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The dimensions and effects of excessive change

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Abstract

Purpose – Change excessiveness is argued as a critical contextual aspect of change management. The purpose of this paper is to identify three major dimensions to change excessiveness: change frequency, extent, and impact. A three-factor structure is proposed to broaden the emerging study on the contextual aspects of change. Its pertinence is proposed in addressing healthcare employees' exhaustion, change-related uncertainty, and support for change.

Design/methodology/approach – Using questionnaires, a first pilot sample ($n = 131$) was recruited to test the psychometric properties and validity of the three-factor structure, while controlling for affectivity. Structural equation modeling techniques following a two-step approach were used on a second sample ($n = 363$). First a confirmatory assessment of the three-factor structure of excessive change is tested. Second, a full mediation effect of excessive change, as a second-order latent factor, regrouping change frequency, impact and extent as first-order factors, was modeled to predict a tripartite conception of change-related reactions: exhaustion, uncertainty, and support for change.

Findings – The excessive change three-factor structure is validated, while showing its superiority over alternative models. The fully mediated model is confirmed. Therefore, the significant added effects of change frequency, impact, and extent are positively related to emotional exhaustion and cognitive uncertainty, while negatively related with behavioral support for change.

Originality/value – This study contributes by proposing a three-factor structure to excessive change assessment based on previous and independent findings in the literature. It also contributes in modeling the added effect of change frequency, extent, and impact in the full mediation relationship of change excessiveness on a tripartite reactions to change in healthcare management settings.

Keywords Exhaustion, Change management, Organizational change, Demand-resource theory, Excessive change, Individual perceptions

Paper type Research paper

Introduction

In the change management literature, an emerging and small corpus of studies have addressed the downsides of the actual increasing necessity and propensity to make changes in organizations (Abrahamson, 2004; Stensaker *et al.*, 2002). Indeed, while I do not question the strategic importance for change, some studies point to negative effects of excessive change at an implementation level. In a way, even the best management practices may become harmful if used to excess (Pierce and Arguinis, 2013).

Findings have been published regarding specific contextual aspects – whether as research objects or control factors – that point to the psychological phenomena associated with change excessiveness. These studies have been rooted in demand-resource theory or in a related psychological adaptation theory (Stensaker *et al.*, 2002; Rafferty and Griffin, 2006; Herold *et al.*, 2007). The demand-resource theory suggests that an individual's well-being is threatened in situations in which environmental demands or pressures exceed his or her coping resources (Lazarus and Folkman, 1984). Through this perspective, organizational change may become excessive when its demands exceed the employees' resources, therefore provoking negative reactions to change. However, the scarce literature on the subject appears fragmented. For example, uncertainty and intentions to quit are related to change

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frequency (Rafferty and Griffin, 2006); commitment, support of change, and turnover intentions are related to change impact levels (Herscovitch and Meyer, 2002; Rafferty and Griffin, 2006); and commitment to change (Herscovitch and Meyer, 2002), change performance (Senior and Swailes, 2010), cynicism, constructive behaviors (Stensaker and Meyer, 2012), and person-organization and person-job fit (Caldwell *et al.*, 2004) are predicted by change extent.

It is possible to observe that the "demand" implied by organizational change is not consensually defined, thus blurring the operationalization of the situated meaning of change excessiveness. In this paper I propose to investigate previous studies on the subject in order to conceptualize an operational definition. These studies have used different potential sub-dimensions or different definitions of excessiveness. Change frequency, impact, extent, significance, and transformational change are independently or interchangeably assessed to study (or control) contextual effects in research. It is of importance to be more precise about which of these dimensions refers to perceptions of change excessiveness and whether they are all contributing to this same factor.

The validation of my definitional proposition will be empirically tested in a context which is well known for its constant and intensive organizational changes: the healthcare management sector (Yung *et al.*, 2004). Indeed, on an organizational macro-scale, many national healthcare systems experience the necessity to compete through organizational changes toward "a quest for excellence" (Jourdain and Chênevert, 2015). However, on a micro-scale level, stability in rigorous standards and procedures is at the heart of operations (Johnson and Boss, 1991). These contextual "demands" are thus putting pressure on employees' resource in this sector as recently studied by Jourdain and Chênevert (2010), who have linked the elevated "demands" on nurses and insufficient "resources," with increased levels of burnout and intentions to quit. The operational definition to excessive change is thus tested, in part in predicting its affective, cognitive, and behavioral effects in healthcare contexts. Indeed, such a tripartite effect is still to be explored in this context, while it follows Oreg *et al.*'s (2011) suggestion on the importance of uncovering not only the cognitive, but the affective-cognitive-behavioral dimensionality of reactions to change.

In order to achieve this intention, I conduct a review of the quantitative literature to identify major dimensions of excessive change from an employees' perspective. The objective is to conceptualize and validate a multi-factor measure representing change excessiveness. This assessment scale is used in a healthcare management setting, for which its managerial implications appear to be of utmost importance, as it will be discussed in our theoretical background. Second, this measure is used to study the effects of excessive change on a tripartite reaction to change (i.e. cognitive, affective, and behavioral) toward actual change episodes experienced in two public healthcare institutions. These reactions are: cognitive uncertainty, emotional exhaustion, and support for change.

