

COVID-19
Canada



THE END OF THE WORLD
AS WE KNOW IT?

RESEARCH REPORT N° 11

MEASURING THE IMPACTS OF DRAMATIC SOCIAL CHANGE:
HOW DID THE COVID-19 CRISIS IMPACT NEGATIVE
EMOTIONS FELT BY CANADIANS?

THIS RESEARCH REPORT IS INTENDED FOR
POLICY MAKERS AND THE GENERAL PUBLIC

THE PROJECT IS FINANCED BY THE CANADIAN
INSTITUTES OF HEALTH RESEARCH (CIHR)

Abstract

Major events such as hurricanes, coups, or the COVID-19 crisis have the potential to cause widespread dramatic social change (DSC). This form of rapid and profound change is associated with negative impacts on society as a whole and on individuals. However, because the study of DSC and its impacts was scientifically neglected until the COVID-19 crisis, our understanding of DSC is limited. The present report addresses three objectives. First, based on a large longitudinal survey of 3,617 Canadians, we will track perceptions of DSC from the onset of the COVID-19 crisis in April 2020 through December 2020. Second, we explore the link between DSC perceptions and an objective indicator of the magnitude of the COVID-19 crisis: the actual number of COVID-19 cases. Finally, we examine the link between DSC perceptions and the prevalence of negative emotions, a key indicator of mental health.

Table 1. Definitions of the characteristics of dramatic social change

Characteristics	Definitions	Examples
Pace of change	The speed at which an event affects a community at a given time.	<ul style="list-style-type: none"> - Global warming (slow) - The implementation of the lockdown during the first wave of the pandemic (fast)
Rupture of the social structure	A break with the past so that fundamental aspects of society as well as social structures must be rebuilt.	<ul style="list-style-type: none"> - A change of regime following a coup d'état - Reduction in hospital operation rate due to the pandemic
Rupture of the normative structure	A break with the past so that fundamental aspects of the behaviours of group members need to be significantly altered in order to achieve collective goals at a given time.	<ul style="list-style-type: none"> - Sudden changes in behaviours to obtain food, for example, in a context of inflation - Sudden change in behaviours during a pandemic (wearing a mask, social distancing, telecommuting)
Threat to cultural identity	Serious threat to the identification and clarity of shared beliefs, values and attitudes which define the cultural identity of a group at a given time.	<ul style="list-style-type: none"> - The extinction of certain languages due to colonization and globalization - Questioning personal and collective values in the context of a pandemic (e.g., how important is the value of cooperation to the individual and the community?)



Research context

The COVID-19 crisis is generating unprecedented social tensions that are having a significant impact on economic, social and political institutions. People had to suddenly change their daily behaviours to conform to a government-imposed lock down. For example, more than a million Canadians stopped going to work as they lost their jobs within a month and young people had to stay at home as schools closed for several weeks.

In order to be considered a dramatic social change, an event must be rapid, cause a breakdown in social structures (e.g., institutions) and normative structures (e.g., people's behaviors), and represent a threat to cultural identity (de la Sablonnière, 2017; Table 1 and 2). Dramatic social change causes a break with the past, so that the community loses its bearings and must reorganize. However, the rapidity of this type of change means that it exceeds the adaptive capacities of society, and thus can cause long-term damage to individuals, as well as institutions.

Research objectives

- 1) Our first objective is to understand Canadians' perceptions of social change. Specifically, we track the extent to which Canadians perceive dramatic social changes and at what points during the crisis are the perceptions of DSC the strongest?
- 2) Our second objective is to link perceptions of DSC to an objective indicator of the magnitude of the COVID-19 crisis: the actual number of confirmed COVID cases in Canada.
- 3) Our third objective is to examine the impact of perceptions of DSC on the emotions experienced by Canadians. Because emotions are a key indicator of mental health and well-being (Berking et al. 2012), it is critical to understand whether there is a link between emotional well-being and a social crisis such as the COVID-19 pandemic.

Hypotheses

- 1) Knowing that perceptions of DSC vary over time, it is expected that individuals will perceive DSC more strongly in the first as well as in the second wave of the pandemic, and thus in the periods when government mandates were most restrictive throughout the crisis.
- 2) As the number of new infections increases, individuals will perceive that their society is undergoing dramatic social change.
- 3) The more individuals perceive that their society is in a state of dramatic social change, the more negative emotions they will report experiencing.



