Positive behavioral change during the COVID-19 crisis: The role of optimism and collective resilience

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Abstract
While the issue of behavioral change is of increasing interest to academics and practitioners, an understanding of its drivers remains limited. Consistent with the possibility that destabilizing events can trigger the implementation of beneficial changes in one's life, this research studies the COVID-19 pandemic and its influence on the adoption of positive habits. More specifically, it focuses on positive health and lifestyle-related behavioral changes observed within the confined population, as well as the antecedents of such changes. Two surveys conducted 1 month apart in an urban setting severely affected by the pandemic confirm the role of optimism toward the crisis as an antecedent to four changes: slowdown in pace of life, decluttering of personal space, reflection on consumption habits and adoption of healthy behaviors. Collective resilience, social support and anxiety are identified as determinants of optimism. Results suggest an evolution of certain relations including the increase of collective resilience effect on optimism over time.

1 INTRODUCTION

For several years, the question of behavioral change has preoccupied academics and practitioners across disciplines (e.g., Austin & Kwapisz, 2017; Griskevicius et al., 2012). While citizens have been asked on several levels to improve certain behaviors— notably, physical activity practices, healthier food choices, more responsible consumption or smarter financial choices (e.g., Cadario & Chandon, 2020; Parkinson et al., 2017; Spader et al., 2009)—in practice, to change one's habits is a big challenge, and initiatives often show disappointing results (e.g., Brawley et al., 2003; Grier et al., 2007). However, it appears that the drastic changes of contexts such as a crisis situation may be favorable for behavioral modifications (Harper et al., 2007). On March 11, 2020, such a crisis began, when the World Health Organization qualified COVID-19 as a global pandemic. Several countries implemented measures to limit the spread of the virus, including border shutdowns, school and business closures and social distancing (Wamsley, 2020). The mandatory confinement created a new reality and changed the way many people lived as they found themselves isolated in their home and deprived of social relations (Wright, 2020). While the COVID-19 situation is concerning at various levels, many individuals tried to make the best of the situation and change their habits in a positive way. Some seized the moment to prioritize a healthier lifestyle, including a balanced diet and increased exercise (Charm et al., 2020; Pinsker, 2020; Rontto, 2021). Others considered this period as a time to slow down and reflect on the pace of their life, priorities, and values (Matei, 2020; Miller, 2020; Nielsen Alimentation, 2020; Rosenbloom, 2020). These changes do not happen by chance, given that drastic context transformations, such as those brought on by the current pandemic, are conducive to the establishment of new habits (White et al., 2019).

This article aims to bring a new perspective to the challenge of behavioral change by focusing on the specific pandemic context and its ability to positively transform existing habits. More specifically, this research examines the positive behavioral changes observed among the confined population of a large city and the antecedents of such changes. It looks at the role of optimism as a driver of change and at the effects of collective resilience, social support and personal anxiety on this optimism. It also explores the evolution of the changes and relations via two online surveys among 1009 citizens from Montreal a month and 2 months after the start of the implementation of measures by the authorities. Montreal was selected as this urban setting was severely affected by the pandemic and for which severe confinement measures...
were implemented such as school closures, interdiction of gathering, closure of all non-essential businesses, and mandatory teleworking (Lindeman, 2020), making this city a relevant context for the study. Results confirm the role of social support, personal anxiety, and collective resilience on optimism toward the crisis as well as the influence of this optimism on behavioral changes. They suggest a variation in time of the relative weight of optimism’s antecedents.

This article offers several contributions to the literature on behavioral change. First, it reveals the positive influence of optimism on behavioral change. More specifically, it expands the current understanding of this psychological trait—and its antecedents—demonstrating that optimism is a driver for the adoption of positive habits related to a healthy lifestyle. While it has been demonstrated that optimism is related to several positive consequences, such as overall well-being and longevity (Chopik et al., 2015), and that it influences one’s ability to overcome individual challenges (Carver et al., 2010; Scheier & Carver, 1985; Taylor et al., 1992), this article highlights its positive role in a global crisis. Interestingly, in such a context, results indicate that collective resilience has an important influence on leveraging the optimism felt toward the crisis, and ultimately the positive changes implemented in one’s life. Second, this article provides a new understanding of the impacts of the current pandemic by focusing on certain positive individual and societal outcomes, thus distinguishing itself from other recent studies on the subject (Bäuerle et al., 2020; Huang & Zhao, 2020). It emphasizes the importance of facilitating factors (social support) and aggravating factors (anxiety) in the crisis context to promoting the individual and collective capacity to take advantage of circumstances of drastic change. In addition, by examining variables tied to individual and societal well-being (Chopik et al., 2015), this study contributes to transformative consumer research (Mick, 2006) and the understanding of some of the drivers of consumer well-being. Relatedly, this research provides rich and useful insights that can be used in the design of behavioral change initiatives such as social marketing campaigns or public policy interventions. In sum, considering that the incorporation of positive and healthy habits in society is associated with positive economic and social benefits (Chopik et al., 2015), this research offers a significant contribution in this regard.

