-group/out-group). This categorization effect is marked by a more homogenous view of one’s own group than of the other group. In the literature, the effect most commonly recorded concerns the homogeneity of the out-group (Lorenzi-cioldi, 1993, 1998). However, it would seem that the effect is modulated by the respective group status. In fact, a number of studies relating to low-status populations recorded cases where the homogeneity of the in-group is greater than (Brown & Smith, 1989; Simon, 1992, for example) or equal to that of the in-group (see for a review, Boldry, Gaertner, & Quinn, 2007). Both groups studied occupy highly comparable status positions in objective terms, which means in the hospital environment, a subordinate position in the hierarchy. Therefore, it is probable that the marking of categorization by greater homogeneity for the in-group than for the out-group is the most available strategy, given their usual status in the hospital.

Secondly, an observation of the results of the contrasts shows that they are all positive and widely significant. This means that nurses believe that the terms that they have used to describe a group are clearly more representative of this group than the other. In other words, they have a clear view of the specific characteristics of each group.

This inter-group distinction is not based on the characteristics of the target group in terms of either age or categorization. However, such a sense of distinction has a tendency to be greater in junior nurses than in senior ones. The under-30s see juniors and seniors as groups with boundaries, whereas the over-50s see these boundaries as being much more fluid, especially with regard to the juniors. It is as if the senior nurses applied an identity-based strategy (Van Knippenberg, 1989), blurring the boundary separating them from the junior nurses.

Finally, results for appreciation show that there is no source age effect (difference in norms) or target age effect (prejudice). On the contrary, as with similarity, there is a categorization effect. When we fine-tune the data, it would appear that the juniors over-rate their own group (auto-favouritism), whereas the seniors do not.

In conclusion, the juniors over-rate themselves, assimilate each other and identify inter-group contrast, which could suggest the emergence of an elitist strategy (Castel, Lacassagne, & Viry, 2006). On the other hand, the seniors are aware that they belong to a group that sets them apart from the juniors; however, the contrast they see is not so great, and they do not seem to want to be marginalized, even if they do not go as far as showing allo-disfavourism, as do groups that are objectively disfavoured (Castel et al., 2006).

General Discussion

Current research has tested the idea that self-categorization in terms of junior/senior plays an important role in structuring work relations. The research provided clear support for this idea. The answers to the questionnaire showed that junior and senior nurses are motivated to express an in-group homogeneity effect, to express contrast and to express values consistent with their social group membership.

Where generation-related identities are salient, subjects react as members of these categories and try to find validating identities within these groups. In the study presented, the juniors, active in their role as juniors in relation to their senior colleagues, mark themselves out more in their own favour, whereas the nurses over the age of 50 - perhaps because they see themselves as being more representative of nurses as a whole - avoid their own marginalization by playing down differences with the other group, but still without giving them a very favourable assessment.
One limitation of our research is that only a small number of people took part in this research, and senior participants were not really “old people”. Nevertheless, this minor incursion at a meso-social level, where groups begin to interact with each other, shows the incidence of social categories in an environment that remains sheltered in terms of differences between generations.

Demographic issues are requiring European societies to reconsider age in terms of economic development in the world of employment. Incidence at meso-social level has every chance of being negative, but this is not irreversible. In other words, if the automatic effects of social categorization are deleterious, there are still ways around it.

An important challenge for professionals concerned by seniors and their work is to give them consideration. Given that the reasons behind discrimination appear to be problems with identity recognition, as suggested by Barreto and Ellemers (2002), it will be possible to lay the foundations of cooperative behaviour between junior and senior workers in order to acknowledge meaningful identities.

Conclusion

The study presented underlines the benefit of differentiating between different levels of analysis in order to acquire an understanding of diversity and its associated effects. Facts observed at macro-social level are not irreversible, in that they result from a meso-social dynamic. In this respect, the appropriation of differences produces spontaneous effects. Interaction between two complementary groups almost automatically results in assimilation, contrast, and discriminating judgements. In a given situation, an analysis of mutual relationships makes it possible to identify particular risks. In our study, the juniors appear to assume the role of an elitist minority, and the seniors that of a dominant majority. If these roles were to become entrenched over time, it is likely that tensions would arise.

However, the implementation of regulatory procedures tailored to the type of relationship would make developing innovative working practices possible. Skills differentiation, probably related to generation-based rather than age-based characteristics, should encourage a certain creativity in terms of interpersonal relationships.

Acknowledgement

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Notes

1 Représentations Mutuelles (in French). RepMut is a tool that has been developed based on the design of social partitions by a working group (mainly Représentations Mutuelles (in French). RepMut is a tool that has been developed based on the design of social partitions (Castel & Lacassagne, 2011, 2015) by a working group (mainly Castel, P., Lacassagne, MF, Mangin, E., Peteuil, A., Velandia-Coustol, C.) from the SPMS laboratory.

2 The scores obtained from answers to question 3 make it possible to check that subjective statuses are equivalent.

* Research paper.