Methodology

Data were extracted from a large survey which asked a representative sample of Canadians (N=3617) to complete an in-depth questionnaire on multiple occasions over several months. For more methodological details, please consult our technical report (de la Sablonnière et al., 2020).

First, we estimated, for each week of the crisis, the average perceptions of social change and emotions felt by the population. When placed on a timeline, these averages allow us to observe the fluctuation of these perceptions over time (figures 1 and 2). Because of the time between each measurement wave, some weeks do not have enough data (N<30) to represent a valid estimate of perceptions. Therefore, the means associated with weeks 18-19, 23-24, and 28-33 (for which we had insufficient data) are estimated based on the weeks before and after them. Then, we measured the individual perceptions of social change and compared them to the emotions felt by the population at each wave of the survey using a Pearson correlation. This allowed us to establish the stability and strength of the correlation between DSC and negative emotions over time.

To evaluate the extent to which participants perceived DSC throughout the crisis, we used the Social Change Algorithm (SCA). The SCA is a modeling tool based on the theory presented in Table 1, which allows us to visualize societal states and their transition in a context where an event, such as COVID-19, occurs. This tool detects the prevalence of dramatic social change based on individuals' perceptions. More specifically, we asked a total of 9 questions (Appendix 1) at all measurement times about perceptions related to each of the four social change characteristics: the pace of change, the rupture in the normative/social structure and the threat to cultural identity (Table 2). Responses to these questions were fed to the SCA which was then able to evaluate the level of dramatic social change perceived by each participant at each wave of the survey with a score ranging from 0 to 10 where 10 represents high perception of DSC. Using the SCA, we were able to identify times when participants perceived more dramatic social change since April 2020. In the survey, we also measured 11 distinct emotions at each of the 10 waves. These emotions fall into 3 categories: anger (anger, annoyance, frustration), anxiety (helplessness, fear, nervousness, sadness, worry), and loneliness (boredom, solitude).

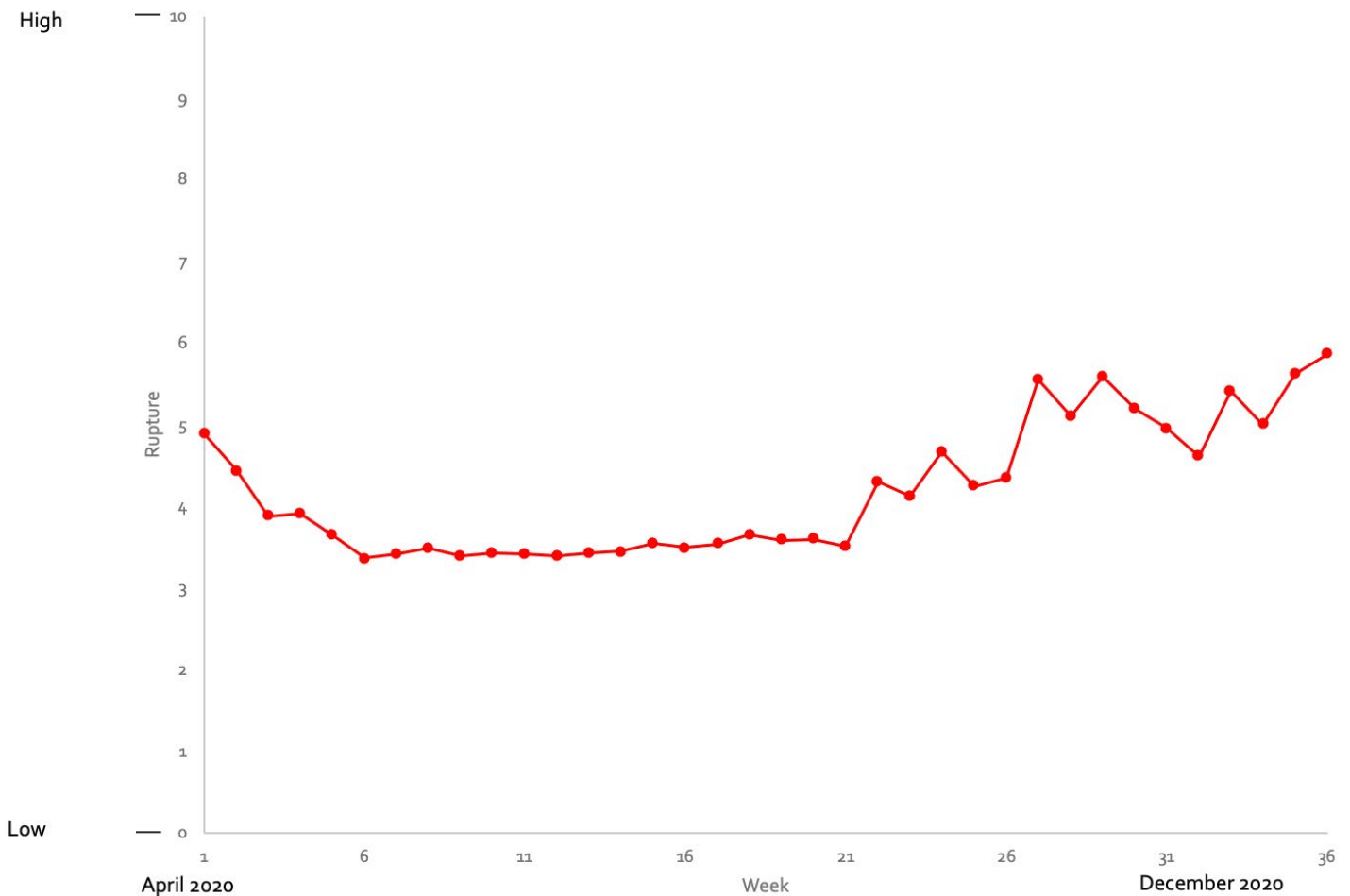
To examine the link between Canadians' perception of DSC and the number of COVID-19 cases, we extracted weekly averages of cases from the CTV News website ("Tracking every case of COVID-19 in Canada", 2021).