This article is organized as follows: A literature review on behavioral change, optimism and its antecedents culminates in a series of four hypotheses pertaining to the positive effect of optimism on four habit changes during the pandemic, and other related assertions. The two studies conducted (1 month apart after the start of the COVID-19 crisis) are then presented and the hypotheses are tested. The article ends with a discussion of the results, the article’s contributions and possibilities for future research.

2 | LITERATURE REVIEW AND HYPOTHESES

2.1 | Habit change

Habit change is an issue of interest across literatures (Austin & Kwapisz, 2017; Griskevicius et al., 2012; Verplanken & Wood, 2006). Research indicates that despite people’s intentions to change or improve certain behaviors, preexisting behaviors tend to rapidly return (Verplanken & Wood, 2006; Wood et al., 2002). Interestingly, drastic context changes may be conducive to the development of new behaviors (Cohen, 2020). When humans lose their reference points, it may lead to the emergence of new habits (Parise, 2020). This occurs because several behaviors are learned and performed in stable circumstances and known contexts. A disruption of such contexts opens the door to new potential mechanisms (Wood et al., 2005). Studies which focused on the effects of traumatic incidents have confirmed that these incidents are a positive driver of change (Harper et al., 2007). For example, patients who suffered from cancer bounced back from this ordeal and established new habits, both physically (e.g., physical activity) and psychologically (e.g., becoming closer to their family). Studies confirm that such events may be the tipping point toward re-prioritizing and implementing better habits (Aspinwall & MacNamara, 2005; Harper et al., 2007). Furthermore, research indicates that stressful events can fuel increased motivation for change and induce a positive turn in one’s life (Harper et al., 2007). Relatively, according to the habit discontinuity hypothesis, a disruption in a stable context represents an ideal condition for new habits to be implemented, as the references associated with the old habits are no longer accessible (Verplanken & Roy, 2016). This explains why people are, for example, more likely to adopt environmentally responsible behaviors following a move to a new city (Verplanken & Roy, 2016). Thus, habits are not based on intentions but on environmental cues and changing one’s environment is a powerful determinant of habit change (White et al., 2019).

2.2 | Crisis consumption and positive habits

Crisis situations lead to changes in our consumption behavior, mostly in the products we buy but also in the ways we consume. These effects vary according to the type of crisis. For example, in situations of economic crisis, consumers tend to decrease their overall consumption expenditures and limit non-essential or superfluous purchases (e.g., Alonso et al., 2017; Faganel, 2011; Ozdamar Ertekin et al., 2020), favor certain types of discount and second-hand retailers and increase the variety of types of retailers frequented in search of savings (McKenzie & Schargrodsky, 2005). Other crises, however, have different effects, especially in the case of natural disasters, when consumers compensate for the unpleasant situation through impulse purchases (Kennett-Hensel et al., 2012) and other consumption choices that evoke positive emotions. Similarly, the current pandemic context is marked by a total break in people’s regular habits (Parise, 2020) and new forms of consumptions have emerged. With regard to the COVID-19 crisis, a few academic articles provide an initial picture of consumption changes: results propose that in this particular context, consumers opted more for online shopping (Sheth, 2020), made more panic or unusual purchases (Hall et al., 2020; Laato et al., 2020), sought refuge in safe and comforting product choices (Eftimov et al., 2020) as well as cleaning products to feel protected (Cambefort, 2020). Hoarding behaviors—accumulating large quantities of goods...
due to a perceived risk of shortage—have also been observed (Kirk & Rifkin, 2020).

Beyond the influence on consumption choices, this contextual destabilization drove some to question and rethink their habits as their daily lives have been modified in unprecedented ways. Individuals’ habits and routines have indeed drastically changed, forcing new habits to emerge and old ones to recede (Ding et al., 2020; Huber et al., 2021). Several studies suggest that this pandemic is motivating behavioral changes. More specifically, there is recent evidence that individuals have modified specific habits such as a shift to a healthier lifestyle including increased exercise and improved diet (Chiu et al., 2021; Ranasinghe et al., 2020), a simplified personal space and a need to declutter (Liu et al., 2021; Sandlin & Wallin, 2021), a need to slow down the pace of one's life (Ertz, 2020; Everingham & Chassagne, 2020), as well as a reflection on one's consumption habits and relation to consumption (Kang et al., 2021; Kirk & Rifkin, 2020). These behavioral changes can be explained by consumers focusing on the essentials and aspiring to reduce their level of consumption in a situation of uncertainty (Gordon-Wilson, 2022), and by consumers being more sensitive to responsibility and sustainability in their consumption choices following a crisis (Faganel, 2011). Accordingly, drawing from preliminary research evaluating the impact of the current pandemic on forming new habits, this study focuses on four behavioral changes: adopting healthy behaviors (e.g., Chiu et al., 2021), decluttering one’s personal space (e.g., Sandlin & Wallin, 2021), slowing down the pace of one’s life (e.g., Everingham & Chassagne, 2020), and reflecting on one's consumption habits (e.g., Kirk & Rifkin, 2020). Interestingly, these changes pertain to improvements in one's physical and psychological states, which are known for their positive impacts on societal well-being and general satisfaction with life (Ferguson & Goodwin, 2010).