The dimensions of excessive change

The quantitative literature on change management and organizational behavior has produced some studies on specific contextual factors of change. In addition, more researchers are using contextual variables on excessiveness to control their results. Five dimensions (i.e. frequency, impact, transformational, extent, and significance) are identified and regrouped in the three sections below relating to change frequency, change impact, and change extent.

Change frequency

Rafferty and Griffin (2006) defined change frequency as an important and salient perception about "how often change has occurred in [an individual's] work environment" (p. 1154). Similarly, Monge (1995) identified the rate of change as an important component of the time-dependent effects of change processes. Thus, not only does a specific change have its own "static" effects, but the frequency of multiple changes also has a direct influence as well as its own causality processes. Change frequency has the potential to influence employees' perceptions of excessiveness as well as engenders a change simultaneity effect. Indeed, the more frequently change occurs in an organization, the more change episodes will overlap, potentially leading to initiative overload, change-related chaos, and burnout (Abrahamson, 2004). Multiple, frequent, excessive, or simultaneous changes are regarded as a major challenge in change management because of their negative impacts on organizational performance (Klarner and Raisch, 2013; Stensaker *et al.*, 2002).

Change impact or transformational change

Transformational change is described by Herscovitch and Meyer (2002) as the perceived effect of organizational change on job performance, organizational climate, and life outside work. Similarly, Rafferty and Griffin (2006) assessed the impact of organizational change on the individual, suggesting that the salient "novelty" of a change episode means it is seen as potentially harmful or threatening (Lazarus and Folkman, 1984). Thus, transformational or second-order change often leads to a clearer perception of "novelty," making the change more threatening from a demand-resource viewpoint, and potentially increasing the perception of change excessiveness. The level of transformational change, or change impact, is related to change commitment and support (Herscovitch and Meyer, 2002) as well as to turnover intentions and change frequency (Rafferty and Griffin, 2006). The simultaneous and successive aspects of change could therefore lead to more problematic outcomes if recent changes are considered to be transformational.

Change extent or significance

Change extent is defined as the potential reach of the change, emphasizing its effects on work processes, procedures, and routines, which are already known to be central to employees' reactions (Caldwell *et al.*, 2004). Change extent is known to compromise the chances of success in ongoing change projects (Senior and Swailes, 2010). It is also related to person-organization fit based on value congruence, and to a lesser extent, to person-job fit based on perceptions of demands vs abilities (Caldwell *et al.*, 2004). Herscovitch and Meyer (2002) observed a similar dimension using very similar items in what they called "change significance"; their results showed relationships between change impact and affective and normative commitment to organizations.

As this study proposes, change excessiveness is a multi-factor perception. I regrouped every contextual factor used in quantitative studies on this subject into three sub-dimensions: change frequency, impact, and extent. Bringing these three factors together, I can hypothesize the following:

H1a. Change frequency, impact, and extent are three distinguishable but still strongly correlated components of excessive change as a latent variable.

This suggests the perception of change excessiveness as a three-factor psychometric construct. Its components are selected to be complementary and representative of this

individual perception and none can be predicted as having stronger effects that the two others in the literature. Therefore, I can also hypothesize the following:

H1b. Excessive change as a second-order latent variable completely mediates the principal effects of change frequency, impact, and extent on measured potential reactions.

To synthesize, three distinguishable and complementary dimensions for contextual excess of change were selected for this study: change frequency, change impact, and change extent. As reported in this last section, each of these dimensions have been independently observed in relationships with organizational change outcomes, or they have influenced our conceptualization of potential effects specifically related to organizational change in healthcare administration settings.

The potential tripartite effects of excessive change

Change-related uncertainty is identified as an important reaction to change frequency, and exhaustion is suggested as a possible outcome of excessive change by Rafferty and Griffin (2006). Moreover, both outcomes have been found to affect organizational performance in several studies. Following Oreg *et al.*'s (2011) suggestion to study tripartite reactions to organizational change, uncertainty is a cognitive outcome (Howell and Burnett, 1978), and exhaustion is primarily an affective consequence in the literature (Leiter and Schaufeli, 1996). Support for change (Herscovitch and Meyer, 2002) is completing the tripartite perspective as a behavioral outcome.

Change-related uncertainty

Uncertainty is a major issue in daily healthcare operations. On a macro-level of analysis, healthcare management is representative of Klarner and Raisch's (2013) change-stability paradox. In other words, change must be constant for competitiveness, but certainty through stability is critical for good performances (Johnson and Boss, 1991). On a micro-level, uncertainty is a major issue in daily healthcare managerial and clinical actions (Saltman, 2008).

Moyle (1995) reported that excessive workloads, or workloads that fluctuate unpredictably, are factors in strain and stress, and they relate to well-being and to individuals' negative affectivity. Job uncertainty has been shown to be an antecedent of job satisfaction, emotional exhaustion, and locus of control (Paulsen *et al.*, 2005). Moreover, Rafferty and Griffin (2006) found that uncertainty is related to reported levels of change frequency. Therefore, uncertainty is a possible negative cognitive outcome of a high level of perceived change excessiveness among employees. Thus, I put forth the following hypothesis:

H2a. Perceptions of excessive change will present a significant and positive relationship with employees' levels of uncertainty.

