

Viewpoint Research

Examining the effective factors on mistrust towards organizational change and relationship of these factors with organizational health (personnel of Sina, Shariati, and Imam Khomeini hospital)

**Authors:**  
**Zahra Khademian Moghari**

**Institution:**  
MA of Public Management  
(Change Management),  
Payame Noor University,  
Tehran, Iran

**Corresponding author:**  
**Zahra Khademian Moghari**

**Abstract:**

One of the most important challenges of plans for organizational improvement and change is personnel' resistance toward applying changes because of mistrust to change. Therefore, organizations must identify factors stimulating mistrust to control and remove these factors. This survey was conducted in the personnel of Sina, Shariati, and Imam Khomeini hospitals with a sample of 260 people. The most important factors for mistrust stimulation of organizations have been identified based on theoretical studies and empirical evidence; these factors are organizational justice, cooperation in decision making, psychological contract violation, and negative personality. To collect data, six questionnaires were used. These questionnaires are organizational justice, cooperation in decision making, psychological contract violation, organizational health, mistrust to organizational change, and mistrust personality which consist of 69 questions. SPSS and structural equation modeling techniques were used to analyze data. The results showed that militant personality has the most effect on increasing organizational mistrust and reduce organizational mistrust. On the other hand the interactional justice has the most effect on reducing organizational mistrust and increasing administrative health.

**Keywords:**

Mistrust to organizational changes, Stimulators, Organizational health.

**Article Citation:**

**Zahra Khademian Moghari**

Examining the effective factors on mistrust towards organizational change and relationship of these factors with organizational health (personnel of Sina, Shariati, and Imam Khomeini hospital)

**Journal of Research in Biology (2018) 8(2): 2425-2434**

**Dates:**

**Received:** 10 Jan 2018    **Accepted:** 31 Jan 2018    **Published:** 26 Feb 2018

**Web Address:**  
[http://jresearchbiology.com/  
documents/RA0665.pdf](http://jresearchbiology.com/documents/RA0665.pdf)

**Journal of Research in Biology**  
An International  
Scientific Research Journal

This article is governed by the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which gives permission for unrestricted use, non-commercial, distribution and reproduction in all medium, provided the original work is properly cited.

2425-2434 | JRB | 2018 | Vol 8 | No 2

[www.jresearchbiology.com](http://www.jresearchbiology.com)

## INTRODUCTION

One of the most important issues in organizational behaviour management is the attitudes of personnel toward the administrative activities. Some organizations tend to hire those who have compatible, calm, peace maker and committed personality. These organizations also expected these persons to remain committed and support them if something happens in an organization. For example, when a plan changes or re-engineering processes takes place, it is expected that the personnel accept these changes willingly or at least do not throw a spanner in the works. Unfortunately all personnel will not commit to the organizational plans and activities because of some personal and organizational reasons. One of the views that can be proposed for explaining the reasons for resistance against the organizational changes is “mistrust”. The history of mistrust came back to cynicism in 4 the fourth century Before Christ (BC). According to the followers of this philosophical school, we cannot trust the honesty and purity of others. In the view of cynic the simple living and self-sufficiency are true real good and if human being seeks happiness and comfortable and move away from chastity, his prosperity will be in danger. In view of personality, the mistrust is a kind of stable attitude that has some characteristics such as sadness, hate, sense of helplessness, contempt, and distrust to others. But some scholars consider mistrust is due to the environment and condition. They say that it is controllable and changeable. In this view (Naus *et al.*, 2007) considered mistrust as an interaction to the incompatible organizational condition. In view of some scholars (Abraham, 2000) the mistrust is a defensive reaction. Thus, this will protect individuals against strong emotions and prepare them for the next unavoidable failures. If we see mistrust in any direction we will understand that the mistrust person takes one thing (organization, co-worker, manager, group, change plan, and etc.) into consideration and blurt mistrust

behavior toward that. Mistrust to change involves decreasing real belief to change leaders. It is a reaction to the background effort of change that their success is not known. Mistrust to organizational change is defined as mistrust view to the success of change attempts. Because it is assumed that the change authorities are less motivated and disqualified persons. Now we should see that what concepts the mistrust phenomena will have for the hospital. It seems that the first factor cause mistrust is lack of knowledge of individuals about the nature and goal of change plans. The second factor of mistrust toward the change plans is the perception of individuals about organizational justice. The third factor for stimulation of mistrust of personnel about organizational changes may be non-commitment of organization to its primary commitments from the beginning of employing which is called psychological contract violation. The fourth and last effective factor of mistrust of people toward organizational change plans is personality mistrust. Some researchers consider mistrust is caused by environmental condition, while other researchers consider it as an innate and stable state. In this view, some people are mistrust to the qualification and enthusiasms of others and do not trust in them. It seems that those who have the characteristics of personality mistrust are probably the first persons who resist against the proposed changes.

### **Approach of mistrust toward organization change and mistrust stimulations toward the organizational changes**

A new kind of mistrust that recently drew the attention of organizational researcher to itself is mistrust toward the organizational change. Mistrust to organizational change is a combined approach which includes cognitive, emotional, and behavioral aspects and will lead to injustice beliefs, distrust feeling, and relevant actions against the organization (Rubin *et al.*, 2009). Mistrust toward the change includes losing trust to leaders. It is a reaction to previous change attempts

that actually or apparently are not successful. Mistrust is a belief to this fact that the change is probable for getting the organization better, but this will be far from the ideal for some reasons which are in control of the mistrust person (Wanous *et al.*, 1994). He also defined it as below: It is a mistrust look toward the successful of recent changes, because the Authorities carrying out the change are basically less motivated, disqualified, or both of them. Stanley *et al.* (2005) believed that mistrust toward the changes reflect in the organization, but it will not determine the mistrust of a person toward a specific plan. Therefore, they propose the structure of mistrust toward a specific change. One of the ways for control and managing mistrust of personnel in each organization is identifying the factors which create, improve and spread the mistrust of individuals. In this survey only four factors of hostile personality, organizational justice, psychological contract violation, and cooperate in decision making are selected as the important factors of mistrust toward organizational change, despite the existence of stimulator for occurrence and prevalence of mistrust toward organizational changes.

**First variable:** Hostile personality; it follows the description of mistrust individuals behaviors from their personality characteristics.

**Second variable:** Organizational justice; express the perception of individuals about the content, payment process, dealing with personnel after the implementation of a change plan.

**Third variable:** Psychological contract violation; it define the mistrust toward organizational change as the result of not meeting the previous expectations.

**Fourth variable:** Cooperation in decision making; it is on the assumption that the lack of knowledge of individuals about organizational change decisions effects their mistrust about change plans.

**Negative and hostile personality:** Many researches have been conducted on the relationship of personality

characteristic with organizational variables such as job performance, motivation and attitude. There are two streams of thought dominant about mistrust phenomena among the researchers and pundits: mistrust as a personality stable characteristic, and mistrust as certain structures related to community, professional, entities and organizational change (Abraham, 2000). Despite the situational mistrust which opens to certain things (Andersson, 1996), personality mistrust is general and include many things (Andersson, 1996). Individual who are distrust to all peoples, consider them trickster and unreliable, condemned to failure all things, may be mistrust toward the change plan, because in their view, firstly those who are authority of conducting change plans are seeking their own interests not others; secondly they don't deserve conducting change plans and in a word, no one can be trusted. Some researchers said that there is a relationship between personality mistrust and organizational mistrust (Andersson, 1996).

#### **Organizational justice**

How to behave with personnel so that they feel justice is an issue that is proposed in the structure of organizational justice. We have three categories of distributive, procedural, interactional in the classification of organizational justice. Distributive justice is about the observance of fair and equality in the distribution of rewards, resources. Procedural justice indicates the perceived justice from the process of reward and interests distribution.

Interactional justice emphasizes on the equal and respectful behavior of managers with individuals. Some researchers such as Bernerth *et al.* (2007) and Ribbers (2009) found a negative correlation between interactional justice and mistrust to organizational change.

If giving reasonable proofs by respect to personnel during the conduction of organizational change plans, the interactional justice sense will be created in them and the mistrust to change factor and

organizational change plan will decrease. The interactional justice is related to cognitive, feeling, and behavioral negative reaction toward the manager of organizational changes, because the interactional justice is determined by management behavior (Cohen-Charash and Spector, 2001).

### **Interactional justice**

The interactional justice is related to cognitive, feeling, and behavioural reaction toward the manager, because the interactional justice is determined by management behaviour. Interactional justice has a negative effect on the feeling of mistrust to organizational change. In addition to above hypothesis, studies showed that the main parts of procedural justice of changes aims may react positively when the changes are conducted with primary notes and on the basis of official criterion. On the other hand, the probability of formation of destructive behaviors, negative attitudes, and mistrust reactions is high when the actions of change leaders are not in accordance with principles of justice (Mishra and Spreitzer, 1998).

### **Procedural justice**

Few researches (Ribbers, 2009) found a significant negative relationship between procedural justice and mistrust, though do not find any significant relationship. Procedural justice has a negative effect on the feeling of mistrust to organizational changes. Adams' equity theory 1965 is based on the ratio of inputs and consequences that should be balanced theoretically. If personnel don't perceive the change attempt or feel that the change will damage its consequences, they may balance the equation by resistance or destruction in the view of cognitive heterogeneity (Festinger, 1962), the unpleasant experience will persuade personnel to reduce in unpleasant about the change, the heterogeneity indicates reevaluation of cognitions. If the personnel still have no perception and beliefs about the change results, they may quit or take resistance with mistrust to their way

(Brandes *et al.*, 2007).

### **Distributive justice**

Studies showed that the perception of personnel about the distributive justice in the organization (payment level, an increase of income, promotion) has a relationship with variables such as job satisfaction, movement, performance, efficiency, organizational commitments, and organizational citizenship behavior. Personnel that feel inequity will react to this inequity by some negative reactions such as negligence, weak citizenship behaviors, and quitting (Greenberg, 1993).

### **Cooperation in decision making**

Despite the strong theoretical foundations, cooperation structure has conceptual problems in decision making. In a way that many definitions, kinds, and models are seen for the literature review. This structure indicated the ratio of the effectiveness of personnel. Personnel that are capable of influence decision about themselves are probably accepting the consequences of the decision. Black and Gregersen (1997) said that feeling of inequity caused separation of mistrusts persons from the others and the free relationships and cooperation may help to the creation of equity. In addition to that, the experience of personnel from the organization is heavily under shadowed by of their supervisor behavior. Treadway *et al.* (2004) believed that the role of supervisors and managers are too important in reducing or spreading mistrust. Therefore, persuading managers to select cooperative management has an effective potential on the level of mistrust (Brown and Cregan, 2008).

### **Psychological contract**

Most organization give some promises to their personnel at the time of hiring such as insurance, income enhancement, education, place of living, place of serving, and etc. a kind of psychological contract is created when a personnel accepts that his deeds committed the organization to compensation (Andersson, 1996).

**Organizational health**

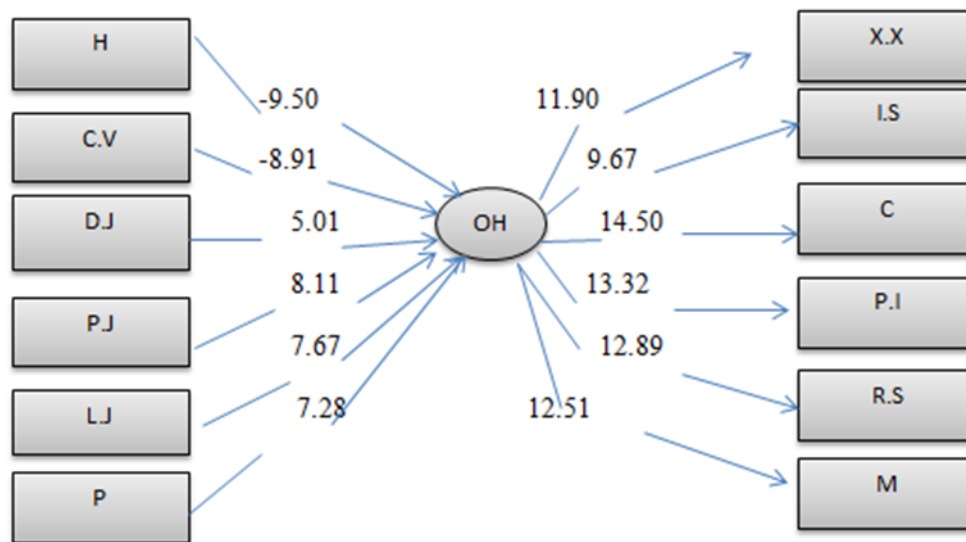
Organizational health has been proposed as an important issue in studies and field applications after the 1980s before the raising of the term, a belief existed that said problems of the educational system are created by elements within the system and outside elements such as migration, population growth, and insufficient funds. Solutions were searched. The term organizational health has provoked researchers to concentrate on the relationships between within the organization environment and outside organization. In addition to that, the term organizational health makes the way for innovative methods in the educational system.

According to this, experts and policy makers speak about the need for moving from central structure to the decentralized structure. The relationship between organization health and managerial styles of managers of 50 high school and 12 pre-university. They won't look at any significant difference among seven compounds factors of organizational health in high schools and pre-university centers. He came to this conclusion that the maximum score is for morale and the least score is for principal influence. Some researchers notice many similarities between

organizations and humans. They said that an organization just like a human can be sick or healthy. Organism should operate totally coordinate for an organization in order to keep it healthy. A healthy organization is operated on a regular basis and present product and service in an effective manner. The level of organization health is related to the ability of organization in achieving the goals (Judge *et al.*, 2008).

**MATERIALS AND METHODS**

The present study is descriptive-survey. To collect data, six standard questionnaire with a seven range answers (1= absolutely disagree to 7=absolutely agree) were used; istrust to organizational changes (Reichers *et al.*, 1997) organizational justice, (Johnson and O'Leary-Kelly, 2003), personality mistrust (Stanley, *et al.*, 2005), cooperation in decision making (Fleming, 2005), psychological contract violation (Dean *et al.*, 1998), and organizational health questionnaire. Were noted Statistic population of this study are staffs of Sina, Shariati and Imam Khomeini hospital, who are about 700 people. Sampling is done by Cochran equation. 300 questionnaires have been distributed and collected, of which 260 of them were complete and analyzed



**Figure 1. Numbers of the significant coefficient, evaluating a model of mistrust factors effect on organizational health (Chi-square= 59, 40 ; Df=49; P-value=0.000)**

Table 1. Values of final direction model

S. No	Direct relations of variables in model	Standardized value	Standard error	T value	Level of significant	
1	Personality mistrust	0.83	0.1	10.12	P<0.01	
	Psychological contract violation	0.66	0.1	7.23	P<0.01	
	Mistrust toward the changes	Distributive justice	-0.43	0.1	-5.19	P<0.01
	Procedural justice	-0.63	0.1	-7.07	P<0.01	
	Interactional justice	-0.55	0.1	-6.14	P<0.01	
	Cooperation in decision making	-0.51	0.1	-5.98	P<0.01	
2	Personality mistrust	-0.63	0.1	-9.50	P<0.01	
	Psychological contract violation	-0.57	0.1	-8.91	P<0.01	
	Organizational health	Distributive justice	0.39	0.1	5.01	P<0.01
		Procedural justice	0.54	0.1	8.11	P<0.01
		Interactional justice	0.51	0.1	7.67	P<0.01
		Cooperation in decision making	0.48	0.1	7.23	P<0.01
		Mistrust toward change in organization	0.60	0.1	-8.14	P<0.01

statistical analysis were carried out using SPSS.

## RESULTS

According to Figure 1 we can infer that all obtained coefficients became significant, because the value of significant of each one of them is greater than 2 and less than -2.

As you can see in Table 1, there is a relationship between the effective factors on mistrust of personnel toward change in the organization and organizational health in mentioned hospitals.

### Effective factors about the mistrust of personnel toward change

#### Hypothesis test

There is a significant relationship between the effective factors on mistrust of personnel toward change in the survey.

Table 2. Statistic value of the Hypothesis-I

S. No	Numbers	260
1	Chi square	85.3
2	Degree of freedom	5
3	Level of significant	0.001

**H<sub>0</sub>:** There is no significant relationship between the effective factors on mistrust of personnel toward change in the survey.

**H<sub>1</sub>:** There is a significant relationship between the effective factors on mistrust of personnel toward change in the survey.

According to Table 2, the level of significant is less than 0.05 and is about 0. Therefore, the H<sub>0</sub> is not confirmed at the level of 95% of certainty. So we can say that independent components do not have equal ranking.

### Second hypothesis

There is a significant difference between the aspects of organizational health.

**H<sub>0</sub>:** There is no significant difference between the aspects of organizational health.

**H<sub>1</sub>:** There is a significant difference between the aspects

Table 3. Statistic value test

S. No	Numbers	90
1	Chi square	156.071
2	Degree of freedom	7
3	Level of significant	0.001

of organizational health.

According to Table 3, the level of significant is less than 0.05 and is about zero. Therefore  $H_0$  is not confirmed at the level of 95% certainty. So we can say that independent compounds do not have equal ranking.

## **DISCUSSION**

Shariatmadari in 2009 examined the relationship between organizational health and the effectiveness of school managers of educational management of district five of Tehran. A pattern which is divided into six parts of consideration, initiating structure, resource support, morale, academic emphasis, and institutional integration was used to examine the aspects of organizational health. A pattern that divides the effectiveness into six aspects of leadership, helping students, constructive relationships with parents, appropriate behavior with teachers, ability to evaluate employees, and running school affairs was used for examining the effectiveness. In this survey, the relation of organizational health and its aspect with effectiveness is examined. Results showed that there is a significant relationship between all aspects of organizational health (consideration, initiating structure, resource support, morale, academic emphasis, and institutional integration) and organizational effectiveness. If the school managers try to apply methods of creating organizational health, effectiveness of their schools will be improved in all aspects.

Iranzadeh and Khalib (2008) examined the relationship between organizational health and efficiency of personnel employed in Islamic Azad University of Tabriz; two questionnaires of efficiency and organizational health were used to collect data. The efficiency questionnaire was self-made questionnaire which was designed on the basis of ACHIEVE model and consist of elements (decision credit, Job cognition, performance feedback, compatibility with the environment, workplace satisfaction, motivation. An

organizational health questionnaire was a standard questionnaire and it used Parsons view which consists of consideration, initiating structure, resource support, morale, academic emphasis, and institutional integration for evaluation of different aspects of organization health. Results of analyzing data showed that the efficiency of the personnel of Islamic Azad University of Tabriz was more than medium; in other word it is almost desirable. But the organizational health of Islamic Azad University of Tabriz was less than medium and it is undesirable. There is a relationship between organizational health factors (consideration, initiating structure, resource support, morale, academic emphasis, institutional integration, and Manager's authority) with the efficiency of personnel employed in Islamic Azad University of Tabriz.

Ajzen and Fishbein (1980) concluded from their research under the title of examining the effect of outside environment on organizational health that healthy schools have less pressure from outside, while unhealthy schools have more pressure from outside environment.

Eaton (2000) conducted a research under the title of the relationship between teacher's perception of organizational health of school and the trust of teachers to the manager, co-workers and organization. The results showed that there is a significant correlation between the perceptions of teacher, organizational health, trust to manager, trust to co-worker, and school. Based on the results of the study we can conclude that the negative and hostile personality effect the organizational changes in staffs of Sina, Shariati, and Imam Khomeini hospitals. Negative and hostile personalities can increase mistrust of personnel toward organizational change up to 83 percent.

Distributive justice affects the mistrust of personnel toward the organizational changes of staffs of Sina, Shariati and Imam Khomeini hospitals. Distributive justice can decrease the mistrust of staffs

toward organizational change up to 43 percent.

Procedural justice affects the mistrust of personnel toward organizational change in staffs of Sina, Shariati, Imam Khomeini hospitals. Procedural justice decreases mistrust of personnel up to 63 percent.

Interactional justice affects the mistrust of personnel toward organizational change in staffs of Sina, Shariati, Imam Khomeini hospitals. Interactional justice decreases the mistrust of personnel up to 55 percent.

Cooperation in decision making affects the mistrust of personnel toward organizational change in staffs of Sina, Shariati, and Imam Khomeini hospitals. It decreases the mistrust of staffs up to 51 percent. Psychological change violation effect the mistrust of personnel toward organizational change in staffs of Sina, Shariati, Imam Khomeini hospitals. Psychological change violation increases the mistrust of personnel toward organizational change up to 83 percent.

Negative and hostile personality affects the organizational health in staffs of Sina, Shariati, and Imam Khomeini hospitals. It decreases organizational health in personnel up to 63 percent.

Distributive justice affects the organizational health in staffs of Sina, Shariati, and Imam Khomeini hospitals. It increases the organizational health up to 39 percent.

Procedural justice affects the organizational health in staffs of Sina, Shariati, and Imam Khomeini hospitals. It increases the organizational health in personnel up to 54 percent.

Interactional justice affects the organizational health in staffs of Sina, Shariati, and Imam Khomeini hospitals. It increases the organizational health of personnel up to 51 percent.

Cooperation in decision making affects the organizational health in staffs of Sina, Shariati, and Imam Khomeini hospitals. It increases the organizational health in personnel up to 48 percent.

Psychological contract violation affects the organizational health in staffs of Sina, Shariati, and Imam Khomeini hospitals. It decreases the organizational health in personnel up to 57 percent.

Effective factor in mistrust of staffs of Sina, Shariati, and Imam Khomeini hospitals toward organizational changes affects the health. It decreases the organizational health in personnel up to 60 percent.

## CONCLUSION

We can conclude that the hostile and distrust personality have the most effect on the mistrust toward change in organization, and the distributive justice has the least effect among all six factors.

## SUGGESTIONS

The following suggestions are presented based on the results of the study.

- Examining the study subject in similar private companies
- Examining roles of other variables such as organizational commitment, organizational culture on organizational health
- Designing health pattern for private and public organizations at general level.

## REFERENCES

- Abraham R. 2000.** Organizational cynicism: Bases and consequences. *Genetic, social, and general psychology monographs*, 126(3): 269-292.
- Ajzen I and Fishbein M. 1980.** Understanding attitudes and predicting social behaviour. Prentice-Hall, 278 p.
- Andersson LM. 1996.** Employee cynicism: An examination using a contract violation framework. *Human Relations*, 49(11): 1395-1418.
- Bernerth JB, Armenakis AA, Field H, and Walker HJ. 2007.** Justice, cynicism, and commitment a study of



important organizational change variables. *The Journal of Applied Behavioral Science*, 43(3): 303-326.

**Black JS and Gregersen HB. 1997.** Participative decision-making: An integration of multiple dimensions. *Human Relations*, 50(7): 859-878.

**Brandes P, Castro SL, Matrecia James SL, Martinez AD, Matherly TA, Ferris GR and Hochwarter WA. 2007.** The interactive effects of job insecurity and organizational cynicism on work effort following a layoff. *Journal of Leadership and Organizational Studies*, 14(3): 233-247.

**Brown M and Cregan C. 2008.** Organizational change cynicism: The role of employee involvement. *Human Resource Management*, 47(4): 667-686.

**Cohen-Charash and Spector PE. 2001.** The role of justice in organizations: A meta-analysis. *Organizational behavior and human decision processes*, 86(2): 278-321.

**Dean JW, Brandes P and Dharwadkar R. 1998.** Organizational cynicism. *Academy of Management review*, 23(2): 341-352.

**Eaton JA. 2000.** A social motivation approach to organizational cynicism. Doctoral dissertation, York University Toronto, Canada. 1-133 p.

**Festinger L. 1962.** A theory of cognitive dissonance (Evanston, IL: Row Peterson, 1957). Introduction and passim. 291 p.

**Fleming P. 2005.** Metaphors of resistance. *Management Communication Quarterly*, 19(1): 45-66.

**Greenberg J. 1993.** Justice and organizational citizenship: A commentary on the state of the science. *Employee Responsibilities and Rights Journal*, 6(3): 249-256.

**Iranzadeh S and Khalili M. 2008.** Productivity and

quality management. 1<sup>st</sup> ed., Tabriz: Islamic Azad University of Tabriz Press.

**Johnson JL and O'Leary-Kelly AM. 2003.** The effects of psychological contract breach and organizational cynicism: Not all social exchange violations are created equal. *Journal of Organizational Behavior*, 24(5): 627-647.

**Judge TA, Klinger R, Simon LS and Yang IWF. 2008.** The contributions of personality to organizational behavior and psychology: Findings, criticisms, and future research directions. *Social and Personality Psychology Compass*, 2(5): 1982-2000.

**Mishra AK and Spreitzer GM. 1998.** Explaining how survivors respond to downsizing: The roles of trust, empowerment, justice, and work redesign. *Academy of management Review*, 23(3): 567-588.

**Naus F, Iterson A and Roe RA. 2007.** Value incongruence, job autonomy, and organization-based self-esteem: A self-based perspective on organizational cynicism. *European Journal of Work and Organizational Psychology*, 16(2): 195-219.

**Reichers AE, Wanous JP and Austin JT. 1997.** Understanding and managing cynicism about organizational change. *The Academy of Management Executive*, 11(1): 48-59.

**Ribbers IL. 2009.** Trust, cynicism, and organizational change: the role of management. Unpublished Master thesis. Faculty of Economics and Business Administration Tilburg University. Consultado Enero, 22 p.

**Rubin RS, Dierdorff E, Bommer WH and Baldwin T. 2009.** Do leaders reap what they sow? Leader and employee outcomes of leader organizational cynicism about change. *The Leadership Quarterly*, 20(5): 680-688.

**Shariatmadari M. 2009.** Survey in behavioral sciences, Tehran: Koohsar

**Stanley DJ, Meyer JP and Topolnytsky L. 2005.** Employee cynicism and resistance to organizational change. *Journal of Business and Psychology*, 19(4): 429-459.

**Treadway DC, Hochwarter WA, Ferris GR, Kacmar CJ, Douglas C, Ammeter AP and Buckley MR. 2004.** Leader political skill and employee reactions. *The Leadership Quarterly*, 15(4): 493-513.

**Wanous JP, Reichers AE and Austin JT. 1994.** Organizational Cynicism: An Initial Study. *Academy of Management Proceedings*, 1: 269-273.

Submit your articles online at [www.jresearchbiology.com](http://www.jresearchbiology.com)

**Advantages**

- **Easy online submission**
- **Complete Peer review**
- **Affordable Charges**
- **Quick processing**
- **Extensive indexing**
- **You retain your copyright**

[submit@jresearchbiology.com](mailto:submit@jresearchbiology.com)

[www.jresearchbiology.com/Submit.php](http://www.jresearchbiology.com/Submit.php)