2.3 | The role of optimism

Personal optimism is defined as a tendency to expect positive versus negative life outcomes (Robinson-Whelen et al., 1997). Optimism plays an important role in a person’s positive transformations, namely for patients who suffered from serious illnesses (Allison et al., 2000; Mulakana & Hailey, 2001; Shepperd et al., 1996), and appears linked to the ability to develop healthier life habits (Ylöstalo et al., 2003) and sustainable choices (Mahmoodi et al., 2021). Given that optimists have more favorable expectations toward future events, they are more likely to engage in positive behavior changes—both physically and mentally—after a trying event (Scheier & Carver, 1985). Optimistic individuals recover more rapidly after a major life event and show increased adoption of healthy habits following such an event (Kivimäki et al., 2005; Shepperd et al., 1996). Several studies report that optimism is related to superior mental and physical health and that it plays a motivating role when facing a crisis (Giltnet al., 2007; Tindel et al., 2009).

Optimism allows people to better manage and overcome difficult situations as well as to transform them into positive results (Carver et al., 2010; Scheier & Carver, 1985; Taylor et al., 1992). More specifically, optimistic people are better able to manage stressful events given their adaptive coping style (Carver et al., 1999). When optimists face a crisis, they can adapt to this reality and take advantage of it (Moos & Schaefer, 1993). From this perspective, optimism shares similarities with the locus of control—that is, one’s assumptions about one’s control over life events and one’s perceived ability to influence the course of his life (Findley & Cooper, 1983; Peacock & Wong, 1996). Such similarities have been recognized in the literature, notably regarding how optimistic individuals as well as people with internal control beliefs are able to cope with stressful events and positively adapt to difficult situations (e.g., Lefcourt, 1980; Scheier & Carver, 1987). Interestingly, internal locus of control has been related to the adoption of health-related as well as environment-related behaviors (Cobb-Clark et al., 2014; Pavalachille & Unianu, 2012). Applied to the current situation, optimism appears to be linked to the way in which a person transforms the crisis into positive results.

Hypothesis 1. The level of optimism toward the crisis is positively related to positive behavioral changes, such as: H1a) adopting healthy behaviors; H2b) decluttering one’s personal space; H3c) slowing down the pace of one’s life and H4d) reflecting on one’s personal consumption habits.

2.4 | Determinants of personal optimism

2.4.1 | Social support

Social support is the belief that the support of loved ones is available if necessary (Procidano & Heller, 1983). More specifically, it can be defined as a multidimensional construct that taps into both the support concretely received (informative, emotional, and instrumental) and the support’s sources (e.g., friends, family, strangers, and animals; Dumont & Provost, 1999). Social support is relevant in the current pandemic context as it constitutes a central resource in understanding people’s adaptation in a crisis situation (Ekas et al., 2010; Tedeschi & Calhoun, 2004). Social support is described as a protective factor that alleviates the effects of a stressful situation on individuals (Dumont & Provost, 1999) through its ability to reduce loneliness (Prati & Pietrantoni, 2009). Mandatory confinement due to the COVID-19 situation has raised concerns about isolation and the mental challenges related to it (Ganesan et al., 2021). Social support is related to one’s general satisfaction with life and to a positive state of mind (Jones et al., 2003; Zhu et al., 2013). It has been linked to perseverance, hope for positive outcomes (Paria, 2008), and optimism (Beauregard & Dumont, 1996; Dougall et al., 2001). Furthermore, supporting relationships have been related to people’s overall optimism (Kivimäki et al., 2005). Social support has also been associated with high self-esteem, which in turn was shown to increase optimism in people facing chronic illness (Symister & Friend, 2003).
Relatedly, social support provides individuals with a positive context for experiencing stressful situations (Bettstchart et al., 1992). As such, this support appears to influence one’s ability to get through the current crisis, and more specifically, appears to be linked to optimism about the crisis.

Hypothesis 2. Social support is positively linked to optimism toward the crisis.

