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#### **ORIGINAL ARTICLE**

# The relationship between context, attitudes and well-being in organizational change

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ABSTRACT - A model was proposed to assess whether attitudes mediate the relationship between the context of organizational change and well-being. A quantitative study was conducted to test the model in three Brazilian public organizations that underwent organizational change processes. Seven hundred, ninety-five employees answered the organizational change context attributes scale, attitudes toward organizational change scale and scale of well-being in the workplace. Analyses of validity and reliability were carried out for all measures using three different samples, while Path Analysis were performed to test the mediation model. The model was partially corroborated suggesting the influence of attitudes and attributes of change on the well-being. In addition, the study provides mediation as a methodological strategy that can be used in further research.

Keywords: organizational change, organizational environment, attitude, well-being.

# A relação entre atributos, atitudes e bem-estar na mudança organizacional

**RESUMO** - Um modelo para avaliar se atitudes medeiam a relação entre os atributos de mudança organizacional e o bemestar foi testado com uma amostra de 795 trabalhadores oriundos de três diferentes organizações públicas que passaram por processos de mudança organizacional. Três instrumentos foram aplicados pela internet, a saber: Escala dos atributos da mudança organizacional, escalas de atitudes frente a mudança organizacional e de bem-estar no trabalho. Diferentes amostras foram utilizadas para análises fatoriais confirmatórias das escalas e os resultados indicaram bons índices de validade das estruturas originais das escalas. Análises de trajetória – *Path Analysis* – foram realizadas para testar o modelo de mediação. O modelo foi parcialmente corroborado apontando a influência das atitudes e dos atributos de mudança no bem-estar.

Palavras-chave: mudança organizacional, contexto organizacional, atitude, bem-estar.

The study of behavioral and affective aspects is a highlight in the topic of organizational change, because of the increasingly recognition of the importance of employees' reactions for successful interventions (Bordia, Restubog, Jimmieson & Irmer, 2011; Fugate, Prussia & Kinicki, 2012; Oreg, Vakola & Armenakis, 2011). Therefore, the capacity of the organization to understand and implement changes emerges as a crucial differential (Van de Ven & Sun, 2011). The successful corporations are those capable of predicting change and developing their strategies in advance (Neiva & Paz, 2012, Van de Ven & Sun, 2011).

The exclusive use of productivity and results indicators does not comprise the human aspects contained in the process of organizational change (Neiva & Paz, 2012, Oreg, Vakola & Armenakis, 2011, Van de Ven & Sun, 2011), because the implementation of organizational changes demands employees to adopt the new practices and behaviors required to the process.

Organizational change could be conceptualized as a set of events occurring in the internal context of the organization and that, regarding individuals, typically brings about reactions against the process (Neiva & Paz, 2012). Studies show that negative effects on the well-being resulting from organizational changes are associated with the generation

of uncertainties and losses of job posts (Green, 2011), workers' overload and stress (Dahl, 2011) and increased anxiety (Bryson, Barth & Dale-Olsen, 2013). Context characteristics are an important antecedent of explicit reactions to organizational change (Neiva & Paz, 2012, Nery & Neiva, 2015, Oreg, Vakola & Armenakis, 2011) that can be expressed in positive or negative terms. These reactions have cognitive, affective and behavioral components. Assuming that attitudes regarding changes are considered to be evaluative and affective, positive or negative reactions towards the events and processes taking place in the organization, and that attitudes have impact on the other human affections (Lazarus & Folkman, 1984), one can suggest a relationship with the well-being of individuals in specific contexts of organizational change (Bryson, Barth & Dale--Olsen, 2013, Dahl, 2011).

The objective of this study is to test the relationship between the attributes of the organizational change context (planning/preparation and degree of risk of the change), the individuals' attitudes in face of changes (acceptance, fear and opposition) and well-being at work. Although attitudes have been pointed out as mediators of the relationships between attributes of change and individuals' behavior (Neiva & Paz, 2012, Nery & Neiva, 2015), these have never been tested as well-being antecedents (Neiva & Paz, 2012). To identify this relationship, attitudes towards changes are the mediating

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variable in this study. Therefore, it intends to test a mediation model that has never been investigated in previous studies.

implementation and management of the process of change (Self, Armenakis & Schraeder, 2007).