Emotional exhaustion

Emotional exhaustion, as one of the three components of the burnout model proposed by Maslach and Jackson (1981), is a major issue in healthcare management (Jourdain and Chênevert, 2010). Indeed, it has been linked with nurses' withdrawal and intentions to quit by Jourdain and Chênevert (2010). However, emotional exhaustion is not only an issue at the individual level but also at the organizational level if one considers the

current nurse-shortage problem and the image this job has at a societal level (Simoens *et al.*, 2005).

Conceptually, emotional exhaustion has been defined as a chronic condition whereby constant stresses and demands combine to emotionally drain and physically exhaust the individual (Wright and Cropanzano, 1998). Organizational change is often represented as work overload, and the emphasis on "doing more with less" may represent a critical outcome of excessive change. Emotional exhaustion is therefore likely a significant affective correlate of excessiveness for employees:

H2b. Perceptions of excessive change will have a significant and positive relationship with employees' reported levels of emotional exhaustion.

Behavioral support for change

Two of the most studied reactions in the change management literature are resistance and support for change. Whether these take the form of intentions to resist change (Bovey and Hede, 2001), intentions to support change (Peach *et al.*, 2005), participation in change (Cunnigham *et al.*, 2002), reactions to change (Oreg, 2006), or behavioral support for change (Herscovitch and Meyer, 2002), several studies report empirical results on these general outcomes. Herscovitch and Meyer's (2002) conceptualization of support for change is interesting as it considers active resistance to change and championing as two extremes of the same behaviorally anchored continuum, and it has been addressed in the healthcare administration sector. Their findings support my empirical intentions as they showed that change impact – one of the three identified excessive-change components – is related to nurses' behavioral support for change. Thus, I propose the following:

H2c. Perceptions of excessive change will present a significant and negative relationship with behavioral support for change.

In order to test the hypotheses, I conducted two studies. In the first study acted as a pilot where I conducted an exploratory test of *H1*. This study's psychometric properties, and construct and convergent validities are observed. The second study proposes a two-step approach to scale validity and hypothesis testing using structural equation modeling (SEM) techniques (Anderson and Gerbing, 1988).

Study 1

Change frequency, extent, and impact are deemed to be three complementary components of the latent excessive-change second-order factor. I conducted a pilot study in an exploratory perspective to assess psychometric properties, and to test construct and convergent validity, while controlling for individual affectivity.

In accordance with these objectives, the items were subjected to a potential item-reduction step (Hinkin, 1998), a reliability test using Cronbach's α, and a principal component analysis. A control variable was tested using the PANAS (Watson *et al.*, 1988). Subsequent discriminant, construct, and criterion-related validity tests are proposed in Study 2 using a two-step approach.

Method

Participants and procedure. Sample 1 was composed of 131 participants from a public healthcare institution (30 percent response rate). The 423 employees were invited to answer the questionnaire online on their computer or via access points.

The organization was undergoing the early implementation phase following a merger with another establishment. Since this merger implied multiple change projects, top management felt that employees might be experiencing some level of strain and fatigue. It was important for this study that organizational changes were present in a certain intensity in order to observe a potentially normal distribution regarding excessiveness perceptions. All personnel were asked to answer the online questionnaire using a link that I sent via e-mail. The instructions indicated that they had one week to answer the questionnaire, but that it was important to answer all the questions in the same session. This last requirement was verified using login time data. The questionnaire contained 42 items, but three were not use in the analyses. Participants were also informed of all common ethical issues regarding survey-based research.

Participants had a mean age of 44 years (SD = 10.1), 61 percent were women, and the mean tenure is "11-14 years" while the mode was "3-6 years." As typically seen in this sector, 29 percent held a master's degree, a PhD, or an MD diploma; 30 percent had a bachelor's degree (or equivalent); 26 percent had a college degree; and 15 percent had a high school education.

Measures. Change frequency was measured using Rafferty and Griffin's (2006) three-item scale ($\alpha = 0.67$). An example item is "It feels like change is always happening." Answers were reported on a five-point scale ranging from 1 ("strongly disagree") to 5 ("strongly agree").

Change extent was measured using Caldwell *et al.*'s (2004) three-item scale ($\alpha = 0.78$) adapted to represent the specific and contextual dimension of change saturation. An example of this scale is "This specific change involved changes in the work unit's processes and procedures." Answers were reported on a five-point scale ranging from 1 ("strongly disagree") to 5 ("strongly agree").

Change impact was assessed using Rafferty and Griffin's (2006) three-item scale ($\alpha = 0.90$). An example of this scale is "Large-scale changes are significantly changing your unit's goal." Answers were reported on a seven-point scale ranging from 1 ("very slightly or not at all") to 7 ("nearly always or always").

Emotional exhaustion was assessed using the emotional-exhaustion dimension of the Maslach Burnout Inventory (Maslach, 1982). It is defined as an "overextension and depletion of individuals' physical and psychological resources" (Paulsen *et al.*, 2005). After using this scale on multiple pilot tests in the past, I decided to keep five items (one being rejected for low factor loading, one for being redundant) ($\alpha = 0.89$). An example item is "I feel burnout from my work." The answers were reported on a seven-point scale for which 1 indicates "strongly disagree" and 7 indicates "strongly agree."

Uncertainty was assessed using Rafferty and Griffin's (2006) four-item scale ($\alpha = 0.84$). An example item is "My work environment is changing in an unpredictable manner." Answers were reported on a seven-point scale for which 1 indicates "strongly disagree" and 7 indicates "strongly agree."