### 2.4.2 Anxiety

Personal anxiety is defined as a state of tension, nervousness, apprehension and great concern (Spielberger, 1983). While dispositional anxiety refers to a personality trait, situational anxiety—considered in this research—relates to a specific context (Zheng, 2008). The current pandemic is a major stress factor characterized by uncertainty and a high anxiety level (Bavel et al., 2020). For example, more than a third of Americans have reported pandemic-related anxiety (Twenge & Joiner, 2020), and the number of Canadians experiencing high levels of anxiety has quadrupled since the pandemic began (Pollara, 2020). In addition, recent academic work confirms that the pandemic significantly affects mental health through its influence on generalized anxiety (Bäuerle et al., 2020; Huang & Zhao, 2020).

Studies suggest that greater anxiety is linked to lower levels of optimism (Wang et al., 2017; Zenger et al., 2010). Moreover, anxiety is linked to the anticipation of future events perceived as dangerous (Spielberger, 1983). Consistently, anxiety in a pandemic context would reduce the probability of believing in a positive outcome, the latter underpinning optimism (Scheier & Carver, 1985). Anxiety has a paralyzing influence and leads one to believe that the worst could happen (Palazzolo, 2019), thus negatively impacting one’s optimism.

Hypothesis 3. Anxiety is negatively related to optimism toward a crisis.

### 2.5 The role of collective resilience

Collective resilience consists in a group’s ability to overcome challenges and difficulties (Lyons et al., 2016). The union spirit that stems from difficult situations illustrates this resilience (Drury et al., 2009). This group strength and its beneficial role have been studied in various crisis contexts (e.g., natural disasters, terrorist attacks) (Aguirre, 2005). Thus, group spirit and unity emerge naturally in crisis situations as a powerful form of collective resilience (Ntontis et al., 2018). Collective resilience is equally associated with cooperation and collaboration in crisis situations (Kendra & Wachtendorf, 2003; Tierney, 2002).

The current crisis helps to highlight this collective solidarity (Brillon, 2020). Mutual support groups and collaborative movements started throughout the countries affected. Several political leaders relied on this resilience in their communications (“The most important collective battle of our lives,” François Legault, Quebec Premier; Laforest & Warren, 2020). The perception of individuals that their fellow citizens are united against the crisis, and that the sum of individual efforts will be fruitful is likely to influence their optimism. Moreover, collective resilience is linked to the ability to see things in a positive light, in other words, optimism (Smith et al., 2008; Yeager & Dweck, 2012). Affiliation to a group has a positive impact on the way events are perceived (Sime, 1983), and allows individuals to believe in their ability to reach their goals (Lyons et al., 2016; Williams & Drury, 2009). This leads to the following hypothesis.

Hypothesis 4. Collective resilience is positively related to optimism toward the crisis.

### 3 METHODS

Participants were recruited through an online panel by an established research firm. This panel, representative of the Canadian population, is made up of members solicited by email to respond to online questionnaires (if the survey profile sought matches the member’s profile), in exchange for participation in a quarterly draw (Bourbonnais, 2019). For this study, two invitation links were sent to the panel’s members: one on April 15 (a month after the start of the measures), the other on May 15, 2020 (2 months after the start of the measures). A total of 493 participants completed the first survey (a month after the start of the measures; April 15, 2020) and 516 participants completed the second survey, for a total of 1009 participants. For both surveys, participants who did not fully complete the survey were eliminated. The survey was administrated in French or English following participants’ choice of preferred language. It is important to note that these two data sets were collected during a period of strict confinement for the population. Social contact and transportation were strictly limited (e.g., schools closed, distance learning in universities, businesses closed or reduced to remote work only). To be admissible, participants had to be 18 years or older, live in the greater Montreal area, be a member of the research firm’s panel and accept to participate in the survey. Montreal city was selected for this study because of the strict lockdown measures put forward by the government and because this urban setting was hit harder by COVID-19 than other regions of the province and other similar international cities (Lepage, 2020; Lindeman, 2020). Furthermore, by asking participants about habits adopted during the last month, this study covers a period of 8 weeks (4 weeks prior to first survey on March 15 and 4 weeks prior to second survey on April 15). As it is generally accepted in the literature that 8 weeks are required to form a new habit (e.g., Duhigg, 2012; Lally et al., 2007; Lally et al., 2009), this period was deemed appropriate to observe the formation and maintenance of new habits. It is important to note that although participants in each phase are not the same individuals, they were selected from a panel representative of the Canadian population, and they further display similar characteristics across all sociodemographic variables when comparing both periods (i.e., month 1 and month 2). Respondents’ sociodemographic profile is provided in Table 1.

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Measures

Optimism toward the crisis was measured using three items (Briley et al., 2017; Reed et al., 1999) (e.g., In regards to the current crisis, I have a positive outlook on what's to come, α = 0.95). Perception of collective resilience toward the crisis was measured using three items adapted from Lyons et al. (2016) (e.g., Quebec will be able to overcome this major crisis, α = 0.95). Social support was adapted from two studies (Dolbier & Steinhardt, 2000; Ferguson & Goodwin, 2010) (e.g., In the context of the current crisis… I feel as though I have the support of my loved ones, α = 0.93). Anxiety was measured using three items from Taylor (1953) (e.g., I cannot seem to relax, α = 0.93).