#### The context of organizational change

There is a need to identify the pertinent characteristics to define the organizational change context, and how these affect behavior, affects and cognitions of individuals (Kalimo, Taris & Schaufeli, 2003, Maes & Van Hootegem, 2011, Rafferty & Restubog, 2010, Rafferty & Griffin, 2006). Eight attributes that dynamically describe organizational change were listed (Maes & Van Hootegem, 2011):

- Control: refers to the emergent or planned change;
- Scope: refers to the continuum of adaptation to change;
- Frequency: refers to the number of organizational changes taking place;
- Progress: is the number of stages to implement a change;
- Time: is how long change implementation will last;
- Speed: refers to the pace of succession of actions of change;
- Objectives: refer to the final status, when change is made;
- Leadership style and decision-making: defined by the degree of participation that can range according to the degrees of cooperation and participation.

Some factors of the context of change have deserved attention (Oreg, Vakola & Armenakis, 2011), notably studies on to which extent interventions for change are planned (Nery & Neiva, 2015, Kalimo, Taris & Schaufeli, 2003), the organization background regarding change, future perspectives with new change processes (Cunningham, 2006; Devos, Buelens & Bouckenooghe, 2007; Kalimo, Taris & Schaufeli, 2003), intensity of the change process (Cunningham, 2006), frequency of occurrence of interventions, degree of risk of the organizational change (Nery & Neiva, 2015, Devos, Buelens & Bouckenooghe, 2007), degree of imposition of changes by senior management, and support provided to workers (Neiva, Odelius & Ramos, 2015).

In the international setting, studies point out that context attributes related to planning and efforts towards organization change have great impact on the communication and reaction of workers (Self, Armenakis & Schraeder, 2007, Van de Ven & Sun, 2011). That is so because when an organization plans in advance the change-related actions, workers tend to perceive these as less threatening (Cunningham, 2006, Dahl, 2011, Devos, Buelens & Bouckenooghe, 2007).

The context of change analyzed as antecedent variable herein is structured on two dimensions: planning, preparation and previous experiences (PPEAM) and the degree of risk of the change. It is also suggested that actions on change planning addressed to increase involvement in the process are associated with positive attitudes towards the organizational change (Nery & Neiva, 2015, Rafferty & Restubog, 2010) and supportive behaviors (Kim, Hornung & Rosseau, 2011). The risk degree of the change could be associated with the individuals' openness towards accepting the change process and emitting the expected behaviors during the process (Oreg, Vakola & Armenakis, 2011, Devos, Buelens & Bouckenooghe, 2007). Finally, the identification of context attributes that influence on organizational changes is an advantage to the change agents, since that knowledge facilitates the

## Attitude towards organizational changes

At the start of a process of changes in an organization, the first experiences and information about change are enough to bring about several cognitions and feeling such as frustration, enthusiasm or fear (Choi, 2011, Bouckenooghe, 2010, Lines, 2005). Individual may have emotional reactions in the first contacts with a change, causing feelings such as frustration, enthusiasm or fear (Choi, 2011; Bouckenooghe, 2010; Lines, 2005). On the other hand, changes can be positively perceived when these eliminate rework and unnecessary routines, and also maximize opportunities of growth and development to workers (Kruglanski, Higgins & Capozza, 2007).

There is an increasing need for surveys on the effects that attitudes towards organizational change have on employees (Choi, 2011; Dahl, 2011), considering that workers' attitude towards organizational change are critical aspects to the success of any organizational change. That is so because these attitudes predispose individuals to act in a given way in relation to an object (Oreg, Vakola & Armenakis, 2011).

The efforts to plan change in advance make change more predictable, provide more information to people on the imminence of changes and the likely duration of the process of change (Nery & Neiva, 2015, Neiva, Odelius & Ramos, 2015). Moreover, planning change implementation helps workers to perceive the change as less threatening (Cunningham, 2006, Devos, Buelens & Bouckenooghe, 2007), which shapes people's feelings and viewpoints on the change (Vakola, Tsaousis & Nikolaou, 2004). The occurrence of positive attitudes - attitudes of acceptance - during the process of change enables the occurrence of behaviors to fit individuals into changes, increasing the possibility of successful initiatives (Nery & Neiva, 2015, Neiva & Paz, 2012). On the other hand, negative attitudes in relation to changes, like fear and skepticism, could have the opposite effect, reducing the probability of supportive behavior among employees (Neiva & Paz, 2012).

Hypotheses 1 and 2 herein assume that the planning of organizational changes and the degree of risk perceived by employees can influence their evaluations about the change process (Nery & Neiva, 2015, Neiva, Odelius & Ramos, 2015, Devos, Buelens & Bouckenooghe, 2007). Planning as attribute of the context can affect the cognitive evaluation and affect that individuals address to this objective (Weinner, 2009).

H1: The planning and preparation of organizational changes are positively associated with attitudes of acceptance, and negatively associated with attitudes of fear and opposition during the process of change.