Support for change was assessed using the 101-point anchored scale developed by Herscovitch and Meyer (2002). Five anchors were proposed and defined by a short text based on the original version and corresponding to "active resistance" (0-20), "passive resistance" (21-40), "compliance" (41-60), "cooperation" (61-80), and "championing" (81-100).

Affectivity traits were assessed as an individual control variable. Since the studied variables may be contaminated by individual affectivity, as suggested by Ferris *et al.* (2008) I used the PANAS 20-item scale (Watson *et al.*, 1988). Two sub-dimensions were assessed: the positive affectivity trait (PA, $\alpha = 0.92$) and the negative affectivity trait

(NA; $\alpha = 0.76$). Participants were asked to answer questions about both on five-point scales ranging from 1 ("very slightly or not at all") to 5 ("extremely").

Psychometric properties, contamination, and discrimination. As presented in Table I, the coefficient α reliability estimates are satisfactory. However, change frequency has a coefficient just below 0.70 ($\alpha = 0.67$). As expected, all three hypothetical factors are strongly correlated with each other and with the aggregated excessive change variable. Emotional exhaustion and cognitive uncertainty correlate with the excessiveness dimensions as well as with support for change, but support for change does not significantly correlate with excessive change. The PANAS scale shows relationships with excessiveness, exhaustion, uncertainty, and support for change, particularly for the negative affectivity trait. Therefore, affectivity will need to be controlled in Study 2. All variables are normally distributed.

Exploratory factor analysis. In order to obtain preliminary results on the excessive-change construct as composed of three sub-dimensions, I used a principal component analysis with a varimax rotation to favor the independence of the three factors. The analysis presents three significant components in regard to eigenvalues or scree distribution while explaining 73.7 percent of total item variance. All items present loadings higher than 0.40 on and only on their respective factors: change impact (loadings: 0.83-0.89; eigenvalue = 4.57), change extent (loadings: 0.58-0.88; eigenvalue = 1.14), and change frequency (loadings: 0.42-0.90; eigenvalue = 0.93). One item present a low loading score (0.42) and the last factor obtained an eigenvalue slightly under 1. As proposed by Costello and Osborne (2005), the eigenvalue threshold is probably not the best way to interpret the results, while the loading precision may be affected by the low sample size. As suggested by these authors, I tested for a complementary indicator regarding the optimal number of factors. The comparative data technique, tested as the most accurate indicator by Ruscio and Roche (2012), indicated a three-factor solution as the last significant improvement to the structure. Therefore, as a preliminary and exploratory step, *H1a* may be supported in the following study; change frequency, impact, and extent are three distinguishable but still strongly correlated components.

Study 2

Study 2 built on the preliminary results from the preceding pilot study, it was produced on a different sample, and it was used to confirm the structure of the excessive change scale using CFA analysis (*H1a*), and to proceed to hypothesis testing using a two-step approach (*H1b*, *H2a-H2c*).

Method

Sampling and procedures. Sample 2 consisted of 363 employees from a second public healthcare institution (45 percent response rate). Initially, 807 employees were invited to answer the questionnaire online on their computer or via access points. This organization was undertaking a merger four years after having experiencing a previous one. This last merger was deemed difficult by top management. In fact, it led to multiple secondary organizational changes, including a quality review, restructuring, employee relocations, and process reengineering. The participants received the same instructions as the Study 1 sample. Participants' mean age was 45.5 years (SD = 10.7), 73 percent were women, the mean tenure in this sample was "11-14 years" and the mode was "3-6 years." Regarding education, 25 percent had a master's, PhD, or MD degree; 39 percent had a bachelor's

Table I.
Means, standard deviations, and factor inter-correlations for Study 1

Variables	*M*	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1 Gender	1.61	0.49	1												
2 Age	44.1	10.1	−0.05	1											
3 Seniority	3.98	2.61	−0.04	0.59**	1										
4 Education	2.73	1.05	0.09	0.02	−0.02	1									
5 PA	3.16	0.78	0.07	0.06	−0.03	0.10	(0.92)								
6 NA	3.66	0.71	0.02	−0.13	0.10	−0.23**	0.03	(0.76)							
7 Frequency	3.50	0.83	0.14	−0.18**	0.05	0.08	−0.13	0.18*	(0.67)						
8 Extent	3.52	0.82	0.07	0.01	0.14	0.15	0.03	0.17*	0.59**	(0.78)					
9 Impact	4.22	1.39	0.00	0.03	0.29**	0.16	−0.05	0.28**	0.57**	0.53**	(0.90)				
10 OCS	3.75	0.86	0.07	−0.04	0.22**	0.16	−0.06	0.26**	0.82**	0.79**	0.89**	(0.87)			
11 Exhaustion	2.92	1.37	0.05	0.09	0.16	0.05	−0.36**	0.34**	0.21**	0.24**	0.27**	0.29**	(0.89)		
12 Uncertainty	3.74	1.28	0.01	−0.13	0.04	−0.15	−0.26**	0.35**	0.33**	0.30**	0.32**	0.38**	0.31**	(0.84)	
13 Support[a]	65.0	17.35	0.03	0.13	0.06	0.23**	0.47**	0.16	−0.10	−0.00	0.02	−0.02	−0.23**	−0.28	1

Notes: $n = 131$. PA, positive affectivity trait; NA, negative affectivity trait; OCS, organizational change saturation. Mean computed from frequency, extent and impact. Cronbach's αs are in parenthesis. [a]101-points behaviorally anchored scale. *$p < 0.05$; **$p < 0.01$

degree (or equivalent); 22 percent had a college degree; and 14 percent had a high school diploma (one missing). Sample 2 received the same questionnaire as Sample 1.