Behavioral changes were measured by asking participants if they sought to adopt certain behaviors since the beginning of the previous month (Price et al., 2018). Four variables were measured: healthy lifestyle (e.g., Prioritize a healthy lifestyle, α = 0.89), decluttering activities (e.g., Getting rid of thing you do not need, α = 0.87), slowing down the pace of life (e.g., Living in the moment, α = 0.83), and reflecting on one’s consumption (e.g., Rethinking your relation with consumption, α = 0.72).

### TABLE 1 Demographic profile of respondents (percentages).

| Gender          | Month 1 (n = 493) | Month 2 (n = 516) |
|-----------------|-------------------|-------------------|
| Male            | 45.2%             | 46.1%             |
| Female          | 54.8%             | 53.9%             |

| First language  | Month 1 (n = 493) | Month 2 (n = 516) |
|-----------------|-------------------|-------------------|
| French          | 89.0%             | 89.5%             |
| Other           | 11.0%             | 10.5%             |

| Education       | Month 1 (n = 493) | Month 2 (n = 516) |
|-----------------|-------------------|-------------------|
| Secondary and college | 48.5%         | 45.0%             |
| University      | 51.5%             | University: 55.0% |

| Conjugal status | Month 1 (n = 493) | Month 2 (n = 516) |
|-----------------|-------------------|-------------------|
| In a relationship: 53.8% Single: 46.2% | In a relationship: 54.8% Single: 45.2% |

| Income          | Month 1 (n = 493) | Month 2 (n = 516) |
|-----------------|-------------------|-------------------|
| Less than $40 k: 23.6% | $40 k–$80 k: 36.1% | $80 k and more: 40.3% |
| $40 k–$80 k: 36.1% | $80 k and more: 38.2% |

| Age             | Month 1 (n = 493) | Month 2 (n = 516) |
|-----------------|-------------------|-------------------|
| 18–29: 12.6%    | 18–29: 13.6%      |                   |
| 30–44: 25.3%    | 30–44: 21.3%      |                   |
| 45–59: 31.2%    | 45–59: 29.7%      |                   |
| 60 and over: 30.9% | 60 and over: 35.4% |

### TABLE 2 Standardized factor loadings and psychometric properties.

|                          | Full model | Month 1 | Month 2 |
|--------------------------|------------|---------|---------|
| Optimism (α = 0.95, CR = 0.94, AVE = 0.85) |            |         |         |
| I have a positive outlook on what's to come | 0.91 | 0.90 | 0.92 |
| I remain positive about the future | 0.93 | 0.94 | 0.94 |
| I remain confident about the future | 0.92 | 0.94 | 0.93 |
| Social support (α = 0.93, CR = 0.93, AVE = 0.82) |            |         |         |
| I feel as though I have the support of my loved ones | 0.92 | 0.94 | 0.91 |
| I feel as though I can talk to a loved one if necessary | 0.90 | 0.91 | 0.90 |
| I feel well supported to live the current period | 0.89 | 0.89 | 0.88 |
| Anxiety (α = 0.93, CR = 0.93, AVE = 0.82) |            |         |         |
| I'm very nervous | 0.95 | 0.94 | 0.95 |
| I cannot seem to relax | 0.85 | 0.84 | 0.86 |
| I feel anxious | 0.91 | 0.91 | 0.91 |
| Collective resilience (α = 0.95, CR = 0.96, AVE = 0.88) |            |         |         |
| Quebec will overcome this major crisis | 0.93 | 0.92 | 0.94 |
| Quebec will be able to bounce back from the current challenge | 0.94 | 0.95 | 0.93 |
| Quebec will be able to overcome the difficulties related to the crisis | 0.94 | 0.94 | 0.93 |
| Healthy behaviors (α = 0.89, CR = 0.89, AVE = 0.80) |            |         |         |
| Prioritize a healthy lifestyle | 0.87 | 0.85 | 0.90 |
| Make healthier life choices | 0.92 | 0.91 | 0.93 |
| Decluttering of one’s space (α = 0.87, CR = 0.87, AVE = 0.77) |            |         |         |
| Getting rid of thing you do not need anymore | 0.85 | 0.86 | 0.85 |
| Decluttering your home | 0.90 | 0.90 | 0.90 |
| Slowing down the pace of one’s life (α = 0.83, CR = 0.82, AVE = 0.70) |            |         |         |
| Living in the moment | 0.81 | 0.85 | 0.76 |
| Taking the time to enjoy the simple things | 0.86 | 0.84 | 0.89 |
| Reflecting on one’s consumption (α = 0.72, CR = 0.79, AVE = 0.60) |            |         |         |
| Rethinking your relation with consumption | 0.65 | 0.66 | 0.64 |
| Making positive changes to your consumption habits | 0.87 | 0.90 | 0.84 |
pace of one's life (e.g., Living in the moment, $\alpha = 0.83$) and reflection on one's consumption (e.g., Rethinking my consumption habits, $\alpha = 0.72$).