According to literature, the more threatening the change, more workers will present negative behaviors in relation to it (Bordia, Restubog, Jimmieson & Irmer, 2011). Therefore, radical changes involving uncertain and unplanned movements, like downsizing and abolishment of work posts, tend to make workers more resistant to the process. Another study shows that radical changes are usually perceived as traumatic, and reduce the employee's commitment, generate resistance, hard feelings and, in some cases, boycotts (Dahl,

2011, Kruglanski, Higgins & Capozza, 2007). Therefore, the highest the impact of restructuring, more negative responses to change such as anger, cynism and feeling of uncertainty at work (Greenglass & Burke, 2000). This relationship gives rise to the following hypothesis:

H2: The degree of risk and uncertainties about the organizational changes are negatively associated with attitudes of acceptance, and positively associated with attitudes of fear and opposition during the process of change.

#### Well-being at work

Well-being corresponds to affective and cognitive aspects suchas evaluation of the organizational environment (Dessen & Paz, 2010). Some authors describe well-being as the fulfillment of the individuals' needs and desires when performing their duties in the organization (Dessen & Paz, 2010). The well-being of collaborators may be influenced by the organizational change, and the implementation of organizational changes is related with the context wherein changes take place, the cognitive traits employed by the individual to construe them, and the opinion of other individuals about the process (Dahl, 2011; Green, 2011).

Literature emphasizes the influence of factors of the context of change both on attitudes (Bordia et al., 2011, Nery & Neiva, 2015) and on well-being (Cunningham, 2006; Rafferty & Griffin, 2006; Rafferty & Restubog, 2010). During the implementation of changes, individual may be required to present new behaviors demanded by changes. However, changes can bring out unplanned effects like denial, resistance, stress, cynism, reduced commitment or illness among employees. These effects are potential indicators of the (lack of) success of the actions for change (Fugate et al., 2012; Oreg et al., 2011; Self et al., 2007). Downsizing influence the well-being of employers with increased turnover (Fugate et al., 2012, Rafferty & Restubog, 2010), high levels of burnout, Cortisol and testosterone (Dahl, 2011), low indexes of well-being, stress, cardiovascular symptoms (Dahl, 2011), absenteeism (Burke & Greenglass, 2000; Cunningham, 2006), psychosomatic symptoms (Burke & Greenglass, 2000), and other forms of diseasing (Harenstam et al., 2004).

Employees can be more prone to support organizational changes if there is a feeling of trust and attachment to the organization, or when the organization is concerned about quality of life at the workplace (Fugate et al., 2012; Rafferty & Restubog, 2010, Cunningham, 2006). Planning and differentiated communication strategies to the different phases of organizational change could have an important impact on to which degree employees accept the change (Bryson, Barth & Dale-Olsen, 2013) and effects on other affects and cognitions of employees, according to evaluative models of emotions and affects (Lazarus & Folkman, 1984). Therefore, when an organization plans the process of change ensuring trust through information, transparency in process and care to the quality of life of workers, it can ensure positive impacts on their well-being. This brings about other hypotheses:

H3: The planning and preparation of organizational changes are positively associated with the well-being of employees during the process of change.

Other studies report that processes of change with high degree of risk reduce the feeling of well-being, increase the levels of dissatisfaction and stress at work, and reduce trust in the organization (Bryson, Barth & Dale-Olsen, 2013; Noblet & Rodwell, 2008). Studies show that negative effects on the well-being resulting from organizational changes are associated with the generation of uncertainties and losses of job posts (Green, 2011), workers' overload and stress (Dahl, 2011) and increased anxiety (Bryson, Barth & Dale-Olsen, 2013). Moreover, the evaluations of threat are positively related to absenteeism, inertia and voluntary separations (Fugate, Prussia & Kinicki, 2012).

H4: The degree of risk and uncertainties of organizational changes are negatively associated with the well-being of employees during the process of change.

The context characteristics are an important antecedent of explicit reactions to the organizational change (Neiva & Paz, 2012, Nery & Neiva, 2015) that, in turn, can be expressed in positive or negative terms, and have cognitive, affective and behavioral components as attitudes (Neiva & Paz, 2012; Oreg, Vakola & Armenakis, 2011). Assuming that attitudes towards changes also have impact on the remainder human affects, according to the evaluative models of emotions and affects Lazarus & Folkman, 1984), so we can suggest a relationship with the well-being of individuals in specific contexts of organizational change (Bryson, Barth & Dale-Olsen, 2013; Dahl, 2011).