Descriptive results and inter-correlations. The coefficient α reliability estimates are satisfactory, as presented in Table II. As expected, all relationships are very similar to Study 1. All variables are normally distributed.

Confirmatory factor analysis. The two-step approach (Anderson and Gerbing, 1988) was used to proceed to the validation of the hypotheses. As a first step, a CFA was used to confirm the factor structure preliminary explored in Study 1. The three factors – frequency, impact, and extent – were modeled as latent factor under excessive change as a second-order latent factor, and each regrouped their respective three items as observed factors. The hypothesized structure of excessive change obtained satisfactory goodness-of-fit indices (Hu and Bentler, 1999): normed χ^2 (χ^2/df) = 4.2, GFI = 0.94, CFI = 0.94, SRMR = 0.05, RMSEA = 0.09. Excessive change is validated as a latent factor composed of change frequency, impact, and extent. Therefore, *H1a* is confirmed.

Subsequent CFA tests were conducted to determine the discriminant validity of the three-factor structure of the excessive change scale (Anderson and Gerbing, 1988). Table III shows the superiority of the three-factor structure compared to all possibilities.

SEM. SEM techniques were used to undertake the second step of hypothesis testing (*H1b* and *H2a-H2c*). The previous CFA model was reproduced, and emotional exhaustion, uncertainty, and support for change were modeled as dependent variables related to excessive change. All estimates are significant at $p < 0.01$ in the Figure 1 modeling. The goodness-of-fit indices are satisfactory: normed χ^2 (χ^2/df) = 3.65, GFI = 0.93, CFI = 0.93, NNFI = 0.93, SRMR = 0.06, RMSEA = 0.09. The results, presented in Figure 1, show that all principal effects between each of the three excessive change components and the studied dependent variables are rendered non-significant through a full mediation effect of excessive change. Thus, *H1b* is confirmed.

Positive and negative affectivity traits are related to emotional exhaustion, whereas positive affectivity is related to support for change. Also, all three components of excessive change are strongly associated with the latent variable, and excessive change is significantly associated with all three DVs, which are moderately interrelated. Indeed, higher levels of uncertainty are related to higher emotional exhaustion and lower support for change. As predicted, excessive change leads to more emotional exhaustion (*H2a*), to higher change-related uncertainty (*H2b*) as well as to lower levels of behavioral support for change (*H2c*). Therefore, the three hypotheses are confirmed.

Discussion

This study addressed two complementary objectives. First, it proposed to conceptualize a multi-factor measure representing change excessiveness and proceeded to empirical validation in two healthcare administration settings. Second, it proposed to study the effects of excessive change on a tripartite reaction to change (i.e. cognitive, affective, and behavioral). Cognitive uncertainty, emotional exhaustion, and behavioral support for change were related to change excessiveness in two healthcare institutions undergoing mergers. The following sections highlight the theoretical and contextual implications of our study.

Theoretical implications

The dimensionality of change excessiveness. The first contribution of this paper is the regrouping of similar theoretical concepts and empirical findings as distinct and

Table II.
Means, standard deviations, and factor inter-correlations for Study 2

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1 Gender	1.73	0.44	1												
2 Age	45.5	10.7	−0.07	1											
3 Seniority	3.97	2.52	−0.15**	0.56**	1										
4 Education	2.75	0.98	0.08	−0.22**	−0.16**	1									
5 PA	3.18	0.71	0.00	0.02	−0.02	0.14**	(0.91)								
6 NA	3.73	0.67	0.03	−0.08	−0.05	0.01	−0.13*	−(0.71)							
7 Frequency	3.53	0.79	0.08	−0.11*	−0.04	0.05	−0.06	0.15**	(0.72)						
8 Extent	3.52	0.77	0.04	0.00	0.09	0.02	−0.01	0.12*	0.62**	(0.82)					
9 Impact	4.11	1.28	0.03	0.10*	0.15**	0.13*	0.03	0.09	0.49**	0.46**	(0.88)				
10 OCS	3.72	0.78	0.06	0.02	0.10	0.09	−0.01	0.14**	0.81**	0.79**	0.86**	(0.87)			
11 Exhaustion	2.91	1.32	0.02	−0.02	−0.07	−0.02	−0.26**	0.36**	0.29**	0.19**	0.23**	0.29**	(0.89)		
12 Uncertainty	3.90	1.32	0.03	−0.05	−0.01	−0.05	−0.17**	0.25**	0.40**	0.27**	0.21**	0.34**	0.47**	(0.86)	
13 Support[a]	64.09	16.7	0.02	0.14**	0.11*	0.34**	0.34**	−0.14**	−0.04	0.08	0.06	0.04	−0.20**	−0.26**	1

Notes: $n = 363$. PA, positive affectivity trait; NA, negative affectivity trait; OCS, organizational change saturation. Mean computed from frequency, extent and impact. Cronbach's αs are in parenthesis. [a]Behaviorally anchored scale. *$p < 0.05$; **$p < 0.01$

complementary components of the excessive-change measure. The operational definitions of these concepts were obtained from the scarce but nonetheless significant studies discussed in the literature review. Excessive change is thus operationalized and satisfactorily validated as a three-factor structure comprising perceptions of change frequency, change impact, and change extent.