Results

Hypothesis 1. Hypothesis 1 was corroborated. DSC perceptions (high levels of rupture) from the beginning of the crisis, April 6, 2020 through the end of December, vary across time (Figure 1). Indeed, we observe a peak in DSC perceptions at the beginning of the crisis (April 2020). We then observe a decrease in perceptions of DSC during the summer (beginning of June to end of August 2020) and then a resurgence of DSC perceptions in the second wave of the pandemic (September to December 2020).

1. Indicator of perceived social change over time

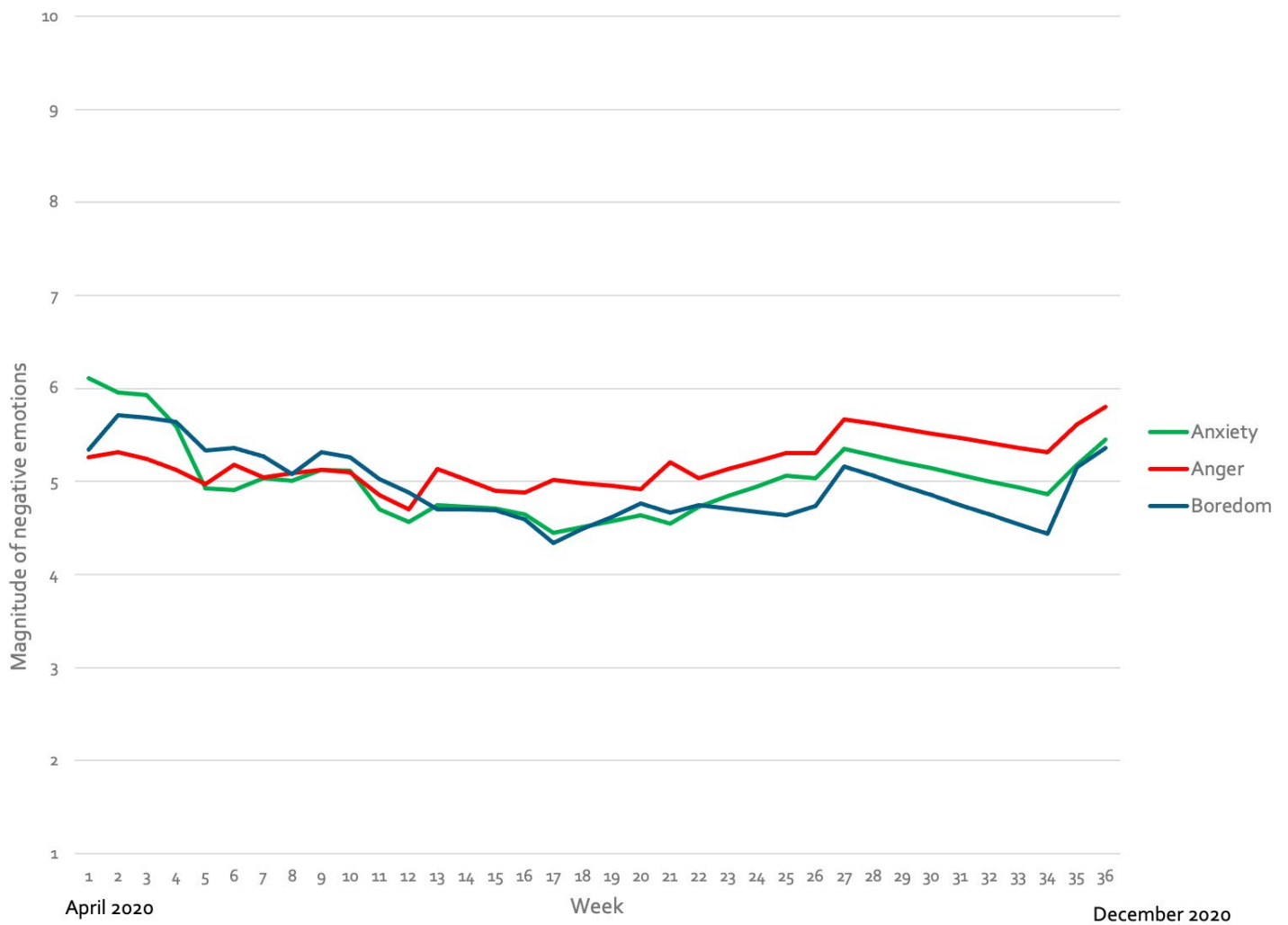


Hypothesis 2. Hypothesis 2 was corroborated. Periods of dramatic social change coincided significantly with the number of weekly cases ($r = .77$). Thus, the more daily infections, the more Canadians perceive DSC. This confirms that subjective perceptions of DSC are a reliable representation of the objective reality of a crisis. That is, the public perceives and feels the changes that are taking place in their community.



Hypothesis 3. Hypothesis 3 was corroborated. Dramatic social change correlated positively with anger ($r = .27$), anxiety ($r = .23$) and loneliness ($r = .18$), although the correlations were weak to medium. This means that people who perceived high amounts of DSC during the pandemic also felt high levels of anger, anxiety and loneliness.

2. Magnitude of negative emotions felt over time



Conclusion

Canadians perceived dramatic social change during the COVID-19 crisis. When resources are not mobilized to prevent DSC's negative impacts on society, this societal state leads to collective trauma, a form of community trauma that affects all individuals in a society. Since it appears that the consequences of the pandemic will be long term (Deloitte, 2020), it will be necessary to work to restore the societal balance that has been destabilized by a period of DSC.

The results of this research also demonstrate that DSC is related to a greater prevalence of negative emotions. Thus, it appears that periods of DSC may pose a serious risk to collective mental health. This is of particular concern for those at risk for, or already struggling with, mental health disorders, for whom DSC may exacerbate the symptoms and negative consequences of these disorders.

It is important to note, however, that the results found are only correlations and not causal relationships. Thus, we cannot conclude that the observed prevalence of negative emotions is due to the perception of dramatic social changes.

Implications

In light of the results obtained from the confirmation of hypotheses 2 and 3, we recommend that governments adopt measures to mitigate the emotional impact of a crisis such as COVID.19

1) Promote rapid action plans to foster mental health in times of crisis: As we have seen, the emotional impact of crises manifests rapidly in the presence of dramatic social change. It is therefore recommended to implement mental health impact mitigation measures as soon as a crisis involving dramatic social change occurs.