H5: Attitudes of acceptance, opposition and fear mediate the link between planning and preparation of organizational changes and the well-being of employees during the process of change.

H6: Attitudes of acceptance, opposition and fear mediate the link between degree of risk and uncertainties of organizational changes and the well-being of employees during the process of change.

Figure 1 illustrates the relationships hypothesized in the text

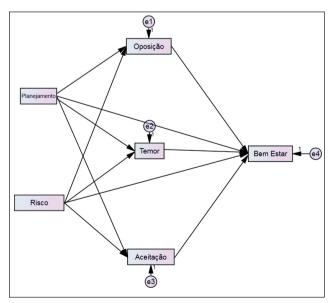


Figure 1. Research model

#### Method

## Description of organizations and contexts of changes

The survey comprised employees and service providers of three public organizations in the field of electric power services in Brazil, and in the field of delivering professional selection and public contest services. Organization 1 is a public-private partnership in the segment of electric power generation and transmission. Organization 2 is a company working in the field of electric power distribution and sale. Finally, Organization 3 is a social organization in the field of evaluation, selection and promotion of events. After the bibliographic and documentary survey, we found that the three organizations had undergone strategic repositioning due to governmental pressure and the new regulatory process, including changes on their mission, new brand, implementation of new offices, stricter rules for career development, implementation of performance assessment program, and structural changes on leadership.

# Sample

Organization 1 had 3,800 employees and 164 service providers. Altogether, 1,600 employees were invited to participate in the survey. Of these, only 575 employees completed the survey, with a return rate of 47%. Organization 2 has 298 employees, of which 130 have been selected, but only 55 responded to the scales, with return rate of 42%. Organization 3 has 392 employees, and 165 participated in the research, with a return rate of 41%. Total sample comprised 795 employees participating.

Data were demographically analyzed by sex and office held in the organizations. Most of the participants are men (75%). Most of the employees hold university (38%) and post-graduate (21%) degree. Regarding offices held, 46.5% work in the ore area, 39.2% in the intermediary area of operations, and 14.3% in other areas of the organizations.

### **Instruments**

Scale of Attributes of the context of organizational change. Three instruments were used to this survey to evaluate: the attributes of the context of change; attitudes in face of the organizational change; and, well-being of employees. The instruments were subject to confirmatory factorial analyses using samples that comprised five organizations in the Federal District. The first instrument used was the Scale of Attributes of Organizational Change - previously named context (Nery & Neiva, 2015). The scale has to factors. The first one refers to planning, preparation and experiences prior to change (PPEAM) and evaluates the employees' perceptions about the preparations that preceded the changes. The factor of degree of risk and impact of changes is related to the employees' perceptions about aspects resulting from the implementation of change and that could affect the individual and the organization. The Scale of Attributes of Organizational Change has 21 items with factor loadings above 0.45 and Cronbach's alphas higher than 0.74. All items are evaluated according to the scale, ranging from 0 (fully disagree) to 10 (fully agree). Example of item: "The organization underwent many changes in the last few years". A second sample with 475 respondents was used to the confirmatory factorial analysis. The assumptions of normality, linearity and homogeneity of variances were previously analyzed, in addition to problems related to multicollinearity and singularity. All analyses considered the matrix of covariance, and the estimation method adopted was that of Maximum Likelihood.

The first confirmatory factorial analysis comprised all items part of the scale factors. However, the model was not specified. Therefore, we decided for a leaner solution that included only items with load higher than 0.60. The test of models fitting proposed considered the following indexes: ratio between chi-square ( $\chi^2$ ) and degrees of freedom (gl), NFI, TLI, CFI, GFI, AGFI and RMSEA (Hox, 2010). In this study the fitting indexes found in the confirmatory factorial analysis to the scale of Attributes of Organizational Change, the following were considered acceptable: [ $\chi^2$  (31, N = 475) = 113.24, p < 0.005;  $\chi^2$ /gl = 3.53; NFI = 0.95; TLI = 0.97; CFI = 0.97; GFI = 0.95; AGFI = 0.92; RMSEA (IC) = 0.07 (0.06-0.08)].

Attitudes in face of the organizational change. The attitudes in face of organizational change were measured through the Scale of Attitude in face of Organizational Change (EAMO) of three factors (acceptance, fear and skepticism) made up by 46 items with weights above 0.45 and Cronbach's alpha higher than 0.85, with evidences of validity in the study by Neiva, Ros and Paz (2005). Example of item: "Changes oxygenate the organization". The confirmatory factorial analysis of the scale of attitudes in face of organizational change comprised 419 subjects from five different organizations in the Federal District. Only the items with factor loading above 0.50 were selected, and results showed Goodness-of-Fit for the three factors:  $\chi^2$  (38, N = 419) = 108.24. p < 0.005;  $\chi^2$ /gl = 2.84; TLI = 0.96, CFI = 0.96, GFI = 0.95; NFI = 0.95, RMSEA (IC) = 0.06 (0.04-0.08)].