### 3.2 | Data analysis and results

Structural equation modeling with AMOS was used. The measurement model was assessed to evaluate the internal consistency and reliability of the constructs. Indicators have satisfactory factor loadings ($>0.4$; Hair & Babin, 2018). The constructs show the required reliabilities of 0.6 (Bagozzi & Yi, 1988). The average variance extracted is satisfactory for each construct ($>0.5$; Hair & Babin, 2018). The results indicate that the model fits the data well (NFI $= 0.97$, NNFI $= 0.98$, CFI $= 0.98$, SRMR $= 0.08$, RMSEA $= 0.04$, $\chi^2[278] = 463.00$, $\chi^2/df = 2.96$). Psychometric properties and factor loadings are provided in Table 2.

Hypotheses were tested in the full model based on regression weights. All relations are significant. Optimism positively influences the adoption of healthy behaviors ($H1a; \beta = 0.30, p < 0.05$), decluttering ($H1b; \beta = 0.23, p < 0.05$), slowing down ($H1c; \beta = 0.41, p < 0.05$) and reflection on consumption ($H1d; b = 0.28, p < 0.05$). In terms of optimism's antecedents, social support ($H2; \beta = 0.14, p < 0.05$), anxiety ($H3; \beta = -0.15, p < 0.05$) and collective resilience ($H4; \beta = 0.64, p < 0.05$) are positively linked to optimism. All hypotheses are supported.

The conceptual model proposed in this research suggests individually (i.e., social support and anxiety) and collectively related (e.g., collective resilience) influences on optimism toward the crisis. Interestingly, social support and anxiety's impacts on optimism suggest compensatory effects (0.14 vs. -0.15), consistent with prior research that revealed that social support moderates the negative effects of stress (Wang et al., 2014). Figure 1 illustrates the main findings.

### 3.3 | Multigroup analysis

The multigroup analysis focuses on comparing the model during different periods, after the first and second month. Prior to testing multigroup variations, configural and metric invariance was tested. To verify configural invariance of the multigroup model, an unconstrained multigroup measurement model was examined (Hu & Bentler, 1999).

The configural invariance model provides a satisfactory fit ($\chi^2/df = 1.93$, CFI $= 0.98$, RMSEA $= 0.03$) suggesting that the model structure is similar across the periods. Metric invariance was verified by requiring constraints to the measurement weights such that the factor loadings were equal for both groups. The fit indices for the constrained model provided satisfactory results ($\chi^2/df = 1.92$, CFI $= 0.98$; RMSEA $= 0.03$). This constrained model did not significantly decrease fit ($p = 0.22$), supporting metric invariance.

To explore overall between-group variations, two models were compared in terms of fit, a structural model with each path constrained to be equal across the groups and a structural model in which no constraint was imposed. The fit of the constrained model decreased significantly ($\chi^2[22] = 34.01, p < 0.05$), providing evidence of moderation by month (Hartman et al., 2017).

To identify significant path variations across periods, a structural model with one path constrained to be equal for both groups was compared with the same model with no constraint (Hartman et al., 2017). Two paths were identified as different: from social support to optimism ($\beta_{month_1} = 0.22, p < 0.001$; $\beta_{month_2} = NS$; $\chi^2[1] = 8.35, p < 0.001$) and from collective resilience to optimism ($\beta_{month_1} = 0.54, p < 0.001$; $\beta_{month_2} = 0.73, p < 0.001$; $\chi^2[1] = 8.45, p < 0.001$). This suggests that optimism may be driven by different factors through time in the current pandemic, with an initial role of social support (0.22; month 1) followed by an important influence of collective resilience (0.73; month 2). Figure 2 illustrates the results.

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**Figure 1** Model and relations (month 1 and 2 combined, $n = 1009$).

**Notes**: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
This research confirms the role of individual optimism and collective resilience in influencing positive behavioral changes in a crisis context—the COVID-19 pandemic. Results confirm the role of collective resilience in influencing optimism and in turn, the role of optimism in influencing positive behavioral change, namely healthy behaviors, decluttering, slowing down and reflection on consumption. Results also indicate that the influence of social support on optimism is mainly crucial at the beginning of a crisis, then giving more space to the role of collective resilience. Finally, the role of personal optimism on behavioral changes was found to be stable for both periods.