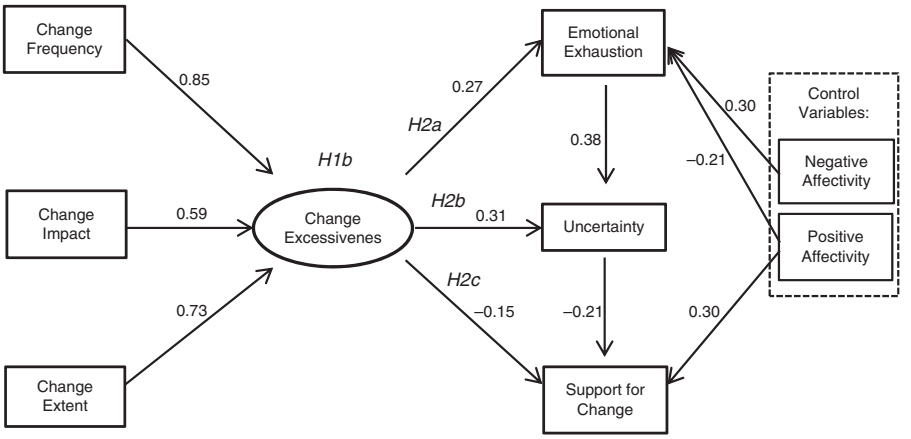
The full mediation effect of excessive change on tripartite effects. Our second contribution is to demonstrate that emotional exhaustion, cognitive uncertainty, and behavioral support for change are in direct relationships with change excessiveness as a three-component latent variable. These results demonstrate an added effect of change frequency, extent, and impact through the fully mediated effect of change excess on the explained variance of the tripartite-reaction variables, thus confirming *H1b*. Therefore, the contextual excess of change – as a measurable construct – has three distinct and important components in being conceptualized as suggested. Notwithstanding, as Stensaker *et al.* (2002) and Rafferty and Griffin (2006) argued, more studies and practices are needed on the contextual and general aspects of change itself as seen from the perspective of recipients. This study answered this call and offers three distinguishable and manageable dimensions to the contextual problematic as stated by *H1a*.

This study also presents a model suggesting that the tripartite-reaction approach (Oreg *et al.*, 2011) reveals interesting results. The cognitive factor change-related uncertainty had a significant direct path to the affective outcome (i.e. exhaustion)

Model	χ^2/df	CFI	NNFI	RMSEA	SRMR
1: 3-factor	4.20*	0.94	0.95	0.09	0.05
2: 2-factor (impact)	6.28*	0.92	0.92	0.12	0.06
3: 2-factor (extent)	10.87*	0.84	0.84	0.17	0.12
4: 2-factor (frequency)	16.78*	0.75	0.75	0.21	0.13
5: 1-factor	18.83*	0.70	0.71	0.22	0.11

Notes: Factor labels in parenthesis are indicating which of the factor is differentiated from the two others in CFA tests. *Significant χ^2 ($p < 0.05$)

Table III.
Alternative CFA model comparison



Notes: n=363. All estimates are significant at p<0.01

Figure 1.
Study 2 standardized structural equation model

($\beta = 0.38$, $p < 0.01$), whereas the latter had a significant direct path to the behavioral outcome (i.e. support for change) ($\beta = -0.15$, $p < 0.05$). As our findings suggest, the tripartite reaction is only partially explained by individual affectivity traits, whereas the excessive change factors are not confounded with affectivity. Therefore, excessive change may be managed in part through individual, group, and organizational perspectives of organized action since the dispositional factors are present while not dominant in the findings.

Managerial implications

The potential of change excessiveness in healthcare settings. It appears that change management practitioners and researchers should continue the already extensive work on the situated and managerial dimensions of organizational change in order to identify interventions that could influence change excess levels and the tripartite outcome. There are multiple implications for healthcare management settings undergoing major change episodes.

The observed excess levels are somewhat high for both samples. Overall, any factor showed really low levels of excessiveness, while some participants in both samples reported really high or maximum levels. Considering the relationships found with uncertainty, exhaustion, and support for change levels, it is of utmost importance to address the perceived demands that are put on these individuals' resources.

The effects of change excessiveness in healthcare settings. The tripartite reaction to change was selected and measured as it is potentially related to change excessiveness, but also because it is an important outcome in the healthcare management literature. Emotional exhaustion is indeed a major issue and has been shown to have a relationship with personnel's withdrawal and intentions to quit in Jourdain and Chênevert's (2010) work. In the present context of nurse shortages (Simoens *et al.*, 2005), change excessiveness appears to be related with higher demands on emotional resources.

Cognitive uncertainty is an important outcome to manage in organizational change (Rafferty and Griffin, 2006), and it is a major issue in managerial and clinical operations in healthcare administration (Saltman, 2008). On the macro-level, a particular tension in the change-stability paradox (Klarner and Raisch, 2013) occurs in healthcare institutions: namely, constant organizational change is needed to stay competitive, but such changes bring uncertainty, which in turn disrupt the necessary stability created through certainty. Future research should continue to explore this paradox in this sector, for which uncertainty is reported as highly negative (Saltman, 2008).

