

# Relative Deprivation and Social Identity in Times of Dramatic Social Change: The Case of Nurses<sup>1</sup>

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In the present study, an integration of relative deprivation theory and social identity theory is proposed to account for people's reactions to dramatic changes affecting their daily lives. Data collected among nurses ( $n = 108$ ) indicate that feelings of relative deprivation are influenced by different perceptions of organizational change. Path analysis shows that feelings of social relative deprivation derive from negative changes that are numerous, and that temporal relative deprivation is experienced as a result of negative changes that are rapid. In terms of the link between social identity and relative deprivation, 2 contrasting approaches were tested. Analyses support the view that in-group identification acts as a precursor, rather than as a consequence, of relative deprivation.

Social change is a constant. Some changes are more dramatic than others in that they profoundly reshape the entire structure of a society or an organization. The overthrow of a government, the introduction of radical new laws, and the globalization of the economy are examples of social change that may have a profound impact on organizations and their employees. Moreover, technological advances have revolutionized the working environment for virtually all organizations.

*Social change*, then, is defined as a permanent and rapid transformation of a given social organization and its internal dynamics (Parsons, 1964; Rocher, 1992; Rogers, 2003). Transformations of this magnitude and pace not only modify the history of an organization, they also threaten its equilibrium. Social change has become a reality for most modern societies. Changes are not only numerous, they are also occurring at a rapid pace (e.g., Chirot & Merton, 1986; Nolan & Lenski, 1998; Ponsioen, 1969; Sztompka, 1998; Zuck, 1997). Indeed, the ongoing "technological revolution" has had a profound impact on organizations and workers

<sup>1</sup>This research was supported by the Social Sciences and Humanities Research Council of Canada (SSHRC). The authors thank Donald M. Taylor and two anonymous reviewers for their thoughtful comments in improving the article.

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throughout the world (Bernardino, 1996; Karoly & Panis, 2004; Marjoribanks, 2000).

The general purpose of the present research is to examine the psychological outcomes associated with extensive and rapid social change. Specifically, we focus on a particular group that is affected dramatically by social change in its work environment: nurses. In Canada, the work situation for nurses has deteriorated steadily in the last decade and continues to do so (Canadian Institute for Health Information, 2002; Santé Canada, 2004). The quality of work for nurses in the province of Québec is no exception. Québec's nursing profession was profoundly affected by the restructuring of the public health system, the introduction of new technologies, the redesign of treatment protocols, and the endemic shortages of personnel following the forced retirement of thousands of experienced nurses (Langlois, 1999). The workload for nurses has increased to the point that they barely have enough time to attend to their patients' basic medical needs (Canadian Institute for Health Information, 2002; Santé Canada, 2004).

The point of departure for our investigation involves two leading theories that have been associated with social change: relative deprivation theory (Crosby, 1976) and social identity theory (Tajfel, 1978; Tajfel & Turner, 1979, 1986). Both theories consider change to be a pivotal factor for individuals' reactions to their collective situation.

Relative deprivation theory is important when radical social change occurs. There is a fundamental need for individuals to assess the situation of their group. This need is particularly powerful when the individual's entire environment has been transformed, and when no objective points of comparison are available. The concept of *collective relative deprivation* is defined as a feeling of discontent, resulting from unfavorable comparisons of one's group situation (Crosby, 1976; Runciman, 1966, 1968; Walker & Pettigrew, 1984).

There are two types of collective relative deprivation that are relevant to the context of the present research. One is based on social comparisons, and the other is based on temporal comparisons. *Social collective relative deprivation* occurs when an individual feels disadvantaged after comparing his or her group's conditions with those of another group. Although most research on relative deprivation has targeted social comparisons, temporal comparisons are also considered an important source of threat (Crosby, 1976; Folger, 1977, 1986; Gurr, 1970; Pettigrew, 1967; Runciman, 1966; Tougas & Beaton, 2002).

