

# Journal of Cross-Cultural Psychology

<http://jcc.sagepub.com>

---

## **Dramatic Social Change in Russia and Mongolia: Connecting Relative Deprivation to Social Identity**

Roxane de la Sablonnière, Francine Tougas and Monique Lortie-Lussier  
*Journal of Cross-Cultural Psychology* 2009; 40; 327 originally published online Mar 5, 2009;  
DOI: 10.1177/0022022108330986

The online version of this article can be found at:  
<http://jcc.sagepub.com/cgi/content/abstract/40/3/327>

---

Published by:



<http://www.sagepublications.com>

On behalf of:



[International Association for Cross-Cultural Psychology](http://www.iaacp.org)

**Additional services and information for *Journal of Cross-Cultural Psychology* can be found at:**

**Email Alerts:** <http://jcc.sagepub.com/cgi/alerts>

**Subscriptions:** <http://jcc.sagepub.com/subscriptions>

**Reprints:** <http://www.sagepub.com/journalsReprints.nav>

**Permissions:** <http://www.sagepub.com/journalsPermissions.nav>

**Citations** <http://jcc.sagepub.com/cgi/content/refs/40/3/327>

# Dramatic Social Change in Russia and Mongolia

## Connecting Relative Deprivation to Social Identity

Roxane de la Sablonnière  
*Université de Montréal*

Francine Tougas

Monique Lortie-Lussier  
*University of Ottawa*

Two studies assess people's reactions in the midst of dramatic social change. The studies examine consequences of social change in Russia and Mongolia after the dismantlement of the Soviet Union. They focus on the impact of social changes that are numerous, negative, and rapid. Specifically, an integration of relative deprivation and social identity theories is proposed. According to hypotheses, it is found that the more people perceive social change as numerous and negative, the more they experience social collective relative deprivation. In addition, the more people perceive social change as rapid and negative, the more they express temporal collective relative deprivation. Both types of collective relative deprivation are linked to collective esteem: Whereas the path from temporal collective relative deprivation is negative in both studies, the valence of path from social collective relative deprivation to collective esteem depends on perceived in-group status of the cultural group.

**Keywords:** *social change; relative deprivation; social comparisons; temporal comparisons; collective esteem; social mobility*

The only constant in life is change: Societies are in perpetual mutation, but the scope and pace of transformations vary widely. On one hand, social changes can be characterized as largely cumulative: New elements are continually added to an existing system (Nolan & Lenski, 1998). Such changes are continuous, slowly evolving within the adaptive capacities of a social structure without altering its basic functioning.

On the other hand, some changes are more than just signs of the normal flow of time, as they profoundly reshape the entire social structure. What is considered immutable is

---

**Authors' Note:** This research was supported by the Social Sciences and Humanities Research Council of Canada and by the Civic Education Project. We thank Donald M. Taylor and Fathali M. Moghaddam for their assistance and thoughtful comments on earlier versions of this article. We also are thankful to Vera Alexandrovna Adamantova, Eugene Dotsenko, Onon Perenlei, Simon F. Coulombe, and Sophie Benoît, who helped at different stages of this research. Correspondence should be addressed to Roxane de la Sablonnière, Département de Psychologie, Université de Montréal, C. P. 6128, succursale Centre-Ville, Québec, Canada, H3C 3J7; e-mail: [roxane.de.la.sablonniere@umontreal.ca](mailto:roxane.de.la.sablonniere@umontreal.ca).

transformed in an instant. The existing system becomes unstable as it succumbs to the pressure of fast-paced disruptive events. Events of this nature are challenging, because they bring about a sharp discontinuity between the past and the present (Moghaddam & Crystal, 1997; Parsons, 1964; Rocher, 1992; Rogers, 2003).

In this article, the term *social change* refers to profound societal transformations such as socio-cultural changes. Social change of this magnitude points to a complete rupture in the equilibrium of social structures because their adaptive capacities are surpassed (Parsons, 1964; Rocher, 1992; Rogers, 2003). This type of social change is characteristic of present-day modern societies: In the past few decades, numerous and rapid dramatic societal reconfigurations have transformed the geopolitical face of the world (Nolan, & Lenski, 1998; Zuck, 1997). Examples of such social change include defining political events such as the collapse of the Soviet Union and the creation of the European Union.

Individuals may deny, resist, or adapt to changes, but as was noted centuries ago, “*Tempora mutantur, nos et mutamur in illis*” (Harrison, 1577, reedited in 1994: p.170), times change and so do we. Yet the study of the psychological impact of profound social change on individuals and collectivities has been understudied in the social sciences generally and in social psychology in particular (see Moghaddam, 1999, 2002; Moscovici, 1972; Tajfel, 1972). Among studies pertaining to this issue, an important segment was devoted to the responses of individuals to organizational and societal restructuring. In these studies, the focus was on the number and the pace of change. It has been shown that in most instances, individuals are personally destabilized, threatened, and distressed when their environment is reconfigured by large-scope and fast-paced changes or by either of the two (e.g., Hobfoll & Lilly, 1993). Research has also demonstrated that numerous and rapid social changes have consequences beyond personal considerations: Individuals’ rapport with their in-group is also affected. Part of this research is linked to Relative Deprivation Theory (Crosby, 1976), and the other is based on Social Identity Theory (Tajfel, 1978; Tajfel & Turner, 1986).

The general goal of the present article is to examine one of the most challenging and neglected topics in all of psychology: behavior in the midst of change. Specifically, the focus is on the impact of numerous and rapid socio-cultural changes on people’s views on and relations with their national group. We propose an integration of relative deprivation and social identity theories to account for reactions to major societal change.

Relative deprivation theory is one of the few social psychological theories that can be applied to social change. One important assumption of Relative Deprivation Theory is that people react to the subjective—rather than to the objective—position of their group. Moreover, it is contended that the social or cultural context in which the group evaluation is made plays an important role in the emergence of feelings of relative deprivation (Stouffer, Suchman, De Vinney, Star, & Williams, 1949). In sum, relative deprivation is subjective and context dependent. Specifically, the concept of collective relative deprivation refers to discontent engendered by invidious group comparisons (Crosby, 1976; Runciman, 1966, 1968). Previous research has mainly focused on social collective relative deprivation, which involves in-group and out-group comparisons (Guimond & Tougas, 1994; Walker & Pettigrew, 1984). However, temporal “collective relative deprivation” can also be considered as an important source of threat (Crosby, 1976; Folger, 1977, 1986; Gurr, 1970; Pettigrew, 1967; Runciman, 1966; Tougas & Beaton, 2002). A member of a

group can become dissatisfied when comparing the present situation of his or her own group with its past or expected future situation.

Social change has been associated with feelings of threat, measured by collective relative deprivation (Beaton, Tougas, & Joly, 1996; Tougas, de la Sablonnière, Lagacé, & Kocum, 2003). More precisely, it was found that the number and pace of social change were associated with different forms of collective relative deprivation (Beaton et al., 1996; Tougas et al., 2003). First, feelings of social collective relative deprivation were shown to increase as the number of social change grew. In these studies, *number* of social change referred to the increased numerical representation of minority group members in different settings. According to relative deprivation theory, members of a group are inclined to engage in social comparisons to evaluate their group status. When social changes are negative and numerous, thus affecting many aspects of their social environment, they will continue to engage in such comparison process to reassess their group's position.

Second, the pace of social change, referring to the rate of increase of minorities, was found to be related to temporal collective relative deprivation. This hypothesis was based on previous research showing that fast-paced changes constitute a major threat (Albert, 1977). Temporal comparisons, found to be particularly important during times of rapid change, allow people to reassess their collective situation and reposition their group in a profoundly modified environment (Brown & Middendorf, 1996). Dramatic social change is a destabilizing force (Albert & Sabini, 1974), causing the affected groups to consider each new situation as unique (de la Sablonnière, Taylor, Perozzo, & Sadykova, in press; de la Sablonnière & Tougas, 2008). For this reason, individuals have difficulty identifying comparison groups to evaluate their current conditions. Instead, they take into consideration their past history or project themselves into time. As people attempt to adjust to their new reality, it is temporal comparisons that allow them to make reasonable judgments concerning their relative current status.