Herscovitch and Meyer (2002) already found that behavioral support for nurses is related to change intensity. Moreover, obtaining support and managing change resistance is one of the most important outcomes in change management (Oreg *et al.*, 2011). Even if change excessiveness is somewhat high, and considering it is related to support for change, both samples' participants still showed interesting levels of behavioral cooperation (Sample 1: 65, SD = 17.35; Sample 2: 64.1, SD = 16.7) on a 101-point scale. These scores correspond to the low end of the "cooperation" scale between compliance and championing. Future research should explore two possible lines: first, longitudinal studies can address the long-term effects of change excessiveness on behavioral support throughout the length of a major change; and second, it could be interesting to study what significant resources – psychological, organizational, and managerial – enable employees to support a change in an excessiveness context.

Limitations and future research

A first limitation of this study, as suggested by its introductory characterization of excessive change, focusses on the individual level of analysis, both for its hypotheses testing and for its control factors. Subsequent studies should explore other organizational levels in relationship to perceived excessiveness thresholds. A second limitation stems from the reverse-causality postulate. This study uses SEM techniques and dispositional affects to control its findings and reduce multiple error sources, but it still cannot support a non-reversible causality interpretation. A third limitation comes from the fact that both samples were drawn from the public healthcare sector. Further research is needed in order generalize these findings to other sectors and organizations. Moreover, a generalization study should attempt to reduce the level of error of approximation reported by the CFA results. As the goodness-of-fit indices are satisfactory and the hypothesized model is observed as a representative solution, the RMSEA appear somewhat high (0.09). Finally, future research should aim to study the individual (e.g. self-concept: McConnell and Strain, 2007) and social (e.g. person-team fit: Burch and Anderson, 2004) as potential resources when facing the demands of excessive organizational change.

Conclusion

Given today's organizational tendency to drive through excessive change (Stensaker *et al.*, 2002) or to cause "repetitive change syndrome" (Abrahamson, 2004), it is important that we know when employees are becoming saturated with change. A top-down official or strategic perspective based purely on the views of senior managers does not suffice – even if it does consider the three dimensions mentioned in this paper. If changes are frequent, extended, and highly impactful, as suggested, they will be perceived very differently by employees than probably anticipated in top managers' detailed project plans. This work provides a new diagnostic rooted in employees' experience of organizational change at the ground level that will provide a far more realistic and rounded picture of change saturation.

References

Abrahamson, E. (2004), "Avoiding repetitive change syndrome", *MIT Sloan Management Review*, Vol. 45 No. 2, pp. 93-95.

Anderson, J.C. and Gerbing, D.W. (1988), "Structural equation modeling in practice: a review and recommended two-step approach", *Psychological Bulletin*, Vol. 103 No. 3, pp. 411-423.

Bovey, W.H. and Hede, A. (2001), "Resistance to organizational change: the role of defence mechanisms", *Journal of Managerial Psychology*, Vol. 16 No. 7, pp. 534-548.

Burch, G. J. St and Anderson, N. (2004), "Measuring person-team fit: development and validation of the team selection inventory", *Journal of Managerial Psychology*, Vol. 19 No. 4, pp. 406-426.

Caldwell, S.D., Herold, D.M. and Fedor, D.B. (2004), "Toward an understanding of the relationships among organizational change, individual differences, and changes in person-environment fit: a cross-level study", *Journal of Applied Psychology*, Vol. 89 No. 5, pp. 868-882.

Costello, A.B. and Osborne, J.W. (2005), "Best practices in exploratory factor analysis: four recommendations for getting the most from your analysis", *Practical Assessment, Research & Evaluation*, Vol. 10 No. 7, pp. 1-9, available at: http://pareonline.net/getvn.asp?v=10&no=7

Cunnigham, G.B., Woodward, C.A., Shannon, H.S., MacIntosh, J., Lendrum, B., Rosenbloom, D. and Brown, J. (2002), "Readiness for organizational change: a longitudinal study of workplace, psychological and behavioral correlates", *Journal of Occupational and Organizational Psychology*, Vol. 75 No. 4, pp. 377-392.

Ferris, D.L., Brown, D.J., Berry, J.W. and Lian, H. (2008), "The development and validation of the workplace ostracism scale", *Journal of Applied Psychology*, Vol. 93 No. 6, pp. 1348-1366.

Herold, D.M., Fedor, D.B. and Caldwell, S.D. (2007), "Beyond change management: a multilevel investigation of contextual and personal influences on employees' commitment to change", *Journal of Applied Psychology*, Vol. 92 No. 4, pp. 942-951.

Herscovitch, L. and Meyer, J.P. (2002), "Commitment to organizational change: extension of a three-component model", *Journal of Applied Psychology*, Vol. 87 No. 3, pp. 474-487.

Hinkin, T.R. (1998), "A brief tutorial on the development of measures for use in survey questionnaires", *Organizational Research Methods*, Vol. 1 No. 1, pp. 104-121.

Howell, W.C. and Burnett, S.A. (1978), "Uncertainty measurement: a cognitive taxonomy", *Organizational Behavior and Human Performance*, Vol. 22 No. 1, pp. 45-68.

Hu, L. and Bentler, P.M. (1999), "Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives", *Structural Equation Modeling*, Vol. 6 No. 1, pp. 1-55.