*Temporal collective relative deprivation* involves in-group comparisons across time. The present becomes the baseline for comparisons with the past or the expected future situation of the in-group. According to analysts, temporal comparisons are especially important in periods of social change

(Albert, 1977; Brown & Middendorf, 1996; Hinkle & Brown, 1990; Mummen-dey, Mielke, Wenzel, & Kanning, 1992), or in times of economic difficulties (Krahn & Harrison, 1992). For instance, temporal comparisons allow people to re-evaluate their group position in a drastically changed social environment. As the transformations are so unique to the group, temporal comparisons can become a more relevant target than other groups of people (de la Sablonnière, Taylor, Perozzo, & Sadykova, *in press*; de la Sablonnière, Tougas, & Lortie-Lussier, *in press*). Indeed, temporal comparisons seem to be the most relevant for groups undergoing rapid social change (de la Sablonnière, Tougas et al., *in press*).

The concept of collective relative deprivation has been used in previous research to account for feelings of threat triggered by social change (de la Sablonnière, Tougas et al., *in press*). Specifically, de la Sablonnière, Tougas, et al. applied previous research on majority group reactions to the increased number of visible minorities in society (Tougas, de la Sablonnière, Lagacé, & Kocum, 2003), and women in the workplace (Beaton, Tougas, & Joly, 1996) to the context of social change in Russia and Mongolia. The results indicated that the number of negative social changes and the pace of negative social change were each associated with different feelings of collective relative deprivation (de la Sablonnière, Tougas et al., *in press*). First, the results of studies conducted in Russia and Mongolia showed that feelings of social collective relative deprivation became stronger as the number of perceived negative social changes increased. For example, the more Mongolians perceived social changes to be numerous and negative, the more they felt dissatisfied when they compared the situation of their own group to citizens of other countries. These findings are consistent with Festinger's (1954) social comparison theory, postulating that people revert to social comparisons to establish the position of one's group in the absence of objective standards.

Second, the studies with Russians and Mongolians confirmed an association between the pace of perceived negative social change and feelings of temporal collective relative deprivation. For example, the more Mongolians perceived social change to be rapid and negative, the more they felt dissatisfied when they compared the present situation of their own group at different points in time. These results suggest that a rapid pace of change is very destabilizing for individuals. In such a situation, people revert to temporal comparisons in lieu of social ones. This is congruent with temporal comparison theory (Albert, 1977), asserting that individuals favor temporal over social comparisons in situations involving change and adjustments.

The first goal of the present study is to determine whether findings pertaining to societal change can be replicated in the context of organizational social change. The focus is on the reactions of Québec nurses to the imposed transformation of their work environment. Achieving this goal would allow

us to conclude that previous findings associating the number of negative social changes with social collective relative deprivation and rapid negative social change with temporal collective relative deprivation can be both replicated and, more importantly, generalized to other contexts (de la Sablonnière, Tougas et al., in press).

In addition to relative deprivation, social identity theory has also been linked to social change (Ashmore, Deaux, & McLaughlin-Volpe, 2004; Breakwell, 1986; Deaux, 1993, 1996; Deaux & Stewart, 2001; Ethier & Deaux, 1994; Timotijevic & Breakwell, 2000; see also Breakwell & Lyons, 1996). According to Taylor (1997, 2002), there are two main components to social identity; namely in-group identification and collective esteem. Acknowledging being part of one's group refers to *in-group identification*, which is the cognitive component of social identity. *Collective esteem* refers to the evaluation one makes of his or her group (see also Ashmore et al., 2004; Tajfel, 1981).

Social identity is associated with social change via its predicted connection with collective relative deprivation. Research has suggested two theoretical approaches regarding the link between social identity and collective relative deprivation. The first derives from research by Branscombe and her colleagues (Branscombe, Schmitt, & Harvey, 1999; Garstka, Schmitt, Branscombe, & Hummert, 2004; Redersdorff, Martinot, & Branscombe, 2004), who found that in-group identification is influenced by group members' willingness to make attributions to prejudice. According to this approach, in-group identification is strengthened by undue group disparities.

The second theoretical approach refers to the proposition that in-group identification acts as a predictor of collective relative deprivation (Abrams, 1990; Tajfel, 1978; Tougas & Beaton, 2002; Tropp & Wright, 1999). This hypothesis is based on Tajfel's (1978) view that strong in-group identification is necessary in order to recognize group disparities. A recent study confirmed the link between in-group identification and relative deprivation at the personal level (Tougas, Lagacé, de la Sablonnière, & Kocum, 2004). However, this hypothesis has not been tested at the collective level.