The first goal of the two studies presented in this article was to determine whether the links between social change—produced by the introduction of minorities—and collective relative deprivation apply to social change, which refers to major social restructures. In addition, studies presented take into account the valence of social change. For example, the introduction of numerous social changes can be well received if these changes respond to people's demands, eliminate undue practices, or allow more freedom. It is the conjunction of numerous and negative change that trigger feelings of social collective relative deprivation.

Further accounting for group-based reactions following the introduction of fast-paced massive social changes is provided by taking into consideration the research on Social Identity Theory. Indeed, social change has been linked to social identity (Amiot, de la Sablonnière, Terry, & Smith, 2007; Breakwell, 1986). Social identity refers to the individual's knowledge of belonging to one or many social groups, as well as the associated affective and evaluative meaning (Tajfel, 1978). The latter component, labeled *collective esteem*, is concerned with group worth, respect, and value (also see Taylor, 1997, 2002). According to Social Identity Theory, people strive to achieve and maintain a positive social identity by making group comparisons to assess the social position of their in-group (Tajfel & Turner, 1986).

It has been argued that collective esteem is negatively affected by collective relative deprivation (Tougas & Beaton, 2002; Walker, 1999). Following Crosby's (1976) proposition that people with high feelings of personal relative deprivation suffer lower well-being (i.e., low

self-esteem), Walker (1999) proposed that collective relative deprivation is negatively related to collective esteem. Studies evaluating the relation between temporal collective relative deprivation and collective esteem, have confirmed this hypothesis (de la Sablonnière et al., in press; de la Sablonnière & Tougas, 2008; Zagefka & Brown, 2005). In contrast, the testing of the relation between social collective relative deprivation and collective esteem yielded to inconsistent results: This link has been found to be positive (e.g., Petta & Walker, 1992), marginally significant (Walker, 1999), nonexistent (e.g., Tougas & Veilleux, 1988), and negative (e.g., Zagefka & Brown, 2005). To account for these inconsistent results, we take into account the main assumptions of Relative Deprivation Theory.

Recall that relative deprivation is considered subjective and context dependent. It follows that the link between collective relative deprivation and collective esteem is also affected by the social or cultural context. Thus, we argue that if the in-group is well viewed and if the prevalent situation favors group enhancement, the link between social collective relative deprivation and collective esteem should be positive. For instance, if group members have gained group status worldwide (e.g., because of social reforms), their actual perceived cultural in-group status will allow its members to be proud of their country, even if they are dissatisfied with comparisons with more advantaged countries. In that context, being well-perceived worldwide in adverse conditions boosts group members' collective esteem. In contrast, the link between social collective relative deprivation and collective esteem should be negative if the cultural in-group is poorly viewed and if the prevalent situation points to a deteriorating reputation. These predictions are in line with previous research showing that collective esteem is sensitive to group status (Ellemers, Kortekaas, & Ouwerkerk, 1999). Up to date, however, the role of the cultural context, and more precisely the in-group status, in the relation between collective relative deprivation and collective esteem has not been evaluated.

The second goal of the two studies presented in the present article is to redress this situation by assessing the links between both social and temporal collective relative deprivation and collective esteem in two different cultural contexts: Russia and Mongolia. Cross-cultural studies are particularly relevant to determine whether the relation between social collective relative deprivation and collective esteem is universal—as suggested by Relative Deprivation Theory—or is dependent on people's cultural context. On the one hand, we hypothesize that in a cultural context where the actual in-group status is generally perceived as low, such as in Russia, the links between both types of collective relative deprivation (social and temporal) and collective esteem will be negative. On the other hand, we hypothesize that in a cultural context where the actual perceived in-group status is high, such as in Mongolia, the link between social collective relative deprivation and collective esteem will be positive, but the link between temporal collective relative deprivation and collective esteem will be negative.

## Cultural Contexts of Studies 1 and 2

The first study took place in Russia. Russia was considered as the best model of a communist nation by other republics. However, this country has undergone dramatic social change since the fall of the communist regime in 1991. Everyday life in Russia is still difficult, as a result of the political, socio-cultural, and economic changes undertaken

in recent years; some for the better, most for the worse (Boone & Fedorov, 1997; Pirogov & Pronin, 1999). These changes had profound consequences on the living conditions. For example, Russian people encountered major problems with their health and education systems (Encarta, 1993-1998). The future also seems rather grim. It has been suggested that “within a few decades Russia will concern the rest of the world no more than any Third World country” (Tayler, 2001, p. 35).

The second study was conducted in Mongolia where our hypotheses were tested in a different but related context of dramatic social change. As a former satellite country of the Soviet Union, Mongolia has been greatly affected by the breakup of the U.S.S.R. After 1991, Mongolia lost U.S.S.R.’s important economic and military support and experienced an economic recession, with an inflation rate of 326% (Badarch, Batsukh, & Batmunkh, 2003). Mongolia has gone through what economists call a “shock therapy,” which can be defined as the implementation of several rapid economic reforms such as privatization of state-owned enterprises (Woo, Parker, & Sachs, 1997). These radical but peaceful economic reforms initiated in 1990 are considered to be relatively successful (e.g., Badarch et al., 2003; Nørgaard, 2000). Consequently, in 1999, inflation dropped to 10% and the economy stabilized (Badarch et al., 2003).<sup>1</sup>

In sum, the consequences of social restructuring in Mongolia seem more positive than in Russia, as Mongolia gained status worldwide with the creation of a democratic political system promoting new cultural values. In contrast, Russia has lost its worldwide super-power status with the fall of communism.

## Study 1

The first study tested a predictive model, including positive paths from the number of social change to social collective relative deprivation and from the pace of social change to temporal collective relative deprivation. A correlational link between the number and pace of social change is also proposed on the basis of previous studies (Beaton et al., 1996; de la Sablonnière & Tougas, 2008; Tougas et al., 2003). Because this study was conducted in a context of declining reputation, the postulated model includes negative relations between both social and temporal collective relative deprivation and collective esteem.

## Method

### Participants

This study was conducted at the Tyumen State University and the Gubkin Russian State University of Oil and Gas. Tyumen, a typical Russian city of 560,000 people, is located 1,800 km east of Moscow in the region of the Ural Mountains. In 2000, students from 11 departments were asked to fill out a questionnaire during class hours by a Russian assistant and a Canadian researcher. Only students of Russian nationality (423 out of 500) were included in the analyses. The majority were women (70%), and their age ranged from 17 to 43 years ( $M = 20$  years).

## Questionnaire

The questionnaire was developed in French. It was translated into Russian and back into French (back-translation). The final version was edited by a Russian translator.

*Number of social change.* This scale refers to the respondent's perceived degree or extent of positive or negative change in the society. It was based on documentation pertaining to the different ministries of the Government of the Russian Federation and to the reforms initiated in Russia since 1991. A total of 13 domains of change were identified (see Table 1). A score of 1 indicated *everything changed for the better* and 7 indicated *everything changed for the worse* (Cronbach's alpha = .78).

*Pace of social change.* Participants were asked to evaluate the pace of change for each domain listed in the above scale, from 1 = *extremely slow* to 7 = *extremely fast* (Cronbach's alpha = .75).

*Social collective relative deprivation.* Participants were first asked to identify the group to which they compared Russians most frequently (East Europeans,  $N = 107$ ; West Europeans,  $N = 199$ ; North Americans,  $N = 65$ ; Asians,  $N = 22$ ; and Other,  $N = 17$ ). In all, 13 participants did not indicate a comparison group. Drawing from previous studies (Tougas & Beaton, 1993; Tougas et al., 2003), the cognitive component was evaluated by asking participants to compare Russians to their chosen group, from 1 indicating *much better* to 7 indicating *much worse*, in terms of (a) health system, (b) work, (c) security, (d) education, (e) environment, and (f) justice (Cronbach's alpha = .68). The affective component was measured by asking participants whether they were dissatisfied with each perceived discrepancy, from 1 indicating *not at all* to 7 indicating *absolutely* (Cronbach's alpha = .63). Two scores were computed, one grouping and averaging scores of the cognitive component and the other of the affective component.