**Well-being in organizations.** Finally, the individual well-being in organizations was measured using the Well-being Scale. This is a one-factor instrument made up by 15 items with factor loading above 0.45 and Cronbach's alpha. The evidences of validity for this instrument were provided in a previous study (Dessen & Paz, 2010). Example of item: "I feel good working here". The original well-being instrument has 15 items; however, due to a system error, only 14 items were registered on the database. The confirmatory factorial analysis comprises a sample of 367 cases from five organizations in the Federal District. The results of the unifactorial structure of the 14 items showed good Goodness-of-fit:  $\chi^2$  (34, N = 367) = 129.49, p < 0.005;  $\chi^2/gl = 3.81$ ; TLI = 0.95, CFI = 0.96, GFI = 0.93; NFI = 0.95, RMSEA (IC) = 0.09 (0.74-0.11)].

# **Procedures**

When the organizations agreed on participating in the survey, participants were drawn and e-mails were sent to

collaborators, explaining the survey objectives, procedures and the online survey address. For data collection, instruments were inputted in the online software LimeSurvey. When the research instruments were accessed, instructions were displayed and the assurance of anonymity and confidentiality was reinforced to participants.

The assumptions of the multivariate statistical analyses were analyzed to the data analysis. Confirmatory factorial analyses were performed using structural equations to verify the factorial structure of all instruments applied. The model and mediation relationships were tested through structural equations and bootstrapping.

To test the influence of the common method variance, a model of a factor that showed no acceptable Goodness-of-fit (NFI = 0,46; CFI = 0,39 e NNFI = 0,49) was used. The model with one single factor was used to evaluate any potential effect of the common method variance (Podsakoff, MacKenzie, Lee & Podsakoff, 2003). When this model has no fitting, we conclude that variance of the common method is not enough to explain the results found.

To the tests of hypotheses and general evaluation of the model, it was considered the goodness-of-fit of models with relationship between the research variables, as prescribed by Kline (2010), MacKinnon & Fairchild (2007), Preacher, Zyphur & Zhang (2010) and Preacher & Selig (2012). Figure 2 presents the model testes through structural equation modeling.

#### Results

To test the hypotheses present and to the overall evaluation of fitting, the model indicated in Figure 2 was submitted to evaluation using structural equations. The initial model presented good goodness-of-fit indexes, although the relation between the chi-square and degrees of freedom - CMIN/DF - was 34.92, very far from 2.0, as recommended by Kline (2010). The remainder goodness-of-fit indexes were adjusted (GFI = 0.93; CFI = 0.95; NFI = 0.93; TLI = 0.73), but residues were considered high (RMSEA = 0.16; IC 95% [0.11; 0.18]). Based on suggestions by the AMOS software, the model was re-specified - the goodness-of-fit indexes for these models are presented in table 1.

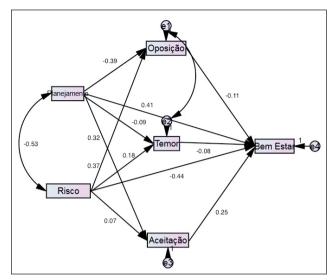


Figure 2. Re-specified model testes by the survey

Based on the goodness-of-fit indexes suggested by the AMOS software, we added a correlation between exogenous variables, change planning and degree of risk of changes, in addition to a correlation between errors of the fear and opposition attitudes. This led to a significant reduction of the residue presented by the model and the relation between chi-square and degrees of freedom. According with Kline (2010), few correlations between errors can be accepted to improve the goodness-of-fit of the model.

The altered model presented good goodness-of-fit indexes, despite the 15.92 CMIN/DF which is very far from 2.0, as recommended by Kline (2010). Considering this is a large sample of observations (795 cases), Hair, Black, Babin, Anderson & Tatham (2009) accept a high chi-square value and a CMIM/DF value higher than 2. The remainder goodness-of-fit indexes that consider the sample size were responsive (GFI = 0.97; CFI = 0.98; NFI = 0.97; TLI = 0.89), although the residue was considered high (RMR = 0.06; RMSEA = 0.09. IC[0.06; 0.11]). Therefore the results of the final model fitting were considered highly acceptable. Table 1 shows the comparison between the goodness-of-fit indexes of the models.