Since group disparities are part and parcel of collective relative deprivation, an important question arises: Is in-group identification a predictor or a consequence of collective relative deprivation? This question is particularly relevant since research has shown that collective relative deprivation includes an affective component considered essential in the triggering of attitudinal and behavioral reactions to group inequalities (Guimond & Dubé-Simard, 1983; Martin & Murray, 1983; Walker & Pettigrew, 1984). Thus far, neither causal direction has been tested using collective relative deprivation.

The second goal of the present study is, therefore, to test these theoretical approaches regarding the contrasting causal link between in-group

identification and collective relative deprivation. Specifically, two different models of prediction are tested to determine whether in-group identification defuses the effects of perceived collective disadvantage, or stimulates feelings of collective relative deprivation.

Collective esteem, which is the second component of social identity, is also related to social change through its link to collective relative deprivation. Following Crosby's (1976) proposition that people with high feelings of personal relative deprivation will suffer lower well-being (i.e., low self-esteem or stress symptoms), Walker (1999) proposed that social collective relative deprivation is negatively related to collective esteem. This hypothesis was confirmed among a sample of Russians (de la Sablonnière, Tougas et al., in press). Russians who expressed higher levels of social and temporal collective relative deprivation reported lower levels of collective esteem.

However, these results were not replicated among a sample of Mongolians. Whereas temporal collective relative deprivation was negatively related to collective esteem, social collective relative deprivation was positively related to collective esteem. These findings suggest that the status of the group modulates reactions to invidious comparisons (de la Sablonnière, Tougas et al., in press).

Contrary to Russians, Mongolians have gained group status worldwide because of social reforms following the dismantling of the former Soviet Union. It is possible that the actual status of Mongolia allowed participants to be proud of their country even if, to their dissatisfaction, their job security, health, and justice systems do not compare favorably with other developed countries: Being well-perceived worldwide in such adverse conditions boosted Mongolians' collective esteem. In other words, reporting being poorer than others (i.e., social comparisons) while at the same time feeling well-perceived, made Mongolians proud. However, if expectations for the future were bleak (temporal comparisons), their collective esteem suffered.

The third goal of the present study is to evaluate the link between both types of collective relative deprivation (social and temporal) and collective esteem. If, indeed, the status of the in-group modulates reactions to invidious social comparisons, it is expected that the reactions of nurses will match those of Mongolians. Like Mongolians, nurses in Québec are perceived favorably in society (Cohen, 2000; Regulatory Notes, 1997).

### Overview of the Present Study

The present study is designed to evaluate the relation between social change, collective relative deprivation, and social identity. To do so, two models based on two theoretical approaches are tested (see Figure 1). As the

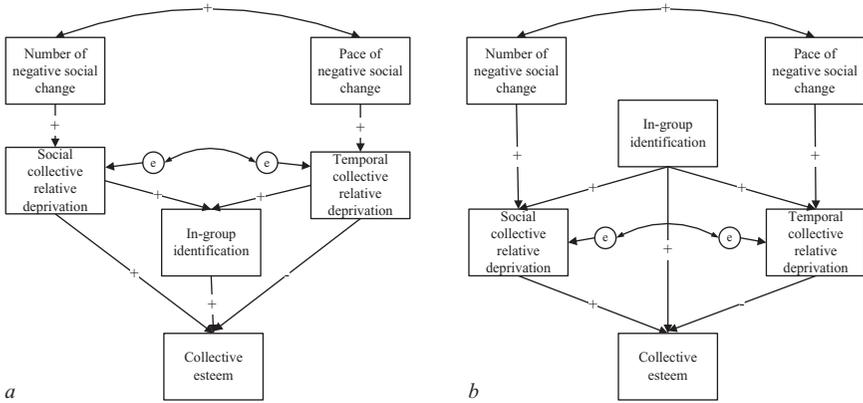


Figure 1. Two theoretical approaches relating relative deprivation theory and social identity theory.

models differ solely in terms of the relation between in-group identification and collective relative deprivation, they both include paths derived from previous studies (de la Sablonnière, Tougas et al., in press) linking social change, two forms of collective relative deprivation (social and temporal), and collective esteem. Indeed, both models include a positive path from numerous negative social changes to social collective relative deprivation and a positive path from rapid negative social change to temporal collective relative deprivation.