*Temporal collective relative deprivation.* Participants were asked to compare the actual and expected future (5 years) conditions of Russians in the same terms. Internal consistency for the cognitive component was .84 and .82 for the affective component.

*Collective esteem.* The items of this scale were derived from previous work (Ellemers, Kortekaas, & Ouwerkerk, 1999; Jackson, 2002; Luhtanen & Crocker, 1992). The items are as follows: (a) I think Russians have little to be proud of (pride)<sup>2</sup>; (b) I feel good about Russians in general (feel); (c) I have a lot of respect for Russians in general (respect). Answers of 1 indicated *not at all* and 7 indicated *absolutely* (Cronbach's alpha = .76).

## Analyses

The proposed model was tested using structural equation modeling (Amos statistical package; Arbuckle, 1999). As suggested, three fit indices were taken into consideration to evaluate the adequacy of the model (Bollen & Long, 1993). The chi-square is a test of the level of discrepancy between the fitted covariance, as specified in the hypothesized model and the sample covariance. A large value of the chi-square statistic relative to its degree of freedom

**Table 1**  
**Loadings of Four Aspects of Social Change, Percentage**  
**of Explained Variance, and Eigenvalues for the Number**  
**of Social Change and the Pace of Social Change Scale (Study 1, Russia)**

	Security		Education		Quality of Life		Social Environment	
	Number	Pace	Number	Pace	Number	Pace	Number	Pace
1. Personal security	<b>.710</b>	<b>.748</b>	.116	.098	.152	.224	.236	.135
2. Criminality	<b>.808</b>	<b>.773</b>	.033	.053	.135	.029	.236	.331
3. Corruption	<b>.781</b>	<b>.588</b>	.043	.009	.099	-.018	.132	<b>.457</b>
4. Educational level	.040	.216	<b>.737</b>	<b>.652</b>	.131	.103	.068	-.105
5. Quality of the school system	.087	.045	<b>.790</b>	<b>.796</b>	.013	.021	.087	.070
6. Quality of institutions of higher learning	.056	-.129	<b>.797</b>	<b>.790</b>	.102	.012	-.013	.130
7. Job security	.247	.040	.026	.026	<b>.716</b>	<b>.709</b>	-.073	.035
8. Social services	-.064	.313	.122	-.032	<b>.661</b>	<b>.704</b>	.351	-.149
9. Health system	-.033	.003	.389	.109	<b>.466</b>	<b>.663</b>	.352	.193
10. Quality of life	.226	-.017	.093	.049	<b>.713</b>	<b>.633</b>	.063	.376
11. Environment	.168	.368	-.023	-.065	.050	.037	<b>.724</b>	<b>.525</b>
12. Poverty	.182	.159	.069	-.016	.182	.225	<b>.600</b>	<b>.728</b>
13. Justice system	.233	.244	.114	.198	.026	.081	<b>.732</b>	<b>.650</b>
Eigenvalues	1.76	1.67	3.65	.84	1.06	3.37	1.17	1.53
% of explained variance	13.50	12.85	28.09	6.42	8.14	25.92	9.00	11.75
% of total variance explained	58.72	56.94						

Note: Factor loadings over .45 are in bold.

is evidence that the proposed model does not adequately describe the data. However, the chi-square is known for its sensitivity to sample size (Kline, 2005). Thus, the comparative fit index (CFI; Bentler, 1990) and the standardized root mean square residual (SRMR; Kline, 2005) were selected because of their resistance to sample bias (Hu & Bentler, 1999). Values over .90 for the CFI and less than .10 for the SRMR are considered appropriate.

If the fit of the postulated model is inadequate, modification indices are provided. Modification indices can be viewed as a  $\chi^2$  statistic with 1 degree of freedom for each fixed parameter specified. This value represents the overall drop in  $\chi^2$  value if the parameter were to be freely estimated (Byrne, 2001). Decisions on how to improve the model should be based on fit indices and theoretical considerations (Arbuckle & Wothke, 1999).

## Results and Discussion

### Preliminary Analyses

Preliminary analyses showed that the data can be considered normal (see Table 2). No outliers were found and missing values (less than 2% per variable) were replaced by their

**Table 2**  
**Correlations Among Variable and Summary of Descriptive Statistics (Study 1, Russia)**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Number of social change (security)	—	.17**	.36**	.45**	.58**	.08	.18**	.34**	.18**	.21**	.18**	.22**	-.07	-.09	-.07
2. Number of social change (education)		—	.33**	.19**	.12*	-.09	.18**	.13**	.07	.03	.13*	.14**	-.12*	-.08	-.09
3. Number of social change (quality of life)			—	.36**	.20**	-.07	.54**	.26**	.13**	.05	.23**	.24**	-.09	.01	-.06
4. Number of social change (social environment)				—	.38**	-.03	.24**	.60**	.23**	.24**	.24**	.26**	-.18**	-.08	-.12*
5. Pace of social change (security)					—	.12*	.28**	.56**	.19**	.23**	.13**	.19**	-.07	-.08	-.06
6. Pace of social change (education)						—	.12**	.13**	-.06	-.08	-.06	-.08	-.05	-.04	-.02
7. Pace of social change (quality of life)							—	.31**	.02	-.04	.04	.07	.01	.01	.02
8. Pace of social change (social environment)								—	.09	.11*	.16**	.21**	-.11*	-.07	-.07
9. Social collective relative deprivation (cognitive)									—	.75**	.03	.06	-.22**	-.11*	-.15**
10. Social collective relative deprivation (affective)										—	.05	.09	-.14**	-.08	-.09
11. Temporal collective relative deprivation (cognitive)											—	.89**	-.10*	-.15**	-.22**
12. Temporal collective relative deprivation (affective)												—	-.10*	-.14**	-.18**
13. Collective esteem (pride)													—	.37**	.45**
14. Collective esteem (feel)														—	.71**
15. Collective esteem (respect)															—
<i>M</i>	5.22	3.28	4.05	5.19	4.81	4.04	4.01	4.82	4.79	4.64	3.18	3.26	6.23	5.86	5.58
<i>SD</i>	1.07	1.01	0.96	0.97	1.07	0.87	0.92	1.01	0.83	0.83	1.11	1.34	1.20	1.13	1.27
Skewness	-0.64	0.18	0.26	-0.44	-0.33	0.21	0.05	-0.27	-0.74	-0.25	0.21	0.38	-2.24	-1.57	-1.20
Kurtosis	0.78	0.20	-0.26	0.57	0.37	0.19	-0.09	0.11	1.63	1.61	0.24	-0.17	5.17	3.14	1.31

\* $p < .05$ . \*\* $p < .01$ . (2-tailed)

predicted values with a regression to the trend. Finally, an analysis of variance (ANOVA) was performed to compare the scores of social collective relative deprivation of the participants of each of the five comparison categories. The ANOVA was significant,  $F(4, 405) = 4.79, p < .01, \eta^2 = .05$ ; and the Scheffe post hoc tests revealed significant mean differences between the Asian ( $M = 4.25$ ) and two other comparison groups: the North Americans ( $M = 4.86$ ) and the West Europeans ( $M = 4.82$ ). Participants were nonetheless pooled to form one sample group as including or excluding people; comparing their group with Asians produced similar results.

## Exploratory Factor Analysis

To improve the parsimony of the model, two exploratory factor analyses were conducted on the scales measuring the number and the pace of social change. The principal component technique with varimax rotation was used. Indices such as factor loadings, proportion of variance explained, and acceptable eigenvalues showed that both scales contained four factors, which we computed and used in the following analyses, under these labels: security, education, quality of life, and social environment (see Table 1).<sup>3</sup> Although, social change overall was perceived as relatively numerous and negative ( $M = 4.44$ ) and as relatively rapid ( $M = 4.42$ ), occasionally perceptions of social change in specific area were not perceived uniformly. For example, for the Number of Social Change Scale, the mean score for one out of the four scales was below the midpoint (i.e., education,  $M = 3.28$ ).