Johnson, J.A. and Boss, R.W. (1991), "Management development and change in a demanding health care environment", *Journal of Management Development*, Vol. 10 No. 4, pp. 5-10.

Jourdain, G. and Chênevert, D. (2010), "Job demands-resources, burnout and intention to leave the nursing profession: a questionnaire survey", *International Journal of Nursing Studies*, Vol. 47 No. 6, pp. 709-722.

Jourdain, G. and Chênevert, D. (2015), "The moderating influence of perceived organizational values on the burnout-absenteeism relationship", *Journal of Business and Psychology*, Vol. 30 No. 1, pp. 177-191.

Klarner, P. and Raisch, S. (2013), "Move to the beat: rhythms of change and firm performance", *Academy of Management Journal*, Vol. 56 No. 1, pp. 160-184.

Lazarus, R.S. and Folkman, S. (1984), *Stress, Appraisal, and Coping*, Springer Publishing Company, New York, NY.

Leiter, M.P. and Schaufeli, W.B. (1996), "Consistency of the burnout construct across occupations", *Anxiety, Stress, and Coping*, Vol. 9 No. 3, pp. 229-243.

Maslach, C. (1982), *Burnout: The Cost of Caring*, Prentice Hall, Englewood Cliffs, NJ.

Maslach, C. and Jackson, S.E. (1981), "The measurement of experienced burnout", *Journal of Occupational Behavior*, Vol. 2 No. 2, pp. 99-113.

McConnell, A.R. and Strain, L.M. (2007), "Content and structure of the self", in Sedikides, C. and Spencer (Eds), *The Self in Social Psychology*, Psychology Press, New York, pp. 51-73.

Monge, P.R. (1995), "Theoretical and analytical issues in studying organizational processes", in Huber, G.P. and Van de Ven, A. (Eds), *Longitudinal Field Research Methods: Studying Processes of Organizational Change*, Sage, London, pp. 406-430.

Moyle, P. (1995), "The role of negative affectivity in the stress process: tests of alternative methods", *Journal of Organizational Behavior*, Vol. 16 No. S1, pp. 647-668.

Oreg, S. (2006), "Personality, context, and resistance to organizational change", *European Journal of Work and Organizational Psychology*, Vol. 15 No. 1, pp. 73-101.

Oreg, S., Vakola, M. and Armenakis, A. (2011), "Change recipients' reactions to organizational change – a 60-year review of quantitative studies", *The Journal of Applied Behavioral Science*, Vol. 47 No. 4, pp. 461-524.

Paulsen, N., Callan, V.J., Grice, T.A., Rooney, D., Gallois, C., Jones, E. and Jimmieson, N.L. (2005), "Job uncertainty and personal control during downsizing: a comparison of survivors and victims", *Human Relations*, Vol. 58 No. 4, pp. 463-496.

Peach, M., Jimmieson, N.L. and White, K.M. (2005), "Beliefs underlying employee readiness to support a building relocation: a theory of planned behavior perspective", *Organization Development Journal*, Vol. 23 No. 3, pp. 9-22.

Pierce, J.R. and Arguinis, H. (2013), "The too-much-of-a-good-thing effect in management", *Journal of Management*, Vol. 39 No. 2, pp. 313-338.

Rafferty, A.E. and Griffin, M.A. (2006), "Perceptions of organizational change: a stress and coping perspective", *Journal of Applied Psychology*, Vol. 91 No. 5, pp. 1154-1162.

Ruscio, J. and Roche, B. (2012), "Determining the number of factors to retain in an exploratory factor analysis using comparison data of a known factorial structure", *Psychological Assessment*, Vol. 24 No. 2, pp. 282-292.

Saltman, D. (2008), "Risk and uncertainty: two different entities with different management activities or part of the same spectrum", *Journal of Evaluation in Clinical Practice*, Vol. 14 No. 6, pp. 959-960.

Senior, B. and Swailes, D.S. (2010), *Organizational Change*, 4th ed., Pearson Education, Harlow.

Simoens, S., Villeneuve, M. and Hurst, J. (2005), "Tackling nurse shortage in OCED countries", available at: www.oecd.org/ (accessed November 2015).

Stensaker, I.G. and Meyer, C.B. (2012), "Change experience and employee reactions: developing capabilities for change", *Personnel Review*, Vol. 41 No. 1, pp. 106-124.

Stensaker, I.G., Falkenberg, J., Meyer, C.B. and Haueng, A.C. (2002), "Excessive change: coping mechanisms and consequences", *Organizational Dynamics*, Vol. 31 No. 3, pp. 296-312.

Watson, D., Clark, L.A. and Tellegen, A. (1988), "Development and validation of brief measures of positive and negative affect: the PANAS scales", *Journal of Personality and Social Psychology*, Vol. 54 No. 6, pp. 1063-1070.

Wright, T.A. and Cropanzano, R. (1998), "Emotional exhaustion as a predictor of job performance and voluntary turnover", *Journal of Applied Psychology*, Vol. 83 No. 3, pp. 486-493.

Yung, P., Fung, T.M., Chan, T.M. and Lau, B. (2004), "Relaxation training methods for nurse managers in Hong Kong: a controlled study", *International Journal of Mental Health Nursing*, Vol. 13 No. 4, pp. 255-261.

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