Moreover, both models posit that social collective relative deprivation is positively related to collective esteem (de la Sablonnière, Tougas et al., in press) and that temporal collective relative deprivation is negatively related to collective esteem (de la Sablonnière, Taylor et al., in press; de la Sablonnière, Tougas et al., in press). Based on previous research (Branscombe et al., 1999), we expect a positive link between in-group identification and collective esteem. In addition, we expect two positive correlations among variables: one between both types of collective relative deprivation, and the other one between the two types of social change.

However, the first model (Figure 1a), which is inspired by the work of Branscombe et al. (1999), includes positive paths from both types of collective relative deprivation to in-group identification. This model thus posits that in-group identification acts as a protector of collective esteem when feelings of collective relative deprivation are experienced. The second model (Figure 1b) is based on research predicting that in-group identification is necessary to experience feelings of relative deprivation. A path from in-group

identification to both types of collective relative deprivation is thus included (Abrams, 1990; Tajfel, 1978; Tougas & Beaton, 2002; Tropp & Wright, 1999).

## Method

### *Participants*

In collaboration with the authorities of a regional hospital in Québec, we mailed a questionnaire (in French) to 365 employed nurses, along with a cover letter explaining the general purpose of the study and a return envelope addressed to the University of Ottawa. A total of 108 nurses (101 female, 3 male, 4 did not specify gender) returned the questionnaire, for a 29.9% response rate. The low reply rate is explained by the fact that nurses are often asked to do double shifts, leaving them little personal time. The group was composed of 94% women and 6% men. Participants' mean age was 35.4 years ( $SD = 10.4$ ; range = 21–58). On average, respondents had worked at the hospital for 8.1 years.

### *Questionnaire*

A pilot study was conducted with 18 nurses who were employed in regional hospitals in order to list the changes implemented in the last 2 years and to identify the main causes of frustration among nurses in Québec. A complete version of the questionnaire was submitted to hospital authorities, and a revised version incorporating the authorities' suggestions was produced. Unless otherwise specified, answers were recorded on a 7-point Likert-type scale ranging from 1 (*not at all*) to 7 (*absolutely*). For each scale, a global score was computed by adding and averaging responses to every item.

*Valence of changes.* Participants were asked to evaluate the valence of changes in the following 10 areas: (a) number of hours worked; (b) number of nurses; (c) number of patients demanding care; (d) technological innovations; (e) work requirements; (f) work atmosphere; (g) layout of work stations; (h) composition of work teams; (i) stability of work teams; and (j) work protocols and procedures. Participants were asked to indicate the nature of each change on a 7-point scale ranging from 1 (*extremely positive*) to 7 (*extremely negative*). Cronbach's alpha for the scale was .75.

*Number of changes.* Participants were asked to rate the extent of the changes in the 10 areas described previously. The items were rated on a 7-point scale ranging from 1 (*nothing changed*) to 7 (*everything changed*). Internal consistency of the scale was .72.

To create the variable labeled *number of negative social change*, each participant's global score on number of changes was multiplied by the valence of changes global score. This procedure was previously validated (de la Sablonnière, Tougas et al., in press) by comparing the predictive links between this multiplicative score, the score of number of changes, and the score of valence of changes on social collective relative deprivation. It was only when the interaction between the valence and the number of changes was taken into consideration that the association with social collective relative deprivation became significant.

*Pace of changes.* The pace of changes covered the 10 areas presented previously. Items were rated on a 7-point scale ranging from 1 (*extremely slow*) to 7 (*extremely rapid*). Cronbach's alpha was .75.

To create the variable labeled *pace of negative social change*, the pace of changes global score was multiplied by the valence of changes global score. As in the case of number of changes, this multiplicative procedure was previously shown to be more adequate than separate scores (de la Sablonnière, Tougas et al., in press). It was only when the interaction between the valence and the pace of changes was taken into consideration that the association with temporal collective relative deprivation became significant.