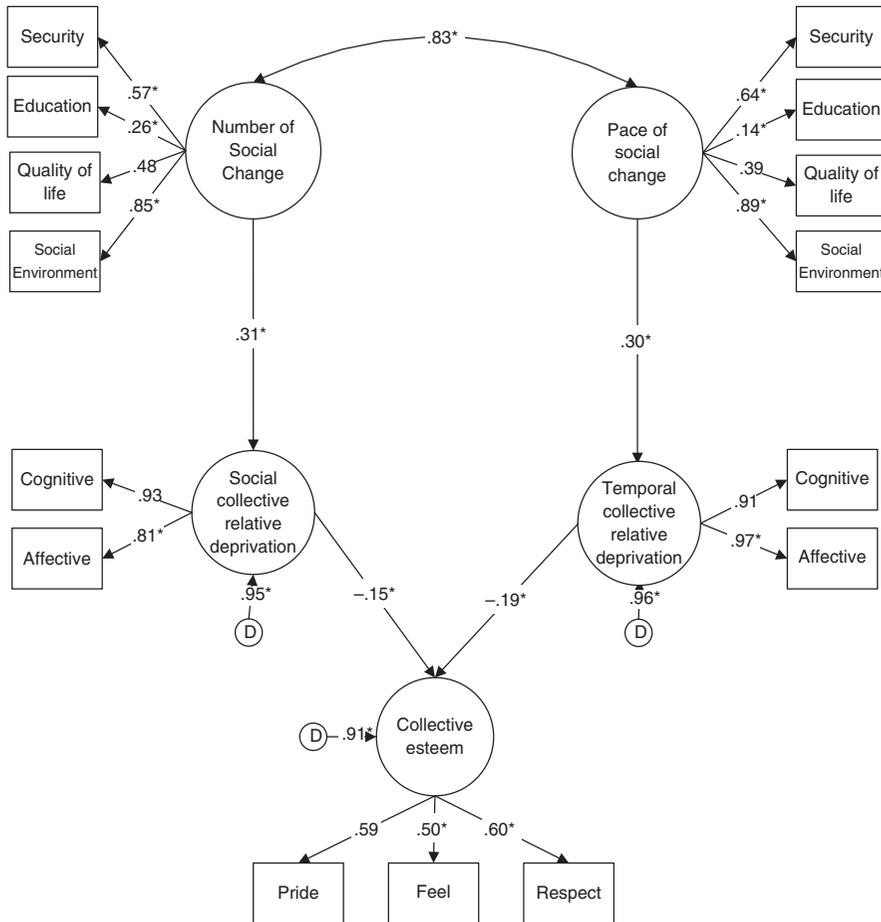
## Evaluation of the Proposed Model

Results of the structural equation modeling revealed that the initial solution could not be considered final, as the CFI was too low,  $\chi^2(85, N = 423) = 413.63, p < .001, CFI = .86, SRMR = .07$ . Modification indices suggested adding one correlation between the error terms of quality of life to increase the fit of the model. This adjustment was justified, as these measures pertain to the two aspects of social change measured: number and pace. Modifications were significant,  $\Delta\chi^2(1) = 106.03, p < .001$ ; and the indices showed that the final model was adequate,  $\chi^2(84, N = 423) = 307.60, p < .001, CFI = .91; SRMR = .06$  (see Figure 1 for the final model).<sup>4</sup>

The present study focused on evaluating the impact of numerous and rapid large-scale socio-cultural change on collective relative deprivation. The final model indicates that, as the number of perceived negative social change increased, Russians reported stronger feelings of social collective relative deprivation. These feelings were equally strong whether Russians compared their situation to any of the five categories of national groups. This is not surprising, as the dismantling of the U.S.S.R. has been accompanied by very costly reforms; once a superpower, Russia is now considered by many as a developing country (e.g., Tayler, 2001).

This study also confirmed the importance of considering the pace when accounting for reactions to social change. As predicted, the faster the pace of transformations, the more Russians reported feelings of temporal collective relative deprivation. It could be argued that being destabilized by rapid change leads to a pessimistic view of the future. This conclusion is congruent with research showing that the pace of change is accompanied by dissatisfaction hinging on temporal rather than social comparisons (Tougas et al., 2003).

**Figure 1**  
**Final Model of Relations Between Social Change, Collective Relative Deprivation, and Collective Esteem (Study 1, Russia)**



Asterisk represents estimated parameters. All parameters are significant ( $p < .05$ ).

The present study linking the number of social change to social collective relative deprivation, and its pace of social change to temporal collective relative deprivation points to two different psychological mechanisms that are worthy of consideration. Previous studies evaluating relative deprivation have mostly focused on social comparisons, which are more prevalent than temporal comparisons (Suls, 1986; Suls & Mullen, 1982, 1984) and are spontaneously used by people (Crosby, 1976). In the context of numerous social changes, it is logical to think that, as the number of negative social change increases, individuals feel threatened when comparing their group's situation to that of other groups. This is in line with the social comparison theory suggesting that, in the absence of objective standards, people are inclined to measure the situation of their group against that of other groups.

However, in times of rapid change, temporal comparisons tend to be more relevant than social comparisons (Albert, 1977; Suls, 1986; Suls & Mullen, 1982, 1984). Research has recently found that when individuals find themselves in a unique situation, temporal comparisons increase in relevance (Hénault, de la Sablonnière, & Huberdeau, 2009). For example, Russians are likely to reassess their group situation across time to maintain a sense of continuity in the face of rapid social changes.

Finally, the present study confirms that relative deprivation is related to evaluations of the in-group (Walker, 1999). As predicted on the basis of the cultural context hypothesis, a negative path emerged from social collective relative deprivation to collective esteem. These findings are in line with research showing that the in-group status plays a role in the modulation of collective esteem (Ellemers et al., 1999). This is congruent with the fact that national pride has dwindled over the past decade in Russia (Tayler, 2001). In line with previous studies connecting temporal collective relative deprivation with collective esteem, it was found that frustration prompted by bleak estimations of the future translated into negative reactions to the in-group.

The study of the associated outcomes of social change would benefit from an exploration of the consequences of negative collective esteem. According to analysts, people react when their collective esteem is bruised (Breakwell, 1986, 1988; Tajfel, 1978) and turn to coping strategies when esteem is threatened by social change (Breakwell, 1986, 1988). Some of these strategies are meant to boost social identity (Tajfel & Turner, 1986). One example of such action is to leave one's group. This so-called exit or social mobility strategy is defined by Tajfel (1975) as "an individual's perception that he can improve his position in a social situation, or more generally, move from one position to another, as an individual" (p. 104). This new social position will then become less threatening for the individual (Breakwell, 1988) whose main goal is to improve his or her personal situation over and above the situation of the in-group (e.g., Wright, Taylor, & Moghaddam, 1990). That is, a more complex pathway from societal changes to social mobility is explored in Study 2.

## Study 2

This study conducted in Mongolia has two main goals. The first goal is to test the cultural context hypothesis according to which the reputation of the in-group has an impact on the link between social collective relative deprivation and collective esteem. If, according to predictions, the link between social collective relative deprivation and collective esteem was negative in Russia, it is expected to be positive in Mongolia, since its improved world-reputation contributes to shape this country's cultural context.

The second goal is to examine the consequence of collective esteem on social mobility. Then the specificity of the Mongolian social context warranted some refinement of the measures used in the first study. In this context, it seemed appropriate to estimate the change in the relative conditions of Mongolians across time rather than their collective situation across time. A variant of temporal collective relative deprivation referring to social comparisons across time was thus used. Moreover, to account for both the positive and the negative nature of social reforms, a third characteristic of social change was introduced as a unique variable measured with a specific scale: the valence of social change. By measuring the valence, the number, and the pace of social change independently, it becomes possible to

test the separate and interactive impact of (a) the valence with the number on social collective relative deprivation and of (b) the valence with the pace on temporal collective relative deprivation. By the same token, the interaction between the number of social change and the valence is no longer assumed as it was done in Study 1.

In this study, the postulated model proposes that the number of negative social change is positively related to social collective relative deprivation and that the pace of negative social change is positively related to temporal collective relative deprivation. A positive correlational link between the two measures of social change is included. It is also posited that the link between temporal collective relative deprivation and collective esteem is negative and that the link between social collective relative deprivation and collective esteem is positive. Finally, collective esteem is negatively related to emigration, a social mobility measure.