Table 1. Comparison between models

Models	GFI	CFI	NFI	TLI	RMSEA	CI 95%
Initial model	0,93	0,95	0,95	0,83	0,12	0,08-0,12
Final model adjusted (Amos)	0,97	0,98	0,97	0,89	0,09	0,06 – 0,11

The second stage of analysis comprised the evaluation of the hypothesized relationships and the mediating effects. The mediation model in this study is considered complex, because it has more than one mediating variable (Preacher, Zyphur & Zhang, 2010). Here, mediation was verified using structural equations, observing the magnitude and significance of the indirect effects through bootstrapping.

Indirect effects are estimated based on a population sample, and are results of the estimates on regression coefficients. Significant indirect effects are a measure analogous to the use of other methods that suggest the significances of the regression interaction effects (Preacher & Selig, 2012). To that, several analyses were performed with sub-models to check the sign, magnitude and significance of coefficients.

Table 2 shows the results of the mediation analyses. The results of the test on attitudes mediation in face of organizational change to the well-being variable corroborate the hypothesis that attitudes of acceptance and skepticism mediate the relationship between planning and well-being.

The attitude of fear does not mediate the relationship between planning and well-being of workers in the context of organizational change. The attitudes in relation to change do not seem to mediate the relationships between the degree of risk and well-being in organizations.

Table 2. Result of the mediation test to the variable criterion

	Dependent variable: well-being				
Variables		Indirect effct	Comment		
Well-being planning	0.41**	0.41**	Partial mediation		
Risk - well-being	-0.55**	-0.44**	Partial mediation		
Planning $\rightarrow$	0.22**	0.22**	Partial mediation		
Acceptance	0.32**	0.32**			
$Planning \rightarrow$	-0.09	0.07	No mediation		
Fear	-0.09	-0.07			
Planning $\rightarrow$	-0.39**	-0.35**	Partial mediation		
Skepticism	-0.39	-0.33	i aitiai illediatioil		
Risk→	-0.07 ns	-0,003 ns	No mediation		
acceptance	-0.07 113	-0,003 Hs			
Risk→	0.18**	0,04 ns	No mediation		
Fear	0.18	0,04 118			
Risk→	0.37**	-0,01 ns	No mediation		
Skepticism	0.37	-0,01 118			
Fear - Well-being	-0.09	0,02 ns No mediation			
Skepticism - Well-being	-0.11**	-0.11**	-0.11** Partial mediation		
Acceptance - Well-being	0.25*	0.25*	Partial mediation		

<sup>\*</sup> $p \le 0.001$ ; \*\* $p \le 0.05$ ; ns = nonsignificant

In Table 3, the hypothesis H1 was partially corroborated, because the attitudes of acceptance were positively associated with planning ( $\beta=0.32; p=0.000$ ), while the opposition attitudes were negatively associated with planning ( $\beta=-0.39; p=0.000$ ). However, the attitudes of fear were not predicted by the planning and previous preparation of changes ( $\beta=-0.09; p=0.191$ ). The hypothesis H2 was also partially corroborated, considering that the degree of risk of changes was positively associated with the attitudes of opposition ( $\beta=0.37; p=0.021$ ) and of fear of organizational changes ( $\beta=0.18; p=0.015$ ). Nonetheless, no influence of the degree of risk on attitudes of acceptance ( $\beta=0.07; p=0.185$ ) was identified.

The study results also supported the hypothesis H3, because planning and preparation of organizational changes had positive influence on the well-being of employees during the process of changes ( $\beta=0.41;\,p=0.000$ ). Regarding the relation between risk and well-being, hypothesis H4 was also supported, since the risk of organizational changes negatively influences the well-being of employees during the process of change ( $\beta=-0.44;\,p=0.000$ ). Results point out that the more threatening the change, higher the negative impact on the employee's well-being.

Table 3. Coefficient of the relationships tested by structural equations

Relationship test	Standardized coefficient	p-value	
Planning - Opposition	-0.39	0.000	
Planning - Fear	-0.09	0.191	
Planning - Acceptance	0.32	0.000	
Risk - Opposition	0.37	0.000	
Risk - Fear	0.18	0.000	
Risk - Acceptance	0.07	0.185	
Planning - Well-being	0.41	0.000	
Risk - Well-being	-0.44	0.000	
Fear - Well-being	-0.09	0.120	
Opposition - Well-being	-0.11	0.052	
Acceptance - Well-being	0.25	0.000	

According to the bootstrapping evaluation of indirect effects presented in Table 2, there is empirical support to

the relationship of mediation of acceptance and skepticism attitudes between planning and preparation of change and the well-being of employees. However, there is no empirical support to the mediation of attitudes of fear, skepticism and acceptance in the relation between grade of risk and well-being of employees during the organizational change process. We conclude for the effect of mediation that, however, does not extinguish the direct relationship on indirect effects confirmed by bootstrapping, suggesting partial mediation.