*Social collective relative deprivation.* The format for the evaluation of the cognitive component of social collective relative deprivation is based on previous studies (Tougas & Beaton, 1993; Tougas et al., 2003). Participants were asked to compare their collective conditions to two groups: nurses outside Québec ( $M = 4.87$ ) and other professionals in Québec ( $M = 5.20$ ; e.g., teachers). These two groups were selected on the basis of a pilot study conducted with 18 nurses. Nurses identified these two groups as the most relevant targets of social comparison. As the responses of the two target groups were highly correlated in the present study ( $r = .58$ ,  $p < .001$ ), responses were pooled into one variable. In comparison with each of these two groups, they had to indicate whether Québec nurses (a) have more work to do; (b) have to take more classes and further training; (c) have lower salaries and fewer benefits; (d) have more instability and insecurity regarding work organization and care; (e) have less recognition from management; (f) have a more challenging work environment; and (g) have less time to care for patients and their families.

The affective component of social collective relative deprivation was measured by asking participants whether they were dissatisfied with each perceived discrepancy. A composite score was created by averaging responses to all items, including cognitive and affective components, of relative deprivation. Internal consistency for all items was .90.

*Temporal collective relative deprivation.* Participants were asked to compare their current conditions to their past (i.e., 2 years ago;  $M = 5.07$ ) and expected future circumstances ( $M = 5.38$ ) according to the seven domains described previously (see section labeled *Social collective relative deprivation*). For example, we asked participants to answer the following questions: "Compared to two years ago, Québec nurses *have more work to do*," or "In the long term, Québec nurses will *have more work to do*."

Past studies have shown the relevance of considering both past (e.g., Zagefka & Brown, 2005) and future temporal points of comparison (e.g., Dambrun, Taylor, McDonald, Crush, & Méot, 2006). As the responses to the two types of comparison were highly correlated in the present study ( $r = .71$ ,  $p < .001$ ), responses were pooled into one variable. Answers to all questions, including both the cognitive and affective component, as well as past and future temporal relative deprivation were pooled to form one composite score ( $\alpha = .94$ ).

*In-group identification.* The three items referring to in-group identification were based on the work of Ellemers, Kortekaas, and Ouwerkerk (1999). The questions are "I identify with nurses," "I have a lot in common with nurses," and "Being a nurse is an important reflection of who I am." Cronbach's alpha for this scale was .74.

*Collective esteem.* The items for collective esteem were derived from previous work (Ellemers et al., 1999; Jackson, 2002; Luhtanen & Crocker, 1992). The eight items pertaining to the evaluative and affective components of social identity are as follows: (a) "I think nurses have little to be proud of" (reverse-scored); (b) "I feel good about nurses in general"; (c) "I have a lot of respect for nurses in general"; (d) "I would rather quit my profession than keep being a nurse" (reverse-scored); (e) "I like doing things that have an impact on the situation of nurses"; (f) "When I hear someone speaking ill of nurses, I defend them"; (g) "I don't like nursing as a profession anymore" (reverse-scored); and (h) "I don't like to say that I am a nurse" (reverse-scored). Internal consistency for this scale was .70.

*Perceived in-group status of nurses.* This variable was used to ensure that respondents' views of nurses corresponded to their social standing. The items grouped in this scale were based on previous work (Ellemers et al., 1999; Lortie-Lussier, 1992) and are as follows: (a) "In general, people are proud of nurses in Québec"; (b) "In general, the population does not have a good opinion of nurses in Québec" (reverse-scored); (c) "In general, people have a lot of respect for nurses in Québec"; (d) "In general, the reaction of people toward nurses is favorable"; (e) "In general, people say good things about nurses"; (f) "In general, people support nurses in Québec"; (g) "In general, people have little pride in nurses" (reverse-scored); and (h) "In general, people know the situation of nurses in Quebec." Internal consistency of this

scale was .92, and the mean score indicated that nurses felt well-perceived by the general population ( $M = 5.15$ ,  $SD = 0.99$ ).

## Results

Data for this study were analyzed in two main steps. First, preliminary analyses were conducted to test the assumption of normality. Second, to test two contrasting models, path analysis was performed with the Amos statistical package (Arbuckle, 1999). To assess better the adequacy of our models, several indexes of fit were selected, as recommended by many authors (Bollen & Long, 1993; Hoyle & Panter, 1995). As Bollen and Long mentioned, there is consensus that no single measure of overall fit should be relied on exclusively. Chi square ( $\chi^2$ ), comparative fit index (CFI; Bentler, 1990a, 1990b; Bentler & Chou, 1987), and root mean square error of approximation (RMSEA; Browne & Cudeck, 1993) were chosen for this study. Values over .90 for CFI and lower than .10 for RMSEA are expected (Byrne, 2001; Kline, 2005). Moreover, the significance of each predictive link of the models was evaluated ( $> \pm 1.96$ ,  $p < .05$ ) (see Byrne, 2001).