## Method

### Participants

In 2003, a total of 187 adults living in the capital of Mongolia, Ulaanbaatar, completed the questionnaire. Most participants (82.2%) were workers in different organizations. Questionnaires were also distributed to National University of Mongolia students who were over 22 years-old. Participants were met by a trained research assistant and filled out the questionnaire in her presence. The age of participants ranged from 23 to 71 years ( $M = 38.27$  years). In total, 36.1% of the respondents were men. Two participants did not specify their gender.

### Questionnaire

The questionnaire, originally in English, was translated into Mongolian and then back into English. The first revision was made by a Mongolian graduate student and a history professor. A pretest with 15 students and a focus group was conducted to provide feedback. A revised version was prepared and edited by a Mongolian translator.

*Number of social change.* Participants were asked to evaluate the amount of change from 1 = *no change at all* to 5 = *everything changed* in the 13 domains described in Study 1 (Cronbach's  $\alpha = .89$ ).

*Valence of social change.* Participants were asked to indicate the valence of each change from 1 = *extremely positive* to 5 = *extremely negative* (Cronbach's  $\alpha = .86$ ).

*Pace of social change.* Participants were asked to evaluate the pace of each change from 1 = *extremely slow* to 5 = *extremely fast* (Cronbach's  $\alpha = .87$ ).

*Social collective relative deprivation.* Participants were asked to compare Mongolians to people living in developed countries in the domains identified in Study 1. Typical comparisons for Mongolians, as assessed in a focus group prior to the present study, are Westerners, their two closest neighbors (Russians, Chinese), as well as people from developed Asian

**Table 3**  
**Correlations Among Variable and Summary**  
**of Descriptive Statistics (Study 2, Mongolia)**

	1	2	3	4	5	6	7
1. Number of social change	—	.37**	.79**	.08	.03	-.04	-.09
2. Valence of social change		—	.42**	.28**	.12	-.06	-.02
3. Pace of social change			—	.04	.10	-.10	-.12
4. Social collective relative deprivation				—	.47*	.11	.16*
5. Temporal collective relative deprivation					—	-.08	.22**
6. Collective esteem						—	-.30**
7. Social mobility							—
<i>M</i>	2.88	3.27	2.87	3.44	3.09	3.75	2.69
<i>SD</i>	.80	.62	.71	.76	.73	.61	.85
Skewness	-.16	-.61	-.13	-.30	.35	-.09	-.05
Kurtosis	-.42	1.67	-.20	.32	.15	-.51	-.52

\* $p < .05$ . \*\* $p < .01$ . (2-tailed)

countries (Japan, South Korea). The item “work” was replaced by “poverty,” as suggested by the participants in the pretest and the focus group. Answers of 1 indicated *much better* and 5 indicated *much worse* (Cronbach’s alpha = .83).

*Temporal collective relative deprivation.* Participants were asked to compare their expected future situation (5 years ahead) to that of citizens of developed countries, in terms of the domains used for social collective relative deprivation. Answers of 1 indicated *much better* and 5 indicated *much worse* (Cronbach’s alpha = .86).

*Collective esteem.* In this scale, five items evaluated collective esteem. Examples of items are: “I am proud to be a Mongolian” and “I value being Mongolian.” Answers of 1 indicated *not at all* and 5 indicated *absolutely* (Cronbach’s alpha = .75).

*Social mobility.* The first three items were derived from the work of Mummendey and her colleagues (Mummendey, Kessler, Klink, & Mielke, 1999). The six remaining items were adapted from Witt, Hilton, and Hochwarter (2001). All items were adapted to the Mongolian cultural context (e.g., “If I could, I would emigrate to another country where people are friendlier”). Answers of 1 indicated *not at all* and 5 indicated *absolutely* (Cronbach’s alpha = .89).

## Results and Discussion

### Preliminary and Regression Analyses

Preliminary analyses were conducted and showed that data were normally distributed (see Table 3). Seven participants were eliminated for lack of sufficient data. No significant

**Table 4**  
**The Interactive Effects of the Number and the Rapidity**  
**of Social Change With Valence on Collective Relative**  
**Deprivation (Study 2, Mongolia)**

	Standardized Coefficients	<i>t</i> Values	Degrees of Freedom
Number and Valence of Social Change <sup>a</sup>			
First model			
Number of social change	-.02	-.19	173
Valence of social change	.31	3.97***	173
Second model			
Number of social change	-.05	-.66	172
Valence of social change	.34	4.31***	172
Number of Social Change × Valence of Social Change	.15	1.99*	172
Pace and valence of social change <sup>b</sup>			
First model			
Pace of social change	.06	.68	167
Valence of social change	.09	1.09	167
Second model			
Pace of social change	.00	.05	166
Valence of social change	.16	1.80	166
Pace of Social Change × Valence of Social Change	.25	3.18**	166

a. Dependent variable: Social collective relative deprivation. First model:  $R^2 = .09$ ,  $F(2,173) = 8.99$ ,  $p < .001$ . Second Model:  $R^2 = .12$ ,  $F(3,172) = 7.42$ ,  $p < .001$ .

b. Dependant variable: Temporal collective relative deprivation. First model:  $R^2 = .02$ ,  $F(2,167) = 1.48$ ,  $p = .23$ . Second Model:  $R^2 = .07$ ,  $F(3,166) = 4.40$ ,  $p < .01$ .

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

outliers were found. Then the effect of the interactions between number and pace of social change and valence on both types of relative deprivation was assessed via regressions using centered variables (Baron & Kenny, 1986; Cohen, Cohen, West, & Aiken, 2003). Analyses first showed that the perceived number of change alone was not associated with social collective relative deprivation. It was only when the interaction between the valence and the number of social change was taken into consideration that the relation with social collective relative deprivation became significant. In short, similar results were obtained with a unique measure assuming an interaction between the valence and the number of social changes, as was done in the first study, or by evaluating these variables separately, as was done in this study. The more numerous and negative the social change, the stronger the feelings of social collective relative deprivation. The same pattern of results was obtained regarding pace of social change. When change is perceived to be negative and rapid, people feel frustrated when comparing their present situation to their estimated future conditions. Briefly, analyses supported the inclusion of the two interaction variables in the model (see Table 4 for results).

## Evaluation of the Model

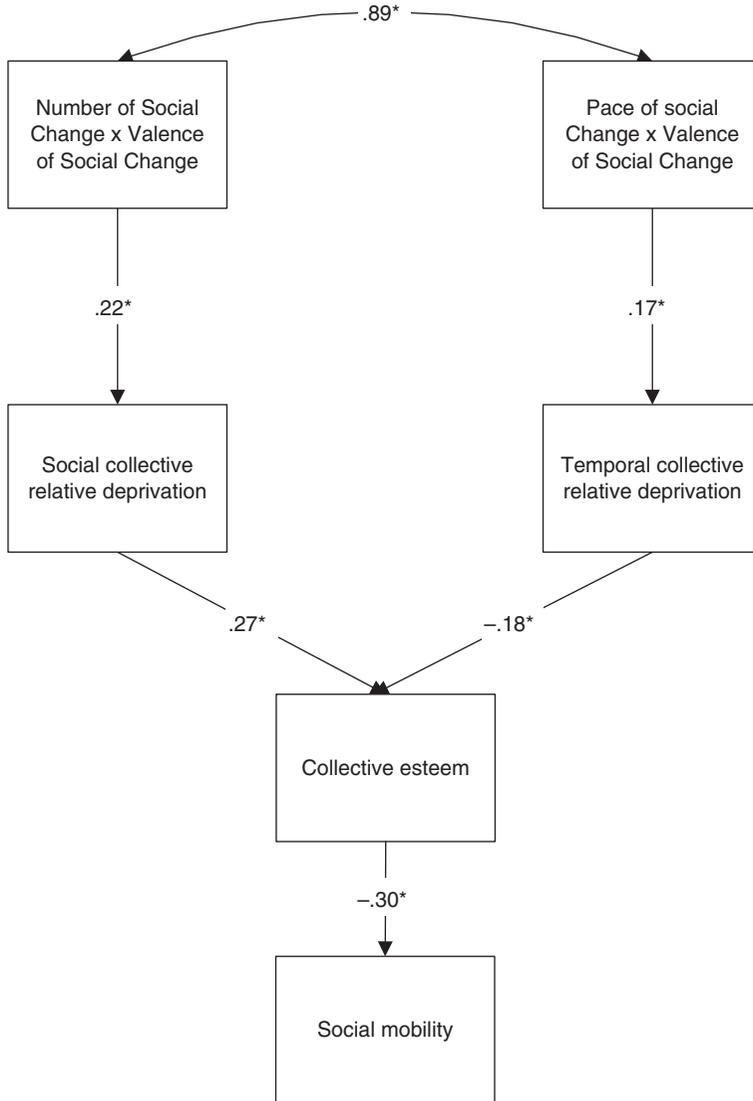
The postulated model tested via path analyses was considered inadequate,  $\chi^2(9, N = 180) = 64.86, p < .001, CFI = .86, SRMR = .12$ . Modification indices suggested improving the model by adding a correlation between residuals of the two types of relative deprivation. Such a correlation has been added in previous studies, as it was deemed logically and theoretically acceptable to link two types of relative deprivation (Beaton & Tougas, 1997). Analyses indicated that the modified model was adequate,  $\chi^2(8, N = 180) = 21.35, p = .006, CFI = .96, SRMR = .07$ . Modifications made to the initial model were significant,  $\Delta\chi^2(1) = 43.51, p < .001$ .<sup>5</sup>