#### Discussion

This study was designed with the general objective of investigating the relations among attributes of the context of change, attitudes (fear, acceptance and opposition) and well-being of employees during the organizational change process. These relationships were identified based on the results of this research.

The first and second hypotheses advocate that planning and preparation of changes, as well as the degree of risk, are predictors of attitudes towards the change. The results point out that attitudes of acceptance to change are significantly higher when employees perceive that the organization has planned and prepared the change. These data corroborate the literature that advocates for the importance of planning organizational change, because the perception on planning shapes the viewpoints on the change (Vakola, Tsaousis & Nikolaou, 2004) and tends to reduce unfavorable attitudes, and minimize the perception on uncertainty degree (Rafferty & Griffin, 2006; Devos, Buelens & Bouckenooghe, 2007).

Therefore, the occurrence of positive attitudes promote attitudes to fit individuals to changes, and increase the possibility of success, since large-scale organizational change is only possible if based on changes on the behavior of the organization members (Santos, Neiva & Andrade-Melo, 2013). On the other hand, negative attitudes can have the opposite effect (Neiva & Paz, 2012).

The variable of degree of risk and impact of changes was more relevant to explain the variables of attitudes of opposition and fear to changes. One can infer that as more perceived the change is as a risk to employees, more attitudinal variables of opposition and fear. This result is in line with the literature that postulates the influence of negative attitudes in relation to the organizational change on the occurrence of behaviors that hinder individuals from fitting into changes (Neiva & Brito, 2008). According to these results, one could say that hypothesis H2 was partially corroborated, contradicting Devos, Buelens and Bouckenooghe (2007), according to whom the risk of changes influences both the individuals' openness towards accepting the process of change and the emission of new behaviors to be incorporated. Therefore, additional studies are required to identify the influences of the degree of risks on the attitudes of acceptance, analyzing the effects that attitudes in face of organizational changes have on workers (Choi, 2011).

The third hypothesis assumes that planning and preparation of organizational changes are associated with the well-being of employees during the process of change. The results shown in Table 3 corroborate the hypothesis that perception on the change planning and preparation result in well-being. Efforts to plan change make it more predictable and result in positive attitudes before the change. Studies point out that when context is characterized by intensive or frequent changes, without the due planning, some undesired consequences could come about such as negative feelings, uncertainty, anxiety and different feelings to workers (Vakola, Tsaousis & Nikolaou, 2004; Devos, Buelens & Bouckenooghe, 2007). Another study shows the importance of planning to the success of the change (Devos et al., 2007), suggesting the likelihood of supportive behaviors to changes significantly higher when employees perceive that the organization has planned and prepared the change.

The fourth hypothesis suggests that the degree of risk and uncertainties of organizational changes are negatively associated with the well-being of employees during the process of change. Data here corroborate this hypothesis showing that higher risk of uncertainty of the process of change, higher the negative impact on the employees' well-being. This reinforces studies on the harmful impacts of organizational change on the employees' well-being (Greenglass & Burke, 2000a; Kivimaki *et al.*, 2000).

The analysis of mediation relationships is becoming increasingly important to understand social and psychological phenomena. The fifth and sixth hypotheses (H5 and H6) suggest that attitudes in face of change mediate the relationships between the attributes of context and well--being. This way, is evidenced that context of change (VI) is a predictor of well-being (VD) with data presented in Figure 2 and Table 2. Attitudes in face of changes (VMe) are predictors of well-being (VD) and mediate the relationship between planning and preparation and well-being of workers in the process of change. The indirect effects of attitudes of fear, skepticism and acceptance were not corroborated in the use of bootstrapping procedures to test the relationship of mediation of attitudes I the relation between degree of risk and well-being of workers in the organizational change.

Despite these results, it is worth emphasizing that the variable of acceptance was not present as a mediator to the relation between degree of risk and well-being. This is evidence that the degree of risk of change has not significantly influenced the attitudes in face of change in the organizations surveyed. This result could be attributed to the characteristics of the public organizations approached herein, since in public organizations employees have a different perception of risk. That is so because the separation process, or the downsizing, passes by bureaucratic criteria with legal support that minimize the perceptions of degree of risk and uncertainty about the organizational change. This way, this survey should be replicated in private organizations to observe if this relationship persists in a context of more competitive market.