4.1 | Theoretical contributions

This research provides several contributions. First, it provides a new understanding of behavioral change in a crisis situation and adds to the emerging literature studying the context of the COVID-19 pandemic (e.g., Basch et al., 2020; He & Harris, 2020; Jeong et al., 2021; Lim, 2021; Roggeveen & Sethuraman, 2020). By integrating the fields of consumer behavior and literature on psychology, it helps to better understand the determinants of habit change (Best & Papies, 2017; Papies et al., 2014). More specifically, this research identifies new variables (i.e., optimism and collective resilience) that play a significant role in helping people live a healthier (e.g., prioritize a healthy lifestyle) and more fulfilling life (e.g., living in the moment, slowing down) that focuses less on materialism (e.g., getting rid of things, reflecting on one's consumption habits). It thus identifies new drivers of sustainable and health-related behaviors, an area that has been called for research in recent years (El Haffar et al., 2020; Nguyen et al., 2019). Considering that health problems (e.g., obesity, sedentary) and lifestyle-related issues (e.g., contemporary fast-paced lives) constitute a challenge of global proportions for countries seeing an increase in the associated costs (Blouin et al., 2015; Lieffers et al., 2018), there is much interest in better understanding the drivers of healthier habits.
Second, this study reveals the important role of optimism in global health-related crises such as the Covid-19 pandemic. Although optimism has been related to several positive outcomes in past research (Andersson, 1996; Chopik et al., 2015; de Ridder et al., 2000; Forgeard & Seligman, 2012), its role in stimulating behavioral change in a collective crisis has not been empirically studied. In doing so, this study contributes to the overall understanding of how individual traits influence habit change (e.g., Howlett et al., 2008). Interestingly, recent work highlighted the role of optimism—and more specifically comparative optimism bias (Mahmoodi et al., 2021)—in influencing one’s perceived efficacy, leading to increased sustainable behaviors. The current study brings additional evidence of the importance of this trait in consumers’ decisions and its impact on positive health and lifestyle-related behavioral changes. Relatedly, this research demonstrates that collective resilience is an important variable to consider in behavioral change literature, answering recent calls for research around the role of community resilience in driving sustainable consumption (O’Rourke & Lollo, 2015). In sum, this research offers new theoretical lenses to understand the impact of global crisis by considering its individual-related (i.e., optimism) and group-related (i.e., collective resilience) psychological effects.

Third, this research brings clarification to the equivocal literature on consumption behavior in times of crisis. While the literature offers ambiguous results regarding these behaviors, which consist on the one hand of a reduction in spending and unnecessary purchases (Alonso et al., 2017; Faganel, 2011), and on the other an increase in compulsive, compensatory and emotional purchases (Kennett-Hensel et al., 2012), the results of this research support the view that consumption changes in the context of a crisis are part of an overall perspective of reducing consumption (through decluttering) and reflecting on one’s choices (through reflection on consumption habits), as some research suggests (e.g., Ozdamar Ertek et al., 2020). It provides an accurate and up-to-date portrait of behavioral changes within the Covid-19 crisis.

Finally, this research reveals that a context change—even a negative one—is a powerful ally for habit change, as it enables people to establish new patterns of behavior in the absence of competing habit cues (Wood & Neal, 2009). Although literature has looked at changes when one experiences a positive context change (e.g., new job, new start; Wood & Neal, 2009; Price et al., 2018), less work has been conducted on the implementation of positive changes in a difficult situation. By exploring new habits in the pandemic context, this study contributes to literature by revealing that positive outcomes can emerge from negative situations. Furthermore, it enriches the understanding of the role of optimism on certain behaviors in a crisis situation and contributes to emerging literature on the subject (Briley et al., 2017). In this regard, an additional exploratory analysis suggests that the role of optimism on changes is more important for those who lost their job during the crisis (see Web Appendix A), reinforcing the idea that optimists living a crisis are better able to adapt and take advantage of this crisis.

### 4.2 Public policy and managerial implications

The results of this research can guide policymakers in developing strategies to help individuals overcome difficult situations such as the current pandemic, as well as other stressful events, and to help them turn these events into opportunities for self-improvement. This article provides initial evidence that a communication strategy based on optimism is promising in a crisis situation, not only to increase general confidence but ultimately to influence positive individual behavior. Concretely, governmental advertising agencies should consider this communicational axis in influencing citizens and helping them make the most out of the crisis. For example, the Singapore Government created advertisements that promoted optimism and collective effort to provide strength to persevere in the face of this difficult journey (Singapore Government, 2020). In light of the current study and its results, this strategy appears promising. Concretely, communication campaigns promoting optimism should be considered by governmental agencies in global crisis situations to help leverage the positive consequences of such emotions on individual behaviors. Several leaders have argued about the importance of “making the most out of a crisis” and turning this situation into an opportunity (Thomrdike, 2021). Current research provides initial evidence that supports this.