The final solution, reproduced in Figure 2, shows that social change in Mongolia yielded a pattern of answers similar to those in Study 1. Indeed, Mongolians, as did Russians, reported higher feelings of social collective relative deprivation as the number of perceived negative social change increased. In terms of pace of social change, this study provided more information, as the valence was taken into consideration. It was shown that the more negative and rapid social change was perceived, the more participants expressed feelings of temporal collective relative deprivation. Congruent with the model of Study 1, temporal collective relative deprivation resulted in lowered collective esteem. It could be concluded that whether temporal collective relative deprivation is based on intra-group or inter-group comparisons, collective esteem suffers if the conditions of the in-group are expected to worsen over time.

As expected, the outcome of invidious social comparisons is contrary to the final model of Study 1 tested among Russians. Indeed, as suggested by the main assumption of Relative Deprivation Theory and research attesting to the sensitivity of collective esteem to the in-group status (Ellemers et al., 1999), the path from social collective relative deprivation to collective esteem was positive. The contrasting associations between these two concepts among Russians and Mongolians reflect the losses of the former and the gains of the latter in terms of group status. Findings suggest that the status of Mongolia allowed participants to be proud of their in-group, even if, to their dissatisfaction, their job security and health and justice systems are not actually on a par with other countries. For example, reporting being poorer than others (social comparisons) while at the same time being well perceived internationally makes Mongolians feel proud. However, if expectations for the future are bleak (temporal comparisons), their collective esteem is negatively affected, as it is the case with the Russians.

The present study also confirms the pivotal role of collective esteem in the adoption of coping strategies. Depleted collective esteem was related to social mobility and, more specifically, to favorable attitudes toward emigration. These results are congruent with previous research demonstrating that social identity is negatively related to social mobility (e.g., Mummendey et al., 1999). This finding is especially important, as it confirms the link between threat to group identity and individual responses. In short, our final model shows that when collective esteem is threatened, people are inclined to consider leaving their country. Losing citizens, and often the most entrepreneurial, in times of reconstruction can have a tremendous impact on emerging countries. This could also be a negative personal experience for those denied the possibility of fulfilling their dream of leaving their country as Western countries are gradually closing their doors to newcomers.

**Figure 2**  
**Final Model of Relations Between Social Change, Collective Relative Deprivation, Collective Esteem, and Social Mobility (Study 2, Mongolia)**



### General Discussion

When social change occurs, individuals or groups have no other choice but to adapt. The disequilibrium created by numerous and fast-paced social change challenges the adaptation capabilities of group members. The studies presented evaluated the outcomes of profound, imposed, socio-cultural change by drawing on research in sociology, in the conceptualization of social change, and in social psychology by exploring the role of both Relative

Deprivation Theory and Social Identity Theory. These two theories were thus integrated and tested in two different cultural contexts of dramatic social change.

Relative deprivation and social identity theory were shown to be relevant to the study of the reactions to profound social change. Feelings of collective relative deprivation were felt when social change was perceived to be numerous, rapid, and taking a downward turn. The link between social identity theory and relative deprivation, proposed in the 1970s (Billig, 1976), was taken a step further by evaluating the relation between two types of relative deprivation (i.e., social and temporal) and collective esteem. It was shown that collective esteem can be affected differently by social and temporal collective relative deprivation. As predicted, the studies reveal that collective esteem suffers from negative temporal comparisons. Moreover, different patterns of findings emerged in terms of the link between social collective relative deprivation and collective esteem: Whereas this link was negative among Russians, it was positive among Mongolians.

The cultural context hypothesis presented in this article suggests paying more attention to the trajectory of the group status when people are confronted with major social change. According to Grofman and Muller (1973), and in line with the J-curve rising expectation model developed by Davies (1962), feelings regarding one's group are affected by its status variations across time. For instance, if the status of the in-group has lowered, as was the case in Russia, feelings regarding one's group can be quite different from those whose group status has been rising, as was the case in Mongolia.

From a cross-cultural point of view, these differential results do inform us about differences in terms of Russian and Mongolian culture. As Taylor (2002) wrote, "Culture arises when members of a group come to share the same values, attitudes, beliefs, and behavioral patterns" (p. 44). Consequently, in a context of social change, people's perceptions about the trajectory of their group status constitute a pivotal part of their culture as they become shared beliefs about the cultural group.

Assessing people's perceptions of the trajectory of their in-group as well as of the actual group status could expand our understanding of the impact of the cultural context in the relation between social collective relative deprivation and collective esteem. Similarly, it has been found that it is essential to take into account the group's entire status trajectory when assessing the impact of relative deprivation on collective esteem (de la Sablonnière et al., in press). However, the short-term and long-term effects of social change have not been considered in terms of the relation between collective relative deprivation and collective esteem. Understanding the extent to which feelings of threat produce temporary or permanent damage to collective esteem is important in the present context.

These two studies provide a general framework suitable for evaluating the impact of profound social changes on individuals. In line with Moghaddam (2002), our research underscores the importance of moving toward a theory that integrates group and personal considerations. The present studies show that group issues matter in the reactions of people to profound societal change. Individuals from two different cultures have been shown to react to social change by expressing concerns about their actual and future group conditions.

Moreover, the study conducted in Mongolia goes further by considering the dilemma faced by citizens of countries deeply transformed as a result of major restructures: fight for one's country or flee. Indeed, we found that in the context of dramatic social change, one can easily be tempted to favor fleeing strategies. Flight is a common reaction in countries deeply affected by social restructuring as the "brain drain" is considered the most serious

problem facing countries of the former communist regime (Simanovsky, Strepetova, & Naido, 1996). More research is needed, however, to examine under which conditions one type of strategy would be favored over the other. Social Identity Theory (Tajfel & Turner, 1986) has proposed that perceived group characteristics such as permeability and stability can influence the chosen strategies. However, more research that combines both the perceived and actual exit rate is needed in different cross-cultural social change settings where the possibility of social mobility varies greatly. In the present research, we found that despite the fact that Mongolians have a low actual exit rate (The World Factbook, 2007), social mobility is seen as an option for people with low collective esteem.

It is most likely that other factors such as the strength of identification with the national group as well as its perceived importance for the self play an important role in people's reactions to social change. For instance, it would be interesting to know whether the cognitive component of social identity (in-group identification) acts as a predictor or as a consequence of collective relative deprivation.

Numerous and fast-paced societal changes could have outcomes that go beyond the individual level. Considering leaving one's country is an individual coping strategy that can undoubtedly have an impact on societies in the process of reconstruction. If social change is integral to our lives and is often requested by citizens, it is nonetheless difficult to implement without triggering resistance and negative reactions. The two studies included in this article highlight some difficulties engendered by a "too many, too fast" approach. Positive aspects of such a strategy could also be evaluated. This seems important, seeing that current political and economical conjunctures dictate fast and numerous transformations.