### *Preliminary Analyses*

Preliminary analyses show that the data were normally distributed (see Table 1). In total, 7 participants were eliminated because of missing data and the presence of one multivariate outlier.

### *Evaluation of the First Model: First Theoretical Approach*

Analyses suggest that the first model (see Figure 1a) should not be accepted, as the links between both types of collective relative deprivation and in-group identification were not significant ( $p > .05$ ). Moreover, after removing these two nonsignificant links, fit indexes suggest that the fit of the model was inadequate, as the RMSEA was too high and that the predicted model was significantly different from the data,  $\chi^2(8, N = 101) = 15.53$ ,  $p = .05$  (CFI = .97, RMSEA = .10).

### *Evaluation of the Second Model: Second Theoretical Approach*

Analyses suggest that the second model (see Figure 1b) should be accepted, as all predicted links were significant ( $p < .05$ ). Moreover, the

Table 1  
*Correlations Among Variables and Summary of Descriptive Statistics*

	<i>M</i>	<i>SD</i>	Skewness	Kurtosis	1	2	3	4	5	6	7	8
1. Number of negative social change	21.39	7.07	.13	-.28	—							
2. Pace of negative social change	20.69	6.52	.20	.11	.91**	—						
3. Number of changes	4.50	0.99	-.46	-.32	.87**	.74**	—					
4. Valence of changes	4.67	0.83	-.23	.07	.84**	.81**	.48**	—				
5. Pace of changes	4.36	0.91	-.68	.78	.69**	.84**	.76**	.40**	—			
6. In-group identification	5.10	0.93	-.10	-.02	.20*	.25*	.17	.18	.23*	—		
7. Social collective relative deprivation	5.06	0.65	.89	.44	.38**	.32**	.22*	.40**	.10	.26**	—	
8. Temporal collective relative deprivation	5.23	0.74	.68	-.25	.41**	.42**	.23*	.46**	.20*	.30**	.71**	—
9. Collective esteem	5.46	0.72	-.05	-.62	.06	.03	.10	.00	.05	.39**	.11	-.08

\**p* < .05. \*\**p* < .01, two-tailed.

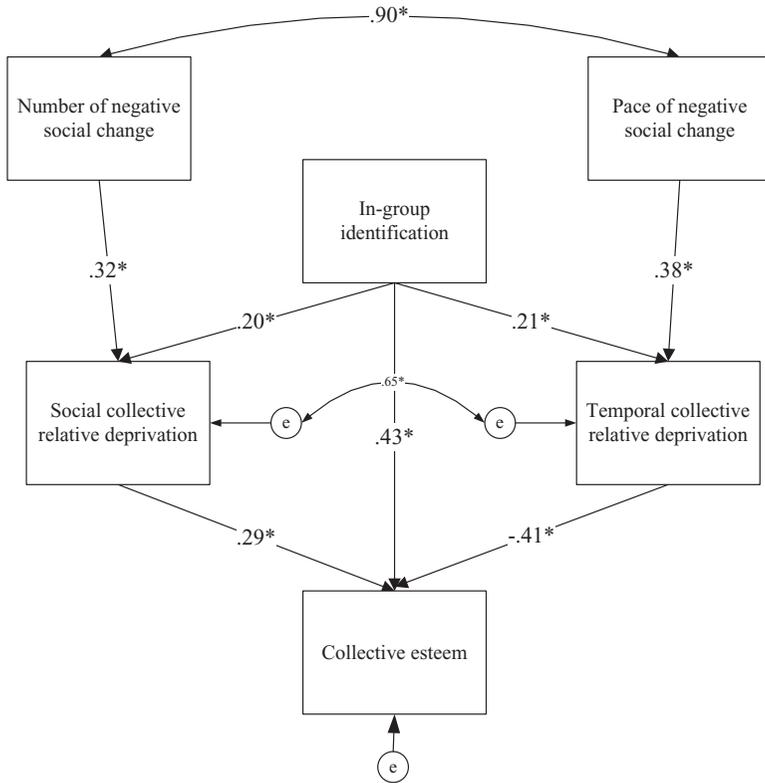


Figure 2. Final model relating social change, relative deprivation, and social identity. Values identified with an asterisk are estimated parameters that are significant at  $p < .05$ .

indexes provided for the second model were acceptable,  $\chi^2(6, N = 101) = 9.68$ ,  $p = .14$  (CFI = .99, RMSEA = .07). The second model was thus considered as final. Figure 2 illustrates the final model with the standardized coefficients.