2) Promote collective interventions to respond to a collective problem: Considering the difficulty of implementing individual interventions with the entire affected population, it is recommended to prioritize collective interventions which rely on a community approach and promote collective resilience.



Collaborators

Vincent Turcotte-Ménard
Master's student
Department of Psychology
Université de Montréal

Éloïse Côté
Ph.D. student
Department of Psychology
University of Toronto

Alexandrine Nadeau
Master's student
Department of Societies, Territories and Development
Université du Québec à Rimouski

To cite this research report

Turcotte-Ménard, V., Côté, É., Nadeau, A., Pelletier-Dumas, M., Dorfman, A., Lacourse, É., Lina, J. M., Stolle, D., & de la Sablonnière, R. (2023). COVID-19 Canada: The end of the world as we know it? (Research Report No. 11). Measuring the impact of dramatic social change: How did the COVID-19 crisis impact the negative emotions felt by Canadians? University of Montreal.

References

Angus Reid Institute. (2021). Trudeau Tracker. <http://angusreid.org/trudeau-tracker/>

Berking, M., & Wupperman, P. (2012). Emotion regulation and mental health: recent findings, current challenges, and future directions. *Current opinion in psychiatry*, 25(2), 128–134. <https://doi.org/10.1097/YCO.0b013e3283503669>

CTVNews.ca. (2021, November 11). Tracking every case of covid-19 in Canada. Coronavirus. Retrieved November 11, 2021, from <https://www.ctvnews.ca/health/coronavirus/tracking-every-case-of-covid-19-in-canada-1.4852102>.

de la Sablonnière, R. (2017). Toward a psychology of social change: A typology of social change. *Frontiers in Psychology*, 8, Article 397.

Deloitte. (2020). Découvrir la partie cachée de l'iceberg : pourquoi les conséquences humaines de la COVID-19 pourraient créer une troisième crise. <https://www2.deloitte.com/content/dam/Deloitte/ca/Documents/about-deloitte/ca-covid19-human-impact-pov-fr-aoda.pdf>

To visit our website

<https://csdc-cecd.wixsite.com/covid19csi>



RESEARCH TEAM

Principal investigator



Roxane de la Sablonnière, Ph.D.

Full professor
Department of Psychology
University of Montreal

Director and founder of the Social Change and Identity Laboratory since 2005, Roxane studies the challenges people face when they are exposed to dramatic social change, such as the colonization that affected Canada's Aboriginal peoples or immigration.



Anna Dorfman, Ph.D.

Assistant Professor
Department of Psychology
Bar Ilan University

A behavioural researcher interested in decision-making processes, Anna focuses on the interactions between emotions, cognitions and behaviours in order to understand how individuals react when faced with difficult social situations.



Eric Lacourse, Ph.D.

Full Professor, Senior methodologist
Department of Sociology
University of Montreal

Éric Lacourse is a full professor in the Department of Sociology at the University of Montreal. He is currently responsible for the bi-disciplinary baccalaureate in psychology and sociology and formerly director of the microprogram in social statistics.

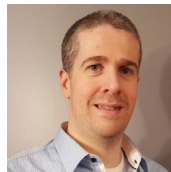
Team members



Jean-Marc Lina, Ph.D.

Professor
Department of Electrical Engineering
École de technologie supérieure de Montréal

Jean-Marc is the founder and director of the PhysNum laboratory, as well as a researcher at the Center for Advanced Research in Sleep Medicine of the Hôpital du Sacré-Cœur. He studies the dynamics of complex systems including rhythms in social psychology.



Mathieu Pelletier-Dumas, Ph.D.

Senior research advisor
Department of Psychology
University of Montreal

A social psychology researcher in the Social Change and Identity Laboratory, Mathieu is interested in the profound changes that people face (social and personal changes), in identity, and in negative behaviours (discrimination, prejudice, disruptive behaviours in video games).



Dietlind Stolle, Ph.D.

James McGill Professor
Department of Political Science
McGill University

Dietlind has directed the Centre for the Study of Democratic Citizenship. She is an expert on trust, social capital, ethnic diversity, attitudinal democratic backsliding and new forms of political participation.



Partners



CIHR IRSC