To date, little is known about how people adapt in the short term or long term to major social changes. And yet events such as September 11th, terrorist threats, recent wars, and major natural disasters epitomize the need for such information. As Tajfel (1972) has argued: "Ideally, the central issue of social psychology should be the study of psychological processes accompanying, determining, and determined by social change" (p. 4).

## Notes

1. Even if the situation in Mongolia has been qualified as promising (Boone, Tarvaa, Tsend, Tsendjav, & Unenburen, 1997) and Mongolians have benefited from social reforms, low standard of living and economic insecurity are nevertheless still a part and parcel of their daily life (Griffin, 2003). In fact, 36.1% of the population is living under the poverty line (The World Factbook, 2007), but it is important to note that poverty has always been a problem in Mongolia, even before the arrival of the communist regime (Nyamsuren, 1999).

2. This item was reverse-coded.

3. Confirmatory factor analysis performed for both the number,  $\chi^2(61, N = 423) = 132.81, p < .001, CFI = .94, SRMR = .05$ ; and the pace scales,  $S-B\chi^2(61, N = 423) = 98.17, p = .045, CFI = .98, SRMR = .04$ ; yielded adequate results.

4. A bootstrap technique ( $N = 1,000$ ) was performed with the Amos statistical package (Arbuckle, 1999). This analysis confirmed the stability and generalizability of the links included in the final model. In addition, an alternative model, in which the causal order of variables was inverted, was evaluated and revealed worse fits than our final model,  $\chi^2(84, N = 423) = 333.73, p < .001, CFI = .89, SRMR = .09$ .

5. In view of the limited number of participants, a bootstrap technique was conducted ( $N = 1,000$ ), and results showed that the links included in the model were stable and generalizable.

## References

- Albert, S. (1977). Temporal comparison theory. *Psychological Review*, 84, 485-503.
- Albert, S., & Sabini, J. (1974). Attributions about systems in slow vs. rapid change. *Personality and Social Psychology Bulletin*, 1, 91-93.
- Amiot, C. E., de la Sablonnière, R., Terry, D. J., & Smith, J. R. (2007). Development and integration of social identities in the self: Toward a cognitive-developmental model. *Personality and Social Psychology Review*, 11, 364-388.
- Arbuckle, J. L. (1999). *Amos* (Version 4.0) [Computer software]. Chicago: Smallwaters.
- Arbuckle, J. L., & Wothke, W. (1999). *Amos 4.0 user's guide* [Software manual]. Chicago: Smallwaters.
- Badarch, D., Batsukh, N., & Batmunkh, S. (2003). The impacts of industrialization in Mongolia. In D. Bardarch, R. A. Zilinskas, & P. J. Balint (Eds.), *Mongolia today: Science, culture, environment and development* (pp. 3-20). New York: Taylor & Francis Group.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.
- Beaton, A. M., & Tougas, F. (1997). The representation of women in management: The more, the merrier? *Personality and Social Psychology Bulletin*, 23, 773-782.
- Beaton, A. M., Tougas, F., & Joly, S. (1996). Neosexism among male managers: Is it a matter of numbers? *Journal of Applied Social Psychology*, 26, 2189-2203.
- Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, 107, 238-246.
- Billig, M. (1976). *Social psychology and intergroup relations*. London: Academic Press.
- Bollen, K. A., & Long, J. S. (1993). Introduction. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models* (pp. 1-9). Thousand Oaks, CA: Sage.
- Boone, P., & Fedorov, B. (1997). The ups and downs of Russian economic reforms. In W. T. Woo, S. Parker, & J. D. Sachs (Eds.), *Economies in transition: Comparing Asia and Eastern Europe* (pp. 161-188). Cambridge, MA: MIT Press.
- Boone, P., Tarva, B., Tsend, A., Tsendjav, E., & Unenburen, N. (1997). Mongolia's transition to a democratic market system. In W. T. Woo, S. Parker, & J. D. Sachs (Eds.), *Economies in transition: Comparing Asia and Eastern Europe* (pp. 103-129). Cambridge, MA: MIT Press.
- Breakwell, G. M. (1986). *Coping with threatened identities*. New York: Methuen.
- Breakwell, G. M. (1988). Strategies adopted when identity is threatened. *Revue Internationale de Psychologie Sociale*, 1, 189-203.
- Brown, R., & Middendorf, J. (1996). The underestimated role of temporal comparison: A test of the life-span model. *The Journal of Social Psychology*, 136, 325-331.
- Byrne, B. M. (2001). *Structural equation modeling with AMOS: Basic concepts, applications, and programming*. Mahwah, NJ: Lawrence Erlbaum.
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed.). Mahwah, NJ: Lawrence Erlbaum.
- Crosby, F. (1976). A model of egoistical relative deprivation. *Psychological Review*, 83, 85-113.
- Davies, J. C. (1962). Toward a theory of revolution. *American Sociological Review*, 27, 5-19.
- de la Sablonnière, R., Taylor, D. M., Perozzo, C., & Sadykova, N. (in press). Reconceptualizing relative deprivation in the context of dramatic social change: The challenge confronting the people of Kyrgyzstan. *European Journal of Social Psychology*.
- de la Sablonnière, R., & Tougas, F. (2008). Relative deprivation and social identity in times of dramatic social change: The case of nurses. *Journal of Applied Social Psychology*, 38, 2293-2314.
- Ellemers, N., Kortekaas, P., & Ouwerkerk, J. W. (1999). Self-categorization, commitment to the group and group self-esteem as related but distinct aspects of social identity. *European Journal of Social Psychology*, 29, 371-389.
- Encarta. (1993-1998). *Russie*. In *Encyclopédie Microsoft Encarta de luxe 99* (X03-73864XD). Redmond, WA: Microsoft Corporation.