Furthermore, the results of this research indicate that government decision-makers need to understand the importance of collective resilience. Indeed, this research shows that building on collective resilience in crisis situations could ultimately benefit individual well-being. This learning is useful in any crisis situation, pandemic or not, and is consistent with what experts on the subject of crisis management have said: “this involves appealing to collective values and a collective history, emphasizing society at large rather than individual self-interest.” (Dr. Ira Helsoot, editor for the Journal of Contingencies and Crisis Management, cited in Robson, 2020). In this regard, some authors cite the example of the mayor of New York during the attacks of September 11, 2001, who used this group strength and appealed to New Yorkers’ collective pride by continually asking them to set a positive example for the rest of the country (Robson, 2020). In short, understanding the role of collective resilience offers policymakers and communicators with valuable insights to put forward in their speeches and communications to capitalize on the power and resilience of the group in a crisis context.

From a managerial perspective, the results of this research have implications for firms and organizations that have a social and environmental vocation, such as organizations that help consumers adopt sustainable habits for example. Indeed, this research provides managers with new insights for understanding the determinants of responsible behaviors through the role of optimism, as the habit changes studied in this research are part of a responsible approach to consumption (Parboteeah et al., 2012). Concretely, managers need to understand the role of individual optimism in influencing the adoption of some sustainable habits, and should leverage this insight in advertising and communication strategies. For example, communication
strategies should focus on positive and optimism-oriented messages to influence more consumers to make sustainable product choices. Given the challenge of educating people on making more responsible choices (El Haffar et al., 2020), identifying the role of optimism offers a concrete contribution to use in various brand-related strategies. Relatedly, brands that naturally evoke consumer optimism—self-relevant brands and brands that appeal to consumers’ values (Tuan et al., 2012)—appear well positioned to leverage the potential of optimism on consumers’ behavioral change.

Another managerial implication relates to the importance for businesses to adapt to new consumer mindsets and evolving perceptions toward consumption in general. The results of this research show that the pandemic has influenced the way consumers perceive their lifestyle and their consumption. Consumers seem to want to slow down the pace of their activities, simplify their space, make more responsible choices and consider their real needs when it comes to consumption. In concrete terms, companies must be aware of the fact that consumers may question, and even criticize, their role, in view of their influence in current overconsumption and their significant ecological footprint (Pimonenko et al., 2020; Stanley, 2020). They must realize that consumer expectations have changed; consumers want companies to be more than businesses, that is, to also have a social and environmental purpose (Grohmann & Bodur, 2015). In a nutshell, ecological and social repositioning is a wise strategy for a company to consider in order to stay relevant in the current context (Guèvremont et al., 2020). Patagonia, for instance, exemplifies this by engaging in brand activism, constantly reviewing the way they do things, and embedding its social and environmental mission in all its decisions and actions (Vredenburg et al., 2020). Companies must be willing to challenge themselves to understand the new consumer reality, and this is all the more urgent in the context of the current crisis.

4.3 | Limits

Behavioral change is a multifaceted and complex construct (Best & Papies, 2017; Ji & Wood, 2007), and this research considers a limited set of variables in a specific context. Furthermore, this research does not examine the continuity of the behaviors when the context reverts back to normal. This issue is important as learned situational, thus context-dependent, cues play a role in forming long-lasting habits (Neal et al., 2012). It would therefore be important to conduct additional studies and see the evolution of the behaviors studied in this research on a medium- to long-term basis. It is also important to note that because this research focuses on positive behavioral changes driven by the current pandemic, it does not include the reality of individuals whose habits have deteriorated due to the current crisis (Briley, 2020). An important limit of this research is that different samples were used in month 1 and month 2. Although the samples selected show similar socio-demographic characteristics and were selected from a representative panel of the population (Bourbonnais, 2019), conducting a longitudinal study using the same sample would have been preferable. Moreover, several control variables relevant in the current context would have been important to include, both on a sociodemographic (e.g., job gain/loss) and psychographic (e.g., level of stress) level. Future work should address these issues.

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DATA AVAILABILITY STATEMENT

Research data are not shared.

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APPENDIX A: WEB APPENDIX A - EXPLORATORY ANALYSIS REGARDING THE ROLE OF OPTIMISM

In order to shed additional light on the role of optimism on behavioral changes, an additional exploratory analysis was conducted on the sample of the second month (516 participants). For this second survey, an additional question was asked: Please share your level of agreement (1 = fully disagree, 7 = fully agree): “I lost my job or part of my hours at work because of the current crisis.”

Different linear regressions of optimism toward behavioral changes showed that in the following cases, the impact of optimism on positive change was greater when people had lost their job (i.e., answer of 1, 2, or 3) than when they had not lost their job (i.e., answer of 5, 6, or 7): optimism on healthy behaviors ($\beta_{567} = 0.19, p < .01; \beta_{123} = 0.26, p < .01$), optimism on slowing down ($\beta_{567} = 0.21, p < .01; \beta_{123} = 0.32, p < .01$) and optimism on the reflection of one’s consumption ($\beta_{567} = 0.16, p < .05; \beta_{123} = 0.22, p < .05$).