

# EMOTIONS IN ORGANIZATION: MORE THAN MERE FLUCTUATIONS

Pavel O. Luksha<sup>1</sup>

## 1. Role of emotions within organization

### Emotions as a neglected factor

Organizational scientists, economists and sociologists have generally focused on organizations as rationally designed and operated structures. The set of technologies that bring organization incumbents into collective action, hierarchies that formally structure relationships within the group, and rationally built incentives that motivate organization participants to stick to common goals were viewed as organizational carcass. To this solid ‘skeleton’, ‘tissues’ of interactions and relations between individuals are attached. All deviations from the ‘carcass’ are seen as mere fluctuations, random variations around the formally defined organizational components.

Evidently, many phenomena of internal organizational dynamics cannot be described by this simplified representation. Qualities of individual personalities and complexity of internal psychic life are ignored. Aspects of group dynamics (conformism, informal leadership etc.) and factors of sociality (customs, traditions, norms of behaviour that determine communicative openness and readiness for cooperation) are disregarded.

Within certain developments of the organizational theory (and economic theory of the firm in particular) these factors are treated as insignificant and irrelevant to theoretical explanation of the existence and evolution of organization. However, they constitute, or arise as a consequence of, certain dynamic capabilities of organization: abilities of organization to integrate, create, and reconfigure internal and external resources to match its changing environment (Teece, Pisano, Schuen, 1997). These ‘additional factors’ to a large extent form the ‘social glue’ that keeps together the participants of the collective action. Most important are affective agencies driven by shared values, emotions and moods (Brief, Weiss, 2002). Role of affective agencies has been studied in early years of organizational and management sciences, and they were mostly associated with surveys of worker’s job satisfaction (Fisher, Hanna, 1931; Hoppock, 1935).

Frequently, emotions and moods are described as ‘stochastic disturbance’, irrational factor that breaks the smooth work of firm mechanism, by deflecting objectivity of reasoning and invoking instability of actions. Following the Aristotelian stance, with the privileged position of reason, efficient organizational functioning was seen as possible only if organizational participants behaved in rational (implying ‘emotionless’) manner (Fineman, 2000).

---

<sup>1</sup> Centre for Research in Institutional Economics, University of Hertfordshire, UK, and Higher School of Economics, Moscow  
email: [pavel.luksha@gmail.com](mailto:pavel.luksha@gmail.com); tel. no. +7 495 5458755

However, there have been many objections against this view. Emotions were proven to be an important element of cognitive processes (Sloman, 1982; Mandler, 1984; Lazarus, 1991), and a necessary component of individual activity motivation (Klopf, 1982; Jauregui, 1995). Emotional factors constitute an integrative part of living people relationships, and have high importance in interpersonal communications. In a number of cases (e.g. in family firms) it is not even possible to motivate the existence and structure of organization without considering relational aspects (in which emotional interactions play important role) – the need for development of shared vision, collective narratives and decision commitment (Mustakallio et al., 2002).

Emotions do not necessarily lead to irrational (and non-efficient) behaviour, and frequently they increase individual adaptability within organization, improve individual cognitive capabilities (Bless, Fiedler, 2005) etc. In other words, influence of emotional factors provides significant impacts for positive organizational dynamics. Personal qualities of individual members and character of their relationships are important for appropriate integration within the firm, and may increase its competitiveness and maintain the necessary rate of its growth (Forgas, George, 2001).

Any organization can be considered as a system of ties between its members (Grannovetter, 1973). Unification of individuals into stable groups produces a new quality: semantic and emotional attachment to each other.

Sense-making and sense-sharing have been underlined as important organizational process to establish collective agency (Weick, 1995): participants of the collective action need a common ‘semantic field’. The key role of this field is to limit a class (set) of messages (meaningful actions) (Bateson, 1972), i.e. acts as a ‘frame’ of meaning. The focus of semantic fields is to resolve double contingencies – situations of the uncertain context (Dittrich, Kron, Banzhaf, 2003)

Sense-sharing is frequently achieved through non-verbal communications, an not only by codified prescriptions. Since ‘frame’ is linked with the institutional context of organization, it sets the character and the boundaries of organization-specific knowledge and possibilities of intra-organizational cooperation (Erkens, Andriessen, 1994). Personal qualities of agents are highly relevant, since knowledge transfer occurs always on the inter-personal level (Allen, 1977; Levin, Cross, Abrams, 2002). Sense-sharing leads to formation of similar value systems, and thus increases the mutual coordination of members of the organization.

Sharing of meaning is frequently restricted to codified / codifiable knowledge sharing. But no less important (and frequently neglected) is the formation of emotional attachments of individuals to each other in the course of group activities. Such an attachment can be produced either as a consequence of common actions, e.g. a successfully completed project (Frijda, 1988) or it can initially exist in organization as an unmotivated positive attitude towards partners (Sitkin & Roth, 1993).

The aspect of emotional attachment has principal differences from the popular notion of ‘social capital’ (Bourdieu, 1983; Coleman, 1988; Putnam, 2000). The concept of ‘social capital’ presupposes the existence of mutual liabilities and mutual trust that can be used to obtain individual benefits. It is described by the followers of this concept as one of the social productive forces, frequently acting on inter-organizational (not intra-organizational) level, and similar to other forms of capital. In order to measure ‘social capital’, complexity and variety of human relationships is reduced to a scalar indicator (Schuller, 2000). In fact, this is an attempt to mend inconsistencies of neoclassical economic theory by introducing an additional instrumental variable that describes ‘sociality’.

### Positive effects of emotional factors

Through established and supported emotional attachments, a system of their obligations to organization (known as ‘commitment’) arises. The concept of commitment is central to Human Resource Management analysis, and the focus of this discipline is to ensure positive outcomes of arising employment commitments (Muthuveloo, Che Rose, 2005, p. 1078).

In publication by Allen and Meyer (1991), three components of commitment stemming from formation of attachment are considered:

- affective commitment is associated with employee emotional attachment to, and identification with, organization (based on positive feelings that arise towards organization due to comfortable working environment, friendly colleagues etc.);
- continuance commitment refers to possible costs of breaking with organization (e.g. fear of losing familiar work partners and relationships, exclusion from ‘common activity’, etc.);
- normative commitment is related to employee’s feeling of obligation towards organization, resulting from internalization of organizational goals and values (sharing of values and goals, even without evident individual incentives).

Despite the fact that enlisted types of commitment have qualitatively distinct properties, all of them presume (in the course of formation and maintenance) established emotional binding between the individual employee, and the group.

Emotional attachments thus produce a distinct organization-specific resource that has its own value in development of organization competitiveness. Following specific effects need to be mentioned:

- (1) arising individual responsibility for one’s own allotted work: the opposite of opportunism, a worker performing tasks in good faith (Brown, 1996),

(2) increased sense of belonging to organizational flows and activities, due to sharing of goals and values on non-rational level, self-identification with organization and thereby arising enthusiasm (Lewicki & Bunker, 1996; George, Jones, 2001),

(3) growing trust (both unconditional and conditional) in intra-organizational interactions, leading to increasing efficiency of collective work, since norms and sanctions are developed, and responsibilities and expectations of participants are defined (Krackhardt, 1992; Nahapiet & Ghoshal, 1998; Ferres et al. 2004).

These factors within organization can increase its productivity and thus sustain its competitive advantages.

Apart from that, emotional attachment creates the potential for development of other organization-specific resources. Strong links between individuals enforce effