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RELATIONSHIPS AMONG LEADERSHIP, ORGANIZATIONAL COMMITMENT AND OCB IN URUGUAYAN HEALTH INSTITUTIONS

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Abstract

We develop and test a model that relates leadership behaviors, organizational commitment, and organizational citizenship behaviors (OCBs). We test the model using structural equations with a sample of 116 doctors from Uruguay. Consistent with expectations, our results show that transactional leadership behaviors increase followers' continuance commitment and decrease their growth commitment, whereas transformational leadership behaviors increase followers' growth commitment and also their normative commitment. Besides, organizational commitment mediates in the relationship between leadership and OCB. The turbulent socio-economic context of hospitals in Uruguay makes this sample of special interest, since almost all the research published in the field to date has been conducted in developed economies, and during times of macroeconomic prosperity or stability.

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Leadership, organizational commitment and organizational citizenship behavior have been among the most intensely researched topics in the field of organizational behavior in the last ten years. However, there are not many studies that link the three variables into a common theoretical model. In this paper we attempt to develop a theoretical framework that relates leadership, organizational commitment and OCB.

In the leadership field, Bass' (1985) and Burns' (1978) theories of transactional and transformational leadership are the ones that have received most attention, delivering solid results and useful managerial implications. According to Bass (1985), transactional leaders focus on clarifying the tasks to be accomplished, the expectations they have, the responsibilities of followers, and the benefit for the self-interest of the followers that will be provided if the task is accomplished. Transformational leaders, on the other hand, motivate followers to perform beyond expectations by fostering a climate of trust, activating followers' higher-order needs and inducing them to transcend their self-interest for the sake of the organization.

Mowday, Porter and Steers (1979) defined organizational commitment as "the relative strength of an individual's identification with and involvement in a particular organization". In the last few years, three-dimensional conceptualizations of commitment (Meyer and Allen, 1991) have gained acceptance, allowing for interesting propositions regarding the antecedents and consequences of each of the dimensions (Allen and Meyer, 1990).

Finally, in spite of its relative novelty, the study of OCB (Bateman and Organ, 1983) has increased substantially over the last few years. Podsakoff, MacKenzie, Paine and Bachrach (2000) report that while only 13 papers were written on the topic from 1983 to 1988, more than 122 papers relating to OCB appeared from 1988 to 1998. The relationships between OCB and leadership, on the one hand, and between OCB and organizational commitment, on the other, are well documented, but to the best of our knowledge, no model includes the three concepts simultaneously.

The purpose of this paper is to explore the relationships among transactional and transformational leadership, organizational commitment and OCB, in the context of health institutions in Uruguay.

The context in which the study was conducted is of great importance, among other reasons because the vast majority of the research published in reputed journals, which makes up the recognized body of knowledge on the different subjects, has been carried out in

relatively stable environments in industrialized economies. How and if the concepts and relationships that such studies deliver will survive during times of major economic turbulence (historically high unemployment rates, a financial system on the verge of bankruptcy and soaring union conflict) is a question that deserves attention.

We will begin the paper by introducing the three main concepts under study: Bass' (1985) and Burns' (1978) theories of transactional and transformational leadership; then Meyer and Allen's (1991) three-dimensional model of organizational commitment, introducing the variant proposed by Cardona, Lawrence and Bentler (in press); and finally, OCB (Bateman and Organ, 1983).

Next we will formulate some propositions about the relationship between transactional and transformational leadership, on the one hand, and each of the three components of this new model of commitment, on the other; and about the links between these three components and OCB. We will test our propositions, together with alternative theoretical models, using structural equations modeling. We will conclude by presenting some of the implications of this work for theory development, research and managerial practice.

Theory

Transactional and transformational leadership

James MacGregor Burns (1978) introduced the concepts of transactional and transformational leadership more than 20 years ago, originating one of the most prolific streams of research in the OB field.

In transactional leadership, leader and followers act as bargaining agents in an exchange process by which rewards and punishments are administered (Deluga, 1990). The main idea behind transactional leaders' approach to their followers is one of exchange (Burns, 1978). Leaders want something that followers have, and in exchange for it they will give their followers something that they want. Both sides engage in a relationship of mutual dependency in which each receives something of value to satisfy its own self-interest. Contingent rewards and punishments are typical transactional leadership behaviors (Bryman, 1992).

While transactional leadership is based on rewards and compliance, transformational leadership is defined in terms of the effect the leader has upon followers: trust, admiration, loyalty, and respect (Yukl, 1998). The relationship is viewed as an intensely emotional one in which subordinates place a great deal of trust and confidence in their leader (Bass, 1987; Burns, 1978; Deluga, 1990). Transformational leaders influence their followers by broadening and elevating their goals, inspiring them with the confidence to perform beyond the expectations specified in the implicit or explicit exchange agreement (Dvir, Eden, Avolio and Shamir, 2002).

Transformational leadership is characterized by four types of behavior: charisma, intellectual stimulation, individualized consideration (Bass, 1985) and inspirational motivation (Bass, 1990). Charisma (or "idealized influence") is the type of behavior that causes strong emotions in followers and a feeling of identification with the leader. The leader is perceived as having "god-like" qualities that generate great referent power and influence.

Intellectual stimulation is behavior that makes followers view problems from a new perspective, increases their awareness of such problems and makes followers question their values and beliefs (Bass, 1987). Individualized consideration includes mentoring, support, encouragement and coaching of followers. "Inspirational motivation" refers to the ability to engage and emotionally communicate a future ideal state. It includes the use of symbols to focus follower effort, communicating an appealing vision and modeling appropriate behaviors for such vision.

Organizational commitment

Mowday et al. (1979) conceived organizational commitment as "the relative strength of an individual's identification with and involvement in a particular organization" (p. 226). The works of Allen and Meyer (1990) and Meyer and Allen (1991) opened a fruitful line of research with their conceptualization of commitment as a three-dimensional construct. From their perspective, commitment is the aggregate result of three different but related components: continuance commitment, affective commitment and normative commitment, each of which has its own antecedents and consequences (Allen and Meyer, 1990).

Continuance commitment traces back to Becker's (1960) concept of side bets, which refers to the recognition of the costs associated with discontinuing a given activity, in this case, participation in the organization. Similarly, Etzioni (1975) uses the term "calculative" to refer to this type of commitment based on a consideration of the costs and benefits associated with organizational membership that is unrelated to affect (Meyer and Allen, 1991). Continuance commitment develops on the basis of two factors: the magnitude of the investments (side-bets) individuals make, and the perceived lack of alternatives (Allen and Meyer, 1990). Transferability of organization-based skills and formal education, tenure within the organization, age and perceived extrinsic rewards have been proposed as antecedents of this type of commitment.

Affective commitment is defined as an "affective or emotional attachment to the organization such that the strongly committed individual identifies with, is involved in and enjoys membership in the organization" (Allen and Meyer, 1990, p.2). Buchanan (1974) referred to this type of commitment as a "partisan, affective attachment to the goals and values of the organization, to one's role in it, to its goals and values, and to the organization for its own sake, apart from its purely instrumental worth" (p.533).

Normative commitment refers to the employee's feelings of obligation to remain within the organization (Meyer and Allen, 1991). Based on this commitment, individuals exhibit certain behaviors because they consider it the right and moral thing to do (Wiener, 1982). Workers with a strong normative commitment feel that they ought to stay within the organization (Meyer and Allen, 1991)

In a review of the research conducted to appraise their model, Allen and Meyer (1996) concluded that although evidence generally supports their hypotheses concerning the three-dimensionality of commitment, there remains some disagreement about whether affective and normative commitment are truly distinguishable forms of commitment. Confirmatory factor analyses consistently demonstrate better fit when affective and normative commitment are considered as separate factors, but correlations among them are generally quite high (Allen and Meyer, 1996).

Recently, Cardona et al. (in press) proposed an alternative model of organizational commitment that could help overcome the limitations of previous models, especially with

respect to the overlapping of the normative and affective components. Based on social exchange theory (Blau, 1964; Homans, 1974), Cardona et al. proposed a three-dimensional framework composed of a continuance component and a normative component similar to those of Meyer and Allen (1991), but with the addition of a growth commitment component, instead of the affective commitment component. Growth commitment is defined as "an individual's attachment to the organization that results from his or her perceived opportunities of satisfying personal and professional growth needs" (Cardona et al., in press).

Research on employee involvement shows that positive perceptions of job characteristics increase people's sense of responsibility and strengthen their bonds with the organization (Lawler III, 1992, Van Dyne, Graham and Dienesch, 1994). Individuals experience their jobs as professionally rewarding when they perceive them as a source of learning, satisfaction of curiosity, and intellectual stimulation. These experiences increase their growth commitment towards the organization.

Organizational citizenship behavior

The third element in our study, OCB, was introduced by Bateman and Organ (1983) and represents the type of "individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization" (Organ, 1988, p.4)

Researchers are far from reaching consensus with respect to the different types of behaviors that compose OCB. However, as Podsakoff et al. (2000) report, seven themes are common among them: helping behavior, sportsmanship, organizational loyalty, organizational compliance, individual initiative, civic virtue and self-development.

Academic interest in extra-role behaviors, and particularly OCB, has grown dramatically over the past few years. Such interest is well justified, since OCB has also been related to a great number of beneficial group and organizational outcomes. Among the reasons why OCB may contribute to organizational success are: enhanced coworker and managerial productivity, freeing up resources that can be used for more productive purposes, helping to coordinate activities within and across groups, strengthening the organization's ability to attract and retain the best employees, increasing the stability of the organization's performance, and allowing the organization to adapt more effectively to organizational changes (Podsakoff et al., 2000). Furthermore, Podsakoff and MacKenzie (1994) and Podsakoff, Ahearne and MacKenzie (1997) found a positive relationship between different types of citizenship behaviors and objective measures of organizational effectiveness, such as index of sales performance, quantity and quality of production, and percentage of sales quota. Walz and Niehoff (1996) also found a positive relationship between citizenship behaviors and several measures of effectiveness in limited menu restaurants.

Interest in OCB has spilled over from organizational behavior to a variety of domains, including human resource management (Borman and Motowidlo, 1993; Podsakoff, MacKenzie and Hui, 1993), marketing (MacKenzie, Podsakoff and Fetter, 1993, 1998; Podsakoff and MacKenzie, 1994), hospital and health administration (Bolon, 1997; Organ, 1990), strategic management (Kim and Mauborgne, 1993, 1998), international management (Farh, Podsakoff and Organ, 1990; Hui, Law and Chen, 1999) and leadership (Podsakoff and MacKenzie, 1995; Podsakoff, MacKenzie and Bommer, 1996a, 1996b; Podsakoff, MacKenzie, Moorman and Fetter, 1990), among others.

Model and hypotheses

The conceptual model to be tested in this research is portrayed in Figure 1. Leader behaviors are hypothesized to affect OCB differently and indirectly, through the mediation of organizational commitment.

The first part of our theoretical model deals with the relationship between transactional and transformational leadership behaviors and organizational commitment. The second part deals with the relationship between the different components of organizational commitment and OCB.

Figure 1. Theoretical Model
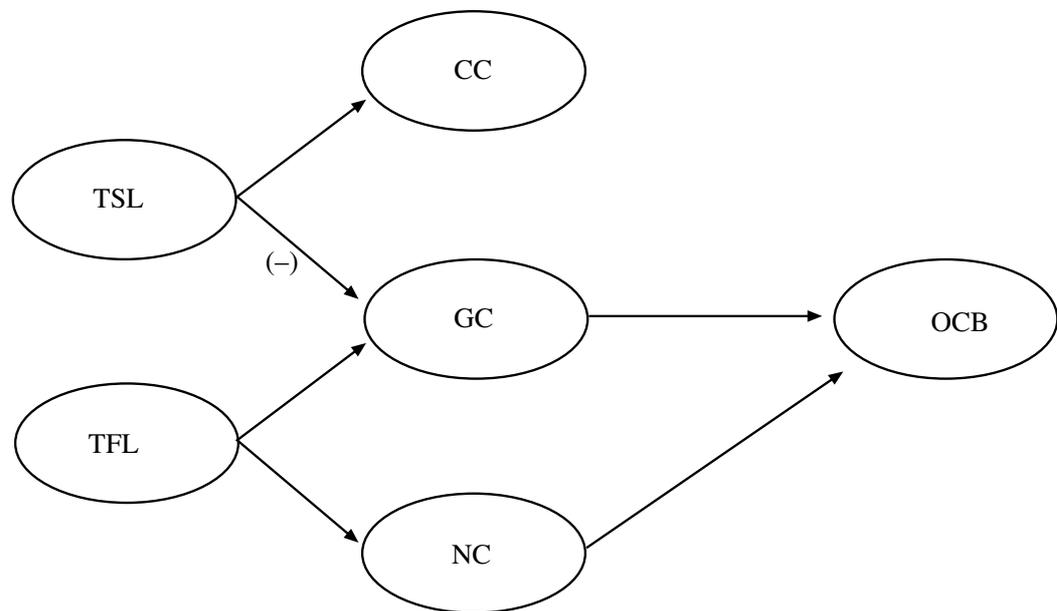
Key:
TFL: Transformational Leadership Behaviors
TSL: Transactional Leadership Behaviors
CC: Continuance Organizational Commitment
GC: Growth Organizational Commitment
NC: Normative Organizational Commitment
OCB: Organizational Citizenship Behaviors
Note: All relationships deemed to be positive except where otherwise indicated.

Leadership and commitment. Transactional and transformational leadership have been linked to several outcomes, but the link is particularly strong in the case of organizational commitment (Bycio, Hackett and Allen, 1995; Duchon, Green and Taber, 1986; Koh, Steers and Terborg., 1995; Mathieu and Zajac, 1990; Niehoff, Enz and Grover, 1990; Nystrom, 1990).

Leaders that exhibit transactional behaviors base their influence on the administration of rewards and punishments contingent on followers' performance (Bass, 1985), acting as bargaining agents and extensively using elements of extrinsic motivation. When stressing the economic rewards associated with staying in the organization and performing as required, the leader makes followers more aware of the costs of leaving the organization. The leader is thus putting the emphasis on the "calculative" (Etzioni, 1975) side of the relationship with the organization, which defines continuance commitment (Allen and Meyer, 1990).

Leaders that exhibit transactional behaviors will normally be concerned with designing a reward system that is attractive for followers. Positive perceptions of the economic reward system have been related to continuance commitment (Cardona et al., in press). Transformational leadership, on the other hand, is based on trust, admiration, and loyalty (Yukl, 1998), which are unrelated to either the side-bets followers make or their perception of viable alternatives.

Therefore, we propose that:

H1: Transactional leader behaviors will strengthen followers' continuance commitment.

The growth commitment component suggested by Cardona et al. (in press) is typical of individuals who consider their jobs professionally rewarding and feel that their work is appreciated by the organization, helps them learn, satisfies their curiosity or develops them intellectually and emotionally. All these elements have been related to intrinsic motivation (Deci and Ryan, 1985). Therefore, although research on the growth commitment component is in the very early stages, we expect intrinsic motivation to be a large component of this type of commitment.

Abundant research shows that the use of extrinsic incentives increases the extrinsic motivation of workers at the expense of their intrinsic motivation (Deci, Connell and Ryan, 1989; Deckop, 1995; Kreps, 1997; Frey, 1997; Kunda and Schwartz, 1983; Ryan, Mims and Koestner, 1983). Since transactional leader behaviors include making extensive use of extrinsic incentives, we expect these behaviors to have a negative effect upon followers' intrinsic motivation that will undermine their growth commitment.

In contrast, the intellectual stimulation and inspirational motivation typical of transformational leadership (Bass, 1985; Bass and Avolio, 1990) are directed to make followers more aware of the importance of their work for the organization, and to make it more intellectually rewarding. Furthermore, research has linked transformational leadership behaviors (enhancing the self-perceived competence of followers) to measures of subordinate task enjoyment and task interest (Harackiewicz and Larson, 1986). This should improve the perceived job characteristics of followers and so increase growth organizational commitment.

Therefore we propose that:

H2a: Transactional leader behaviors will decrease followers' growth commitment.
H2b: Transformational leader behaviors will increase followers' growth commitment.

Normative commitment has been related to concepts such as family/cultural socialization or organizational socialization (Allen and Meyer, 1990), interiorization of normative pressures to remain within the organization (Wiener, 1982), or when the organization incurs significant costs to provide employment (Meyer and Allen, 1991).

By making followers transcend their self-interest on behalf of the organization (Yukl, 1998), transformational leaders make followers aware that they have to perform at optimum levels not only for the extrinsic rewards and the intrinsic job satisfaction (MacKenzie, Podsakoff and Rich, 2001), but also because they identify with the organization (Bryman, 1992). Moreover, Mathieu and Zajac (1990) noted that "transformational leaders hold a sense of moral obligation towards the organization as an end value, which is in turn adopted by subordinates" (p. 477). Such sense of moral obligation towards the organization is a crucial element of normative commitment.

On the other hand, the quid-pro-quo relationship typical of transactional leadership falls quite far from the concepts of interiorization of norms or investing heavily in employees in such a way as to create an imbalance in the employee-organization relationship that causes employees to feel obligated to reciprocate by committing themselves to the organization (Meyer and Allen, 1991; Scholl, 1981). Furthermore, in an experimental setting, Kunda and Schwartz (1983) found that the agent's sense of moral obligation was undermined by the provision of economic rewards.

Therefore we propose that:

H3: Transformational leader behaviors will increase followers' normative commitment.

Organizational commitment and OCB. Research has documented extensively the relationships between organizational commitment and OCB (Organ and Ryan, 1995; Shore and Wayne, 1993; Williams and Anderson, 1991).

OCBs are discretionary, not explicitly recognized by the reward system (Organ, 1988), and therefore should not be related to a type of commitment based on a calculative assessment of the benefits of belonging to the organization. Consistent with this, Meyer, Allen et al. (1993) found no relationship between continuance commitment and OCB. Shore and Wayne (1993) found a negative relationship between continuance commitment and OCB, concluding that "employees who feel bound to their organization because of an accumulation of side-bets are less likely to engage in extra-role behaviors that support organizational goals" (p.779).

Therefore, we propose that:

H4: The strength of employees' economic attachments to the organization will not increase their propensity to engage in OCB.

When Cardona et al. (in press) suggested the growth commitment component, they proposed that since it resulted from positive perceptions of job characteristics, these perceptions should generate OCBs. Their results confirmed this hypothesis, in accordance with those of Van Dyne et al. (1994).

We also suggest that work attachments, such as an increased sense of responsibility, that stem from transformational leader behaviors are likely to increase a person's propensity to engage in OCB.

Therefore, we propose that:

H5: The stronger the individuals' growth commitment, the greater their propensity to engage in OCB.

Normative organizational commitment is defined as an individual's attachment to an organization that results from a personal sense of duty and obligation towards an organization (Allen and Meyer, 1990). It seems logical to think that individuals who feel morally obligated towards the organization will be the ones who are most likely to engage in extra-role activities that are beneficial for the organization. Consistent with this idea, Cardona et al. (in press) found a positive relationship between normative commitment and OCB.

Therefore, we propose that:

H6: The stronger the individuals' normative commitment, the greater their propensity to engage in OCB.

Methods

Sample

Measures of transactional and transformational leadership, organizational commitment and OCB were collected from questionnaire responses by doctors working in Uruguayan hospitals. Numbered questionnaires were sent in the last week of June 2002 to a database of 766 doctors working at 253 institutions and holding leadership positions within their organizations. We chose to work with doctors in leadership positions because of the large number of separate jobs that doctors tend to have in the Uruguayan health system. We feared that the variables under study would behave substantially differently in individuals who work in several organizations at the same time. Although doctors in leadership positions may also work in more than one hospital, the average number of jobs they hold is substantially lower than among doctors as a whole. For the purposes of this study, doctors in leadership positions are those who supervise other doctors, such as department heads.

The database for the mailing was prepared in collaboration with the Biomedical Sciences Institute of the University of Montevideo. A cover letter was sent with each questionnaire explaining the purpose of the study, assuring confidentiality and urging the doctors to participate in the study.

Completed questionnaires were received from 139 doctors working in 72 institutions. Missing data further reduced the number of usable responses to a total of 116, a usable response rate of 15 percent. A comparison of respondents and nonrespondents on variables that were observable from the database (gender, location, medical specialty, public or private sector employer) did not reveal any significant difference between the two groups.

Measures

The questionnaire was written in English and then translated into Spanish using a back-translation method (Brislin, 1986). During the translation process, the wording of some items was slightly modified to achieve a meaning in Spanish that is closer to the original meaning in English. Participants responded to questions using a five-point Likert scale ranging from absolutely disagree to absolutely agree. High scores reflect a high level on the corresponding variable except for a few items that are reverse-scored in order to reduce systematic error in the responses.

As this study was only one section of the questionnaire distributed to physicians, there was a limit to the number of questions we could ask. We therefore chose, among the items currently used, only a few for each scale. This seemed an acceptable tradeoff for the opportunity to investigate the variables of our study in such an interesting context.

Transformational leadership. Four items from a slightly modified version of the Multifactor Leadership Questionnaire-MLQ (Bass and Avolio, 1989) were used to assess

transformation leadership behaviors. The MLQ is the most widely used measure of both transformational and transactional leadership behaviors (Pillai, Schriesheim et al., 1999). Although the factor structure of the MLQ has been problematic in the past (Bycio et al. 1995; Tepper and Percy, 1994), our focus was on the consequences of "overall" transformational leadership, so we treated all the items as one factor.

Transactional leadership. Transactional leadership was measured by three items, also from the MLQ. Following Podsakoff et al. (1990) and Pillai, Schriesheim and Williams (1999), we conceptualized transactional leadership as contingent reward behavior.

Organizational commitment. To measure continuance organizational commitment, we used three items adapted from Meyer, Allen et al. (1993). Growth organizational commitment was measured with three items from the scale developed by Cardona et al. (in press). Normative organizational commitment was measured with three items adapted from the normative organizational commitment scale of Meyer, Allen and Smith (1993). The items that we used for the three dimensions of organizational commitment have the advantage that they have been validated in a Spanish-speaking country, and also within the context of health institutions (Cardona et al., in press).

Organizational citizenship behavior. OCB was measured with four self-report items adapted from Smith, Organ and Near (1983). Van Dyne and Lepine (1998) suggest that self-reports are appropriate for studies involving self-conceptualization, while observer reports are suitable when studying behavior in organizational settings, where perceptions of others are critical determinants of feedback, promotions and merit increases.

In this particular study we are concerned with the individual subjective development of OCB from the perception of transactional or transformational leader behaviors and organizational commitment; therefore, a subjective report of OCB seems appropriate. We tried to reduce social desirability bias by editing the items so that it was more difficult to agree with each of them (Sheatsley, 1983).

Even though this scale contains items from both altruism and compliance factors of OCB (Smith et al., 1983), exploratory factor analyses found only one factor when these items were analyzed together with the rest of the items. Since our focus is on antecedents of OCB and the relationships among them rather than subscales of OCB, we treat all these items as one factor.

Results

Construct validity

Exploratory factor analyses. Even though the scales of our study had already been validated by Cardona et al. (in press) in Spanish and in the context of health organizations, we conducted a series of principal component analyses prior to testing the hypothesized model. Table 1 shows the results of the exploratory factor analyses. All the items loaded above 0.4 on the expected factors, and cross-loadings were below 0.3. Moreover, Table 2 reports means, standard deviations, Cronbach's alpha, and correlations among the variables.

Table 1. Standardized Factor Loadings of Exploratory Factor Analyses
(Varimax Rotation)

Item	Standardized Loading
Transformational Leadership Behavior	
X_1	0.894
X_2	0.886
X_3	0.898
X_4	0.896
Transactional Leadership Behavior	
X_5	0.869
X_6	0.869
X_7	0.721
Continuance Organizational Commitment	
X_8	0.803
X_9	0.783
X_{10}	0.702
Growth Organizational Commitment	
X_{11}	0.726
X_{12}	0.665
X_{13}	0.890
Normative Organizational Commitment	
X_{14}	0.823
X_{15}	0.577
X_{16}	0.896
Organizational Citizenship Behavior	
X_{17}	0.568
X_{18}	0.711
X_{19}	0.817
X_{20}	0.806

Table 2. Descriptive Statistics

Variables' Means, Standard Deviations, Cronbach's Alpha and Inter-Correlations

Measure	Mean	SD	α	1	2	3	4	5	6
Leadership Behavior									
1 Transformational Leadership	3,25	1,15	0,92	–	0.232*	0.046	0.430**	0.400**	0.134
2 Transactional Leadership	2,68	0,97	0,76		–	0.140	–0.021	0.097	-0.007
Organizational Commitment									
3 Continuance Commitment	3,80	0,88	0,64			–	0.194*	0.178	0.245**
4 Growth Commitment	4,07	0,95	0,81				–	0.0619**	0.345**
5 Normative Commitment	3,70	1,02	0,73					–	0.426**
6 Organizational Citizenship Behavior	4,12	0,47	0,72						–

*Correlation is significant at the 0.05 level (two-tailed).
**Correlation is significant at the 0.01 level (two-tailed).

EQS version 5.7b with maximum likelihood estimation was used for the structural equation analyses. The Comparative Fit Index (CFI) and the Root Mean Square Error of Approximation (RMSEA) were used to assess the goodness of fit of our model, and the alternatives we tested. Values of CFI range from 0 to 1.00 and a value greater than 0.90 indicates an acceptable fit to the data (Bentler, 1990). Also, values of RMSEA below 0.08 are deemed acceptable (Browne & Cudeck, 1993). It must be noted that no extraneous or "garbage" parameters such as correlated errors (MacCallum, 1986) were included in the model in order to inflate model fit.

Structural Equation Model

Figure 2 shows the results of the structural model for our study. Lagrange Multiplier and Wald Tests were used to evaluate the paths representing the hypotheses, and all other possible cross-paths between factors. The chi-squares for the hypothesized model are 215, with 164 degrees of freedom, producing probability values lower than 0.005. The model converged in 11 iterations, has a CFI of 0.94 and a RMSEA of 0.054. Given the restrictions imposed on the model and the reduced amount of usable responses, the fits are very good.

Test of the hypotheses

Results of the structural model support the majority of the hypothesized relationships.

Figure 2: Standardized Estimates for the Hypothesized relationships
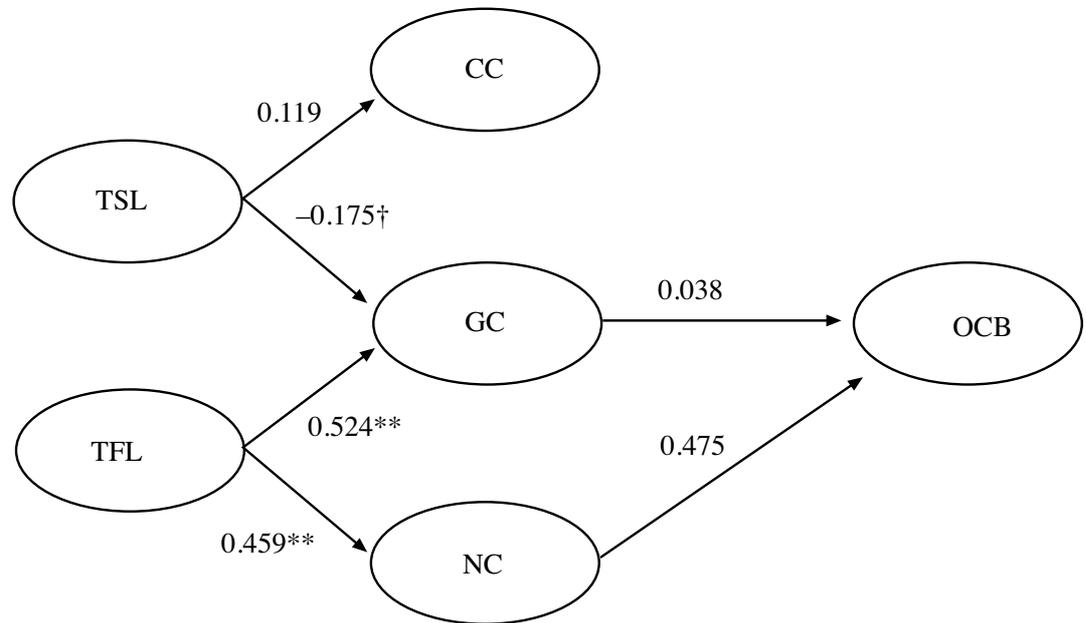
† = p<0.1
** = p<0.01

Leadership and organizational commitment. The relationship between transactional leader behaviors and continuance organizational commitment was not significant, thus Hypothesis 1 was not supported.

We found only weak support (p<0.10) for Hypothesis 2a, that transactional leader behaviors will decrease followers' growth organizational commitment. Hypothesis 2b, that transformational leader behaviors will increase followers' growth commitment, was supported (p<0.01).

We also found support (p<0.01) for Hypothesis 3, that transformational leader behaviors will increase follower's normative commitment.

Organizational commitment and OCB. Hypothesis 4 predicted that the strength of followers' continuance commitment to the organization will not increase their propensity to engage in OCB. This hypothesis was supported. Hypothesis 5, that the stronger the individuals' growth commitment, the higher their propensity to engage in OCB, was not supported. Finally, Hypothesis 6, that the stronger the individuals' normative commitment, the higher their propensity to engage in OCB, was supported (p<0.01).

Test of alternative explanations

Several alternative theoretical models were tested using the data. Testing alternative models is considered the best way to subject a structural model to rigorous theory testing (Blalock, 1964; Heise, 1969; Jermier and Schriesheim, 1978; Pillai et al., 2000). The fit indices from the analysis of the alternative models are shown in Table 3.

Table 3. Goodness of fit indicators for alternative models

Model	Chi-2	DF	CFI	RMSEA
Theoretical Model	215	164	0.94	0.054
Alt-1	212	162	0.94	0.053
Alt-2	259	165	0.89	0.071
Alt-3	215	163	0.94	0.054

Model *Alt-1*: Podsakoff and MacKenzie (1995) and Podsakoff et al. (1990, 1996a, 1996b, 2000) report a significant and consistent relationship between transformational leadership behaviors and measures of OCB. Thus, we included in the original model direct paths between both leadership behaviors and OCB, to test the possibility that leadership behaviors are directly related to OCB. None of the relationships between leadership behaviors and OCB are significant when organizational commitment is included in the model. The CFI of the model remains the same as in the theoretical model, and only a very slight improvement is shown on the RMSEA.

Model *Alt-2*: In our original theoretical model, the relationship among leadership, organizational commitment and OCB is a sequential one, in which leadership influences commitment and this in turn affects OCB. It may be the case, however, that both leadership and organizational commitment are direct antecedents of OCB. Thus, we eliminated the links between leadership behaviors and organizational commitment, and linked both leadership behaviors directly to OCB. The relationships between leadership behaviors and OCB were non-significant. Moreover, measures of the fit of the model were worse for this alternative (CFI = 0.89).

Model *Alt-3*: Our original model did not include a direct relationship between transformational leadership and continuance commitment. However, transformational leader behaviors affect the perceptions, emotional state and aspirations of followers (Burns, 1978; Bass and Avolio, 1990). This change may significantly affect their self-perception and self-confidence in such a way that they feel more confident with regard to the available alternatives, and therefore reduce their continuance commitment. Thus, in this model we included a direct relationship between transformational leadership and continuance commitment. Results of the analysis show that the relationship between transformational leadership and continuance commitment is not significant and the fit measures do not improve the ones in the original model.

Discussion

The primary aim of this study was to develop and empirically test a model linking transactional and transformational leadership, organizational commitment, and OCBs, in a context of socioeconomic turbulence, such as that of Uruguay in June 2000.

With respect to transactional and transformational leadership, the results validate the notion that transformational leader behaviors influence followers to make extraordinary efforts, performing above and beyond the call of duty, in this case by strengthening followers' normative commitment.

In the case of transactional leadership, it was surprising to find a non-significant relationship with continuance commitment. We think this is so because the economic conditions in the country, and especially within the health sector (unemployment soaring, health institutions having to close due to bankruptcy), are so powerful that they overrun the effect of leadership behaviors.

Transactional and transformational leadership behaviors affected growth commitment in opposite directions, as expected. This finding is of particular importance, both for theory and for practice. On theoretical grounds, because it questions the hypothesis that transformational leadership behaviors "augment" the effect of transactional leadership behaviors (MacKenzie et al., 2001; Waldman, Bass and Yammarino, 1990), suggesting instead that they in fact have opposite effects. On practical grounds, at least, this suggests that leaders in health institutions should be careful when employing contingent rewards with their employees, since this may undermine an important component of organizational commitment that has been related to OCB (Cardona et al., in press).

Our results also support the mediating role of organizational commitment in explaining OCB (Cardona et al., in press; Shore and Wayne, 1993). As predicted, economic-type attachments such as continuance commitment do not increase the propensity to engage in OCB, while social-type attachments such as normative commitment do. Unlike Cardona et al. (in press), we did not find a significant effect of growth commitment on OCB. Since the Cardona, Lawrence and Bentler (in press) study was also performed among physicians, this opens a interesting line of questions regarding the contextual factors that may affect the foci (Becker, Billings Eveleth and Gilbert, 1996) of growth commitment, particularly variables such as job challenge, role clarity, feedback and goal clarity (Allen and Meyer, 1990), which are related to perceptions of job characteristics and so may influence growth organizational commitment.

Finally, since all the items of the questionnaire loaded on the predicted factors, and these, in turn, behave as expected in almost all the cases, we have grounds to say that, at least in the tested situation, the environmental situation of acute economic crisis did not affect the validity of the general theory of the constructs under study. Managers should bear this in mind, because it is another piece of evidence that in tough times "soft" issues such as leadership and organizational commitment are still effective, at least with regard to a particularly critical variable such as OCB.

This study has several limitations. First, the reliability of our measure of continuance organizational commitment is somewhat lower than desirable (a=0.64), thus attenuating the effect it may have on other variables. Since we used an adaptation of a well recognized scale (Meyer et al., 1993), which has also been validated in a Spanish-speaking country, we are confident that they do actually reflect the theoretical domain for this concept. While the results are significant and in the predicted direction, a higher reliability measure might increase their strength.

Furthermore, space limitations made it impossible to include all the original continuance commitment items from the scale.

Common method variance might be another source of concern, since all the variables have been taken from self-reports (James, Demaree and Wolf, 1984). However, since both exploratory and confirmatory factor analyses identify the factors as distinct constructs, and correlations among them are insufficiently large, we are confident enough to discard common method variance as a serious problem. Social desirability might be another source of concern, in spite of our efforts to avoid it by editing the items of the questionnaire.

Further developments of this study might focus on whether other components of the constructs of the model exhibit the same behavior as those investigated here. For example, whether different types of citizenship behaviors have unique antecedents, or whether all the components of transformational or transactional leadership have the same consequences. The impact that organizational variables, such as organizational culture or key human resource practices, may have upon the model presented here is another area that deserves additional attention.

Another area for theoretical development is the relative effect that dispositional antecedents, such as education or family socialization, may have upon the propensity to engage in OCB, relative to situational antecedents such as the ones studied here.

This study suggest that OCBs are, at least partially, a result of organizational experiences, but Smith et al. (1983) suggest that OCBs are also a consequence of particular personalities. A better understanding of the effect of both situational and dispositional antecedents should have a great impact on areas such as job design and employee selection.

The interaction of the dimensions of organizational commitment studied here, and other mediators in the leadership-OCB relationship such as fairness perceptions and trust in the supervisor (Pillai et al., 1999), should also be a priority in the future development of this model.

To conclude, research should also focus on the consequences of OCB, in addition to the antecedents studied here. The impact of OCB on absenteeism, turnover and other objective indicators of performance deserves attention.

References

Allen, N. J. and J. P. Meyer (1990), "The measurement and antecedents of affective, continuance and normative commitment to the organization", *Journal of Occupational Psychology*, 63: 1-18.

Allen, N. J. and J. P. Meyer (1996), "Affective, continuance and normative commitment to the organization: An examination of construct validity", *Journal of Vocational Behavior*, 49: 252-276.

Bass, B. M. (1985), "Leadership and performance beyond expectations", New York, NY: The Free Press.

Bass, B. M., B. J. Avolio and L. Goodheim (1987), "Biography and the assessment of transformational leadership at the world-class level", *Journal of Management*, 13: 7-19.

Bass, B. M., D. A. Waldman, B. J. Avolio and M. Bebb (1987), "Transformational leadership and the falling dominoes effect", *Group and Organization Studies*, 12: 73-87.

Bass, B. M. and B. J. Avolio (1989), "Manual for the Multifactor Leadership Questionnaire", Palo Alto, CA: Consulting Psychologists Press.

Bass, B. M. and B. J. Avolio (1990), "Developing transformational leadership: 1992 and beyond", *Journal of European Industrial Training*, 14: 21-27.

Bateman, T. S. and D. W. Organ (1983), "Job satisfaction and the good soldier: The relationship between affect and employee 'citizenship'", *Academy of Management Journal*, 26: 587-595.

Becker, T. E. (1960), "Notes on the concept of commitment", *American Journal of Sociology*, 66: 32-42.

Becker, T. E., R. S. Billings, D. M. Eveleth and N. L. Gilbert (1996), "Foci and bases of employee commitment: Implications for job performance", *Academy of Management Journal*, 39: 464-482.

Bentler, P. M. (1990), "Comparative fit indexes in structural models", *Psychological Bulletin*, 107: 238-246.

Blalock, H. M. (1964), "Causal inferences in nonexperimental research", Chapel Hill, NC: University of North Carolina Press.

Blau, P. M. (1964), "Exchange and power in social life", New York, NY: Wiley.

Bolon, D. S. (1997), "Organizational citizenship behaviors among hospital employees: A multi-dimensional analysis involving job satisfaction and organizational commitment", *Hospital and Health Services Administration*, 42: 221-241.

Borman, W. C. and S. J. Motowidlo (1993), "Expanding the criterion domain to include elements of contextual performance", in N. Schmitt & W. C. Borman & Associates (Eds.), *Personnel selection in organizations*, San Francisco, CA: Jossey-Bass.

Brislin, R. W. (1986), "The wording and translation of research instruments", in J. Lonner & J. W. Berry (Eds.), *Field methods in cross-cultural research*: 137-164. Beverly Hills, CA: Sage.

Bryman, A. (1992), *Charisma and leadership in organizations*, London: Sage.

Buchanan, B. (1974), "Building organizational commitment: The socialization of managers in work organizations", *Administrative Science Quarterly*, 19: 533-546.

Burns, J. M. (1978), *Leadership*, New York, NY: Harper & Row.

Bycio, P., R. D. Hackett and J. S. Allen (1995), "Further assessments of Bass' (1985) conceptualization of transactional and transformational leadership", *Journal of Applied Psychology*, 80: 468-478.

Cardona, P., B. Lawrence and P. M. Bentler, in press, "The influence of social and work exchanges on organizational citizenship behavior", *Group and Organization Management*.

Deci, E. L. and R. M. Ryan (1985), *Intrinsic motivation and self-determination in human behavior*, New York, NY: Plenum Press.

Deci, E. L., J. P. Connell and R. M. Ryan (1989), "Self-Determination in a work organization", *Journal of Applied Psychology*, 74(4): 580-590.

Deckop, J. R. (1995), "Pay system effects on altruism motivation", *Academy of Management Journal*, Best paper proceedings: 359-363.

Deluga, R. (1990), "The effects of transformational, transactional and laissez-faire leadership characteristics on subordinate influencing behavior", *Basic and Applied Social Psychology*, 11(2): 191-203.

Duchon, D., S. G. Green and T. D. Taber (1986), "Vertical dyad linkage, a longitudinal assessment of antecedents, measures and consequences", *Journal of Applied Psychology*, 71: 56-60.

Dvir, T., D. Eden, B. J. Avolio and B. Shamir (2002), "Impact of transformational leadership on follower development and performance: A field experiment", *Academy of Management Journal*, 45(4): 735-744.

Etzioni, A. (1975), *A comparative analysis of complex organizations*, New York, NY: Free Press.

Farh, J. L., P. M. Podsakoff and D. W. Organ (1990), "Accounting for organizational citizenship behavior: Leader fairness and task scope versus satisfaction", *Journal of Management*, 16: 705-721.

Frey, B. S. (1997), "On the relationship between intrinsic and extrinsic work motivation", *International Journal of Industrial Organization*, 15: 427-439.

Harackiewicz, J. M. and J. R. Larson (1986), "Managing motivation: The impact of supervisor feedback on subordinate task interest", *Journal of Personality and Social Psychology*, 51(3): 547-556.

Heise, D. R. (1969), "Problems in path analysis and causal inferences", in E. F. Borgatta and G. W. Bohrnstedt (Eds.), *Sociological Methodology 1969*, San Francisco, CA: Jossey-Bass.

Homans, G. C. (1974), *Social behavior: Its elementary forms*, New York: Harcourt.

Hui, C., K. S. Law and Z. X. Chen (1999), "A structural equation model of the effects of negative affectivity, leader-member exchange, and perceived job mobility on in-role and extra-role performance", *Organizational Behavior and Human Decision Processes*, 77: 3-21.

James, L. R., R. G. Demaree and G. Wolf (1984), "Estimating within-group interrater reliability with and without response bias", *Journal of Applied Psychology,* 69: 85-98.

Jermier, J. M. and C. A. Schriesheim (1978), "Causal analysis in the organizational sciences and alternative model specification and evaluation", *Academy of Management Review*, 3: 326-337.

Kim, W. C. and R. A. Mauborgne (1993), "Procedural justice, attitudes and subsidiary top management compliance with multinationals' corporate strategic decisions", *Academy of Management Journal*, 36: 502-526.

Kim, W. C. and R. A. Mauborgne (1998), "Procedural justice, strategic decision making and the knowledge economy", *Strategic Management Journal*, 19: 323-338.

Koh, W. L., R. M. Steers and J. R. Terborg (1995), "The effect of transformational leadership on teacher attitudes and student performance in Singapore", *Journal of Organizational Behavior*, 16: 319-333.

Kreps, D. M. (1997), "The interactions between norms and economic incentives: Intrinsic motivation and extrinsic incentives", *AEA Papers and Proceedings*, 87(2): 359-364.

Kunda, Z. and S. H. Schwartz (1983), "Undermining Intrinsic moral motivation: External reward and self-presentation" *Journal of Applied Psychology*, 45(4): 763-771.

Lawler III, E. E. (1992), *The ultimate advantage: Creating the high involvement organization*, San Francisco, CA: Jossey-Bass.

MacCallum (1986), "Specification searches in covariance structural modelling", *Psychological Bulletin*, 100: 107-120.

MacKenzie, S. B., P. M. Podsakoff and R. Fetter (1993), "The impact of organizational citizenship behavior on evaluations of sales performance", *Journal of the Academy of Marketing Science*, 27: 396-410.

MacKenzie, S. B., P. M. Podsakoff and J. B. Paine (1998), "Effects of organizational citizenship behaviors and evaluations of performance at different hierarchical levels in sales organizations", *Journal of the Academy of Marketing Science*, 27: 396-410.

MacKenzie, S. B., P. M. Podsakoff and G. A. Rich (2001), "Transformational and Transactional leadership and salesperson performance", *Journal of the Academy of Marketing Science*, 29(2): 115-134.

Mathieu, J. E. and D. Zajac (1990), "A review and meta-analysis of the antecedents, correlates and consequences of organizational commitment", *Psychological Bulletin*, 108: 23-39.

Meyer, A. D., N. J. Allen and C. A. Smith (1993), "Commitment to organizations and occupations: Extension and test of a three-component conceptualization", *Journal of Applied Psychology*, 78: 538-551.

Meyer, J. P. and N. J. Allen (1991), "A three-component conceptualization of organizational commitment", *Human Resource Management Review*, 1(1): 61-89.

Mowday, R. T., L. W. Porter and R. M. Steers (1979), "The measurement of organizational commitment", *Journal of Vocational Behavior*, 14: 224-247.

Niehoff, B. P., C. A. Enz and R. A. Grover (1990), "The impact of top-management actions on employee attitudes and perceptions", *Group and Organization Studies*, 15: 337-352.

Nystrom, P. C. (1990), "Vertical exchanges and organizational commitments of American business managers", *Group and Organization Studies*, 15: 296-312.

Organ, D. W. (1988), *Organizational Citizenship Behavior: The good soldier syndrome. Lexington*, MA: Lexington Books.

Organ, D. W. (1990), "The subtle significance of job satisfaction", *Clinical Laboratory Management Review*, 4: 94-48.

Organ, D. W. and R. M. Ryan (1995), "A meta-analytical review of attitudinal and dispositional predictors of organizational citizenship behaviors", *Personnel Psychology*, 48: 775-802.

Pillai, R., C. A. Schriesheim and E. S. Williams (1999), "Fairness perceptions and trust as mediators for transformational and transactional leadership", *Journal of Management*, 25(6): 897-933.

Podsakoff, P. M., S. B. MacKenzie, R. H. Moorman and R. Fetter (1990), "Transformational Leader behaviors and their effects on follower's trust in leader, satisfaction and organizational citizenship behaviors", *Leadership Quarterly*, 1: 107-142.

Podsakoff, P. M., S. B. MacKenzie and C. Hui (1993), "Organizational citizenship behaviors and managerial evaluations of employee performance: A review and suggestions for further research", in G. Ferris & K. Rowland (Eds.). Greenwich, CT: JAI Press.

Podsakoff, P. M. and S. B. MacKenzie (1994), "Organizational citizenship behaviors and sales unit effectiveness", *Journal of Marketing Research*, 3(1): 351-363.

Podsakoff, P. M., S., B. MacKenzie and W. H. Bommer (1996a), "A meta analysis of the relationships between Kerr and Jermier's substitutes for leadership and employee job attitudes, role perceptions and performance", *Journal of Applied Psychology*, 81: 380-399.

Podsakoff, P. M., S. B. MacKenzie and W. H. Bommer (1996b), "Transformational leader behaviors and substitutes for leadership as determinants of employee satisfaction, commitment, trust, and organizational citizenship behaviors", *Journal of Management,* 22: 259-298.

Podsakoff, P. M., M. Ahearne and S. B. MacKenzie (1997), "Organizational citizenship behavior and the quantity and quality of work group performance", *Journal of Applied Psychology*, 82: 262-270.

Podsakoff, P. M., S. B. MacKenzie, J. B. Paine and D. G. Bachrach (2000), "Organizational Citizenship Behaviors: A critical review of the theoretical and empirical literature and suggestions for further research", *Journal of Management*, 26(3): 513-563.

Ryan, R. M., V. Mims and R. Koestner (1983), "Relation of reward contingency and interpersonal context to intrinsic motivation: A review and test using cognitive evaluation theory", *Journal of Personality and Social Psychology*, 45: 736-750.

Scholl, R. W. (1981), "Differentiating commitment from expectancy as a motivating force", *Academy of Management Review*, 6: 589-599.

Sheatsley, P. B. (1983), "Questionnaire construction and item writing", in P. H. Rossi & J. D. Wright & A. B. Anderson (Eds.), *Handbook of survey research*, Boston, MA: Academic Press.

Shore, L. M. and S. J. Wayne (1993), "Commitment and employee behavior: Comparison of affective commitment and continuance commitment with perceived organizational support", *Journal of Applied Psychology*, 63: 653-663.

Smith, C. A., D. W. Organ and J. P. Near (1983), "Organizational citizenship behavior: Its nature and antecedents", *Journal of Applied Psychology*, 78: 774-780.

Van Dyne, L., J. W. Graham and R. M. Dienesch (1994), "Organizational citizenship behavior: Construct redefinition, measurement and validation", *Academy of Management Journal*, 37: 765-802.

Van Dyne, L. and J. A. Lepine (1998), "Helping and voice extra-role behaviors: Evidence of construct and predictive validity", *Academy of Management Journal*, 41: 108-119.

Waldman, D. A., B. M. Bass and F. J. Yammarino (1990), "Adding to contingent reward behavior: The augmenting effect of charismatic leadership", *Group and Organization Studies*, 15(381-394).

Walz, S. M. and B. P. Niehoff (1996), "Organizational citizenship behaviors and their effect on organizational effectiveness in limited-menu restaurants", *Academy of Management - Best papers proceedings*: 307-311.

Wiener, Y. (1982), "Commitment in organizations: A normative view", *Academy of Management Review*, 7(418-428).

Williams, L. J. and S. E. Anderson (1991), "Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors", *Journal of Management*, 17: 601-617.

Yukl, G. (1998), *Leadership in Organizations*, Upper Saddle River, NJ: Prentice-Hall Inc.