- Folger, R. (1977). Distributive and procedural justice: Combined impact of voice and improvement on experienced inequity. *Journal of Personality and Social Psychology*, 35, 108-119.
- Folger, R. (1986). A referent cognitions theory of relative deprivation. In J. M. Olson, C. P. Herman, & M. P. Zanna (Eds.), *Ontario Symposium: Vol. 4. Relative deprivation and social comparison* (pp. 201-216). Hillsdale, NJ: Lawrence Erlbaum.
- Griffin, K. (2003). *Poverty reduction in Mongolia*. Canberra: Asian Pacific Press.
- Grofman, B. N., & Muller, E. N. (1973). The strange case of relative gratification and potential for political violence: The V-curve hypothesis. *American Political Science Review*, 57, 514-539.
- Guimond, S., & Tougas, F. (1994). Sentiments d'injustice et action collective: La théorie de la privation relative [Feelings of injustice and collective action: The relative deprivation theory]. In R. Bourhis & J.-P. Leyens (Eds.), *Stéréotypes, discrimination et relations intergroupes* (pp. 201-232). Paris: Margada.
- Gurr, T. R. (1970). *Why men rebel?* Princeton, NJ: Princeton University Press.
- Harrison, W. (1577, reedited in 1994). *The Description of England: The Classic Contemporary Account of Tudor Social Life*. New York: Dover Publications.
- Hénault, A.-M., de la Sablonnière, R., & Huberdeau, M.-E. (2009, invitation to revise and resubmit). Comparaisons sociales et comparaisons temporelles: Approche séquentielle et fonction de la situation unique. *Cahiers Internationaux de Psychologie Sociale*.
- Hobfoll, S. E., & Lilly, R. S. (1993). Resource conservation as strategy for community psychology. *Journal of Community Psychology*, 21, 128-148.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1-55.
- Jackson, J. W. (2002). Intergroup attitudes as a function of different dimensions of group identification and perceived intergroup conflict. *Self and Identity*, 1, 11-33.
- Kline, R. B. (2005). *Principles and practice of structural equation modeling* (2nd ed.). New York: Guilford.
- Luhtanen, R., & Crocker, J. (1992). A collective self-esteem scale: Self-evaluation of one's social identity. *Personality and Social Psychology Bulletin*, 18, 302-318.
- Moghaddam, F. M. (1999). Carriers and the puzzle of change: Opportunities for cross-culturalists to spearhead research in an important but neglected domain. *Cross-Cultural Psychology Bulletin*, 33, 11-31.
- Moghaddam, F. M. (2002). *The individual and society: A cultural integration*. New York: Worth.
- Moghaddam, F. M., & Crystal, D. S. (1997). Revolutions, samurai, and reductions: The paradoxes of change and continuity in Iran and Japan. *Political Psychology*, 18, 355-384.
- Moscovici, S. (1972). Society and theory in social psychology. In J. Israel & H. Tajfel (Eds.), *The context of social psychology* (pp. 17-67). London: Academic Press.
- Mummendey, A., Kessler, T., Klink, A., & Mielke, R. (1999). Strategies to cope with negative social identity: Predictions by social identity theory and relative deprivation theory. *Journal of Personality and Social Psychology*, 76, 229-245.
- Nolan, P., & Lenski, G. (1998). *Human societies: An introduction to macrosociology* (8th ed.). New York: McGraw-Hill.
- Nørgaard, O. (2000). *Economic institutions and democratic reform: A comparative analysis of post-communist countries*. Cheltenham, UK: Edward Elgar.
- Nyamsuren, T. (1999). Mongolia: In the grip of poverty. In Y. Atal (Ed.), *Poverty in transition and transition in poverty: Recent developments in Hungary, Bulgaria, Romania, Georgia, Russia, Mongolia* (pp. 223-256). Paris and New York: UNESCO and Berghahn Books.
- Parsons, T. (1964). *The social system*. London: Routledge.
- Petta, G., & Walker, I. (1992). Relative deprivation and the ethnic identity. *British Journal of Social Psychology*, 31, 285-293.
- Pettigrew, T. F. (1967). Social evaluation theory: Convergences and applications. In D. Levine (Ed.), *Nebraska symposium on motivation* (Vol. 15, pp. 241-315). Lincoln: University of Nebraska Press.
- Pirogov, G., & Pronin, S. (1999). The Russian case: Social policy concerns. In Y. Atal (Ed.), *Poverty in transition and transition in poverty: Recent developments in Hungary, Bulgaria, Romania, Georgia, Russia, Mongolia* (pp. 177-222). Paris and New York: UNESCO and Berghahn Books.
- Rocher, G. (1992). *Introduction à la sociologie générale* [Introduction to general sociology]. Ville LaSalle, Québec, Canada: Éditions Hurtubise HMH.

- Rogers, E. M. (2003). *Diffusion of innovations*. New York: Free Press.
- Runciman, W. G. (1966). *Relative deprivation and social justice: A study of attitudes to social inequality in twentieth-century England*. Berkeley: University of California Press.
- Runciman, W. G. (1968). Problems of research on relative deprivation. In H. H. Hyman & E. Singer (Eds.), *Readings in reference group theory and research* (pp. 69-76). New York: Free Press.
- Simanovsky, S., Strepetova, M. P., & Naido, Y. G. (1996). *"Brain drain" from Russia: Problems, prospects, ways of regulation*. New York: Nova Science.
- Stouffer, S. A., Suchman, E. S., DeVinney, L. C., Star, S. A., & Williams, R. M. (1949). *The American soldier: Adjustment during army life* (Vol. 1). Princeton, NJ: Princeton University Press.
- Suls, J. (1986). Social processes in relative deprivation: A life-span analysis. In J. M. Olson, C. P. Herman, & M. P. Zanna (Eds.), *Ontario symposium: Vol. 4. Relative deprivation and social comparison* (pp. 95-116). Hillsdale, NJ: Lawrence Erlbaum.
- Suls, J., & Mullen, B. (1982). From the cradle to the grave: Comparison and self-evaluation across the life-span. In J. Suls (Ed.), *Psychological perspectives on the self* (Vol. 1, pp. 97-125). Hillsdale, NJ: Lawrence Erlbaum.
- Suls, J., & Mullen, B. (1984). Social and temporal bases of self-evaluation in the elderly: Theory and evidence. *International Journal of Aging and Human Development*, 18, 111-120.
- Tajfel, H. (1972). Introduction. In J. Israel & H. Tajfel (Eds.), *The context of social psychology* (pp. 1-13). London: Academic Press.
- Tajfel, H. (1975). The exit of social mobility and the voice of social change: Notes on the social psychology of intergroup relations. *Social Science Information*, 14, 101-118.
- Tajfel, H. (1978). *Differentiation between social groups: Studies in the social psychology of intergroup relations*. London: Academic Press.
- Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behaviour. In S. Worchel & W. G. Austin (Eds.), *Psychology of intergroup relations* (pp. 7-24). Chicago: Nelson-Hall.
- Taylor, J. (2001). Russia is finished: The unstoppable descent of a once great power into social catastrophe and strategic irrelevance. *The Atlantic Monthly*, 287, 35-52.
- Taylor, D. M. (1997). The quest for collective identity: The plight of disadvantaged ethnic minorities. *Canadian Psychology*, 38, 174-190.
- Taylor, D. M. (2002). *The quest for identity*. Westport, CT: Praeger.
- Tougas, F., & Beaton, A. M. (1993). Affirmative action in the workplace: For better or for worse. *Applied Psychology: An International Review*, 42, 253-264.
- Tougas, F., & Beaton, A. M. (2002). Personal and group relative deprivation: Connecting the "I" to the "we." In I. Walker & H. J. Smith (Eds.), *Relative deprivation: Specification, development and integration* (pp. 119-135). Cambridge, UK: Cambridge University Press.
- Tougas, F., de la Sablonnière, R., Lagacé, M., & Kocum, L. (2003). Intrusiveness of minorities: Growing pains for the majority group? *Journal of Applied Social Psychology*, 33, 283-298.
- Tougas, F., & Veilleux, F. (1988). The influence of identification, collective relative deprivation, and procedure of implementation on women's response to affirmative action: A causal modeling approach. *Canadian Journal of Behavioral Science*, 20, 15-28.
- Walker, I. (1999). The effects of personal and group relative deprivation on personal and collective self-esteem. *Group Processes and Intergroup Relations*, 2, 365-380.
- Walker, I., & Pettigrew, T. F. (1984). Relative deprivation theory: An overview and conceptual critique. *British Journal of Social Psychology*, 23, 301-310.
- Witt, L. A., Hilton, T. F., & Hochwarter, W. A. (2001). Addressing politics in matrix teams. *Group & Organization Management*, 26, 230-247.
- The World Factbook. (2007). *Mongolia*. Retrieved April 19, 2007, from <https://www.cia.gov/cia/publications/factbook/geos/mg.html>
- Woo, W. T., Parker, S., & Sachs, J. D. (1997). *Economies in transition: Comparing Asia and Eastern Europe*. Cambridge, MA: MIT Press.
- Wright, S. C., Taylor, D. M., & Moghaddam, F. M. (1990). Responding to membership in a disadvantaged group: From acceptance to collective protest. *Journal of Personality and Social Psychology*, 58, 994-1003.

Zagefka, H., & Brown, R. (2005). Comparisons and perceived deprivation in ethnic minority settings. *Personality and Social Psychology Bulletin, 31*, 467-482.

Zuck, A. M. (1997). Introduction. *American Behavioral Scientist, 40*, 257-258.

**Roxane de la Sablonnière** is an assistant professor in psychology at Université de Montréal. Her research focuses on the challenges people confront when they face dramatic social change, such as the Inuit of Québec, and places such as Mongolia, Russia, Kyrgyzstan, South Africa. Her theorizing involves reconceptualizing relative deprivation theory and understanding the processes associated with the integration of new cultural identities into the self-concept.

**Francine Tougas** is a professor at the School of Psychology at the University of Ottawa, Canada. She has devoted her research to the antecedents and consequences of relative deprivation. Current research involves the investigation of the link between relative deprivation, psychological disengagement, and self-esteem.

**Monique Lortie-Lussier** received her PhD in social psychology from the University of Montréal. She is now an adjunct professor at the University of Ottawa. Her research interests concern intergroup relations, minority influence, and the career of women in management. She was associate editor of *Applied Psychology: An International Review*, from 1986 to 2006.