In view of the limited number of participants, a bootstrap technique was conducted ( $N = 1000$ ). The bootstrap technique was performed with the Amos statistical package (Arbuckle, 1999). This analysis confirmed the stability and generalizability of the links included in the final model (for complete results, see Table 2).

### Evaluation of Alternative Models

Because social identity theory has also been linked to social change (Ashmore et al., 2004; Breakwell, 1986; Deaux, 1993, 1996; Deaux & Stewart,

Table 2

*Bootstrap Results*

	Standardized regression coefficient			
	<i>M</i>	Lower bound	Upper bound	<i>p</i>
1. Number of negative social change → Social collective relative deprivation	.32	.12	.50	.004
2. Pace of negative social change → Temporal collective relative deprivation	.37	.19	.56	.002
3. In-group identification → Social collective relative deprivation	.21	.04	.37	.042
4. In-group identification → Temporal collective relative deprivation	.20	.06	.37	.015
5. Social collective relative deprivation → Collective esteem	.28	.07	.46	.021
6. Temporal collective relative deprivation → Collective esteem	-.40	-.60	-.19	.004
7. In-group identification → Collective esteem	.44	.30	.57	.002

Note.  $n = 1000$ .

2001; Ethier & Deaux, 1994; Timotijevic & Breakwell, 2000; see also Breakwell & Lyons, 1996), we tested two additional alternative models. In addition to the paths included in the final model (see Figure 2), the first alternative model comprised a path relating the two variables of social change to in-group identification. In the second alternative model, a path relating the two variables of social change to collective esteem was added. In all cases, paths relating social change to social identity (in-group identification or collective esteem) were not significant ( $p > .05$ ). These results suggest that the link between social change and social identity is mediated by collective relative deprivation.

### Discussion

To date, research assessing the impact of change has focused on the personal situation of individuals. For example, it has been shown that initiating numerous and fast-paced organizational restructuring is accompanied

by feelings of personal threat, distress, and job dissatisfaction (Hobfoll & Lilly, 1993; Kelly & Steed, 2004; Littler, Dunford, Bramble, & Hede, 1997; Morgan & Zeffane, 2003; Schmitt & Maes, 1998; Shteyn, Schumm, Vodopianova, Hobfoll, & Lilly, 2003; Slone, Kaminer, & Durrheim, 2002; Tsutsumi, Nagami, Morimoto, & Matoba, 2002). However, societal and organizational change not only affect individuals, but groups as well. Evaluating how individuals view the impact of change on their in-group is important on many accounts. Responses of individuals are a key factor in the success of social change (Rogers, 2003).

For example, negative reactions of workers can sabotage plans for organizational reform designed to upgrade services to a community in need or to ensure a return on costly technologies. Thus, understanding the overall effects of numerous and fast-paced changes is pivotal. Yet, the consequences of social change are insufficiently studied (Rogers, 2003); this, despite the fact that analysts have long ago acknowledged the need to study social change (Moscovici, 1972; Tajfel, 1978). Moreover, research on relative deprivation has shown that people's reactions to their group situation are stronger and have more social impact than do those at the personal level (Dubé & Guimond, 1986; Martin & Murray, 1983; Olson, Roese, Meen, & Robertson, 1995; Walker & Mann, 1987).

The present study evaluated the reactions of nurses to changes in their work environment triggered by decisions taken by governmental authorities, and by the introduction of new technologies and new treatment protocols. The focus was on the estimated impact of numerous and rapid negative social changes on the situation of nurses as a group. The first goal of the present study was to replicate findings of studies conducted in the context of societal change. As was found with Russians and Mongolians (de la Sablonnière, Tougas et al., in press), the more nurses perceived an increase in the number of negative social changes affecting their work situation, the stronger were their reported feelings of social collective relative deprivation. As with Russians and Mongolians, the more nurses perceived the pace of negative social change to be high, the more they expressed feelings of temporal collective relative deprivation.