The mediation model in this study is considered complex, because it has more than two mediating variables (Preacher, Zyphur & Zhang, 2010). Here, mediation was verified using structural equations, observing the mag-

nitude and significance of the indirect effects through bootstrapping. The indirect effects are estimated based on a population sample, and are results of the estimates on regression coefficients. Significant indirect effects are a measure analogous to the use of other methods that suggest the significances of the regression interaction effects (Preacher & Selig, 2012). Several analyses with submodels were performed to investigate the sign, magnitude and significance of coefficients, as well as the mediation relationship (Preacher, Zyphur & Zhang, 2010; Preacher & Selig, 2012). The bootstrapping analysis corroborated these effect.

## **Theoretical and Practical Implications**

Considering the few studies in the literature approaching aspects of change that influence the individuals' attitudes and behaviors (Vakola, Tsaousis & Nikolaou, 2004; Rafferty & Griffin, 2006; Oreg, Vakola & Armenakis, 2011), and that attributes of the context of change are neglected in many studies, the theoretical contribution of this study is that it subsidizes research that study the variable of organizational context and it influences on the individuals' responses to the change.

The large-scale organizational changes can only succeed based on the change of behaviors of the organization members (Santos, Neiva & Andrade-Melo, 2013). Therefore, understanding how attitudes influence the supportive behavior to change is a differential of success. Finally, this study can provide subsidies to the personnel management area to think on elaborated actions, mainly strategic planning action oriented to organizational change, internal events to disseminate the stages of the process of changes, and improve communication and transparency of the processes of change, fostering positive attitudes and promoting engagement to the proposed process of change.

The negative attitudes, in turn, could be minimized with programs on quality of life and well-being during the implementation of changes, to reduce the negative impacts on the employees' well-being. According to literature, when resistance is well management, it tends to facilitate the process of change. Otherwise it could lead to unbearable anguish and discomfort (Bortolotti, Souza Junior & Andrade, 2009).

Another important contribution refers to the mediating nature of the variable of attitude in face of changes regarding the context and well-being at the workplace. The mediating role partially confirmed here is relevant to studies in the field of organizational change, considering that this is a complex and multifaceted phenomenon. Moreover, it reinforces the influence of individuals' attitudes as facilitators to the success of organizational change processes (Neiva & Paz, 2012).

The existence of the mediating effect, even if partial in attitudes in face of organization changes in the relationship between attributes (planning and preparation, and degree of risk of change) and the employee well-being point out consistency of the proposed predictive model. It also reinforces that idea that, in face of an organizational change,

the attitude of acceptance positively mediates the relation between planning and well-being, while the attitudes of fear and opposition mediate the relation between risk and well-being. Therefore, we can conclude that change planning and preparation increase the likelihood of positive attitudes towards the organizational change process, while the perception of risk and uncertainties bring about attitudes of fear and opposition to the process, thus hindering its implementation.

# Limitations and Future agenda

The research was limited to a cross-sectional study; however, studies on organizational changes are typically performed when the process is underway. Despite this methodological difficulty, longitudinal surveys in the initial phase of change are needed, because these could enable the analysis of the whole process of organizational change, as well as its consequences. Results allow the comparison of the process and better estimate impacts of change on employees.

The sample of this survey can also be considering as a limiting factor. Considering that organizations belong to the public sector, the internal context of changes may have different characteristics on other sectors, where the market pressure is more constant and boosts changes in a different way. Further studies should try to expand results to other sectors to find conclusions that allow for generalization.

This survey analyzed only two variables of the context of organizational change. Therefore, other variables could interfere on the employees' attitudes towards the organizational change We suggest carrying out studies to evaluate other variables of the context, such as employees' engagement, influence of the leadership on the process of change; restructuring and change through legal order, which could affect attitudes towards organizational change, to show paths to new surveys.

## Final Remarks

This document is an invitation to organizations to rethink the approach of their interventions, considering planning in the processes of change as a way to achieve success in their initiatives, without neglecting the employees' well-being. Therefore, this study reinforces that change agents should be more focused on understanding the role played by the attributes of the context on attitudes in face of organizational changes, as well as on the employees' perception about the well-being. Moreover, despite the unavoidable reactions and behaviors inherent to the organizational change processes, the organizations should plan it in an effective way, minimizing the degree of uncertainty and risks arising out of these changes, reducing negative attitudes and maximizing positive attitudes.

#### **Conflict of interests**

The authors hereby state to have no conflict of interest.

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