These findings allow us to draw one main conclusion: Societal and organizational changes trigger the same type of reactions toward one's group. To evaluate their collective situation, people prefer social comparisons when a large number of elements in the environment are modified. However, when changes are rapid, temporal comparisons are more useful and will be preferred by individuals to estimate their collective conditions as perceived as unique to their group.

In a world challenged by constant change, it is fundamental to identify the processes that guide the psychological reactions of people directly affected by

social change. The present research focused on two of the leading theories in social psychology that previously have been related to the psychology of social change; that is, relative deprivation and social identity. Testing an integration of these theories and taking into account two theoretical approaches of the role of in-group identification was our second goal. Path analyses strongly support the second theoretical approach, stating that attachment to one's group renders people more sensitive to collective disadvantages (Abrams, 1990; Tougas & Beaton, 2002; Tropp & Wright, 1999). Indeed, it was found that the more nurses felt attached to their own group, the more they reported feelings of collective relative deprivation.

In contrast, the results did not support the theoretical approach arising from the research by Branscombe and her colleagues (Branscombe et al., 1999; Garstka et al., 2004; Redersdorff et al., 2004). Their approach predicts that in-group identification will be reinforced by feelings of collective relative deprivation on account of both temporal and social disadvantageous comparisons, and that collective esteem will be protected. This model was not confirmed, and, at first glance, findings could be seen as contradictory to the view that experiences of disadvantage reinforce group attachment. Studies confirming this view have examined the link between personal discrimination (Branscombe et al., 1999; Schmitt, Spears, & Branscombe, 2003) or pooled personal and collective disadvantage (Schmitt, Branscombe, Kobrynowicz, & Owen, 2002) and in-group identification.

It is possible that personal discrimination on account of group membership intensifies in-group identification. This association is not in contradiction with the argument that in-group identification is significant in the development of sensitivity to group disparities and feelings of collective relative deprivation. Further studies are needed to test a reconciliation of these seemingly competing views of the relation between disadvantage and group identification. Evaluating personal disadvantage, group disparities, the cognitive aspect of social identity, self-esteem, and collective esteem separately and testing their relation would be a first step.

The third goal of the present study was to test the relation between collective relative deprivation and collective esteem. As predicted, the results show that collective esteem was negatively affected by feelings of temporal collective relative deprivation. When people feel that their collective situation has deteriorated and will continue to do so, their collective esteem suffers. In short, collective esteem is not shielded from invidious temporal comparisons.

In contrast, it was predicted that collective esteem is protected from feelings of social collective relative deprivation when individuals belong to a group whose status is highly valued in society. This positive path from social collective relative deprivation to collective esteem was based on previous studies suggesting that in-group status can protect collective esteem from

feelings of discontent triggered by negative social comparisons (Ellemers et al., 1999; Garstka et al., 2004). The nursing profession is not only well regarded by the general population (Cohen, 2000), its members are trusted more than any other professionals (Regulatory Notes, 1997).

The results of this study should be interpreted with caution. The response rate was low, and it is possible that the respondents were the most discontented nurses. Moreover, the data are correlational and do not imply causal effect. Experimental designs would certainly help in understanding better the reactions to social change. By controlling important aspects of social change (e.g., number, valence, pace), valuable knowledge concerning the sequence of individuals' reactions could be gathered. It could then be ascertained whether in-group identification protects individuals from the negative effects of collective relative deprivation or increases such feelings. There is certainly a need to understand the links between social change, relative deprivation, and social identity in an experimental fashion or with a longitudinal methodology.

The present study evaluated the deleterious effects of numerous and rapid negative changes by taking into account both temporal and social collective relative deprivation. Beyond this, two psychological mechanisms involved in protecting collective esteem were examined: in-group identification and perceived in-group status. This is important as organizations and indeed entire societies are coping with fast-paced change triggered by the globalization of the economy and by groundbreaking advances in technology. People may deny or resist change, but however they react, their lives are forever altered. Investigating protective psychological mechanisms is warranted, as the negative social effects of bruised collective esteem have been documented (Breakwell, 1986). In this whirlwind transformation of societies and organizations, individuals must find ways to protect their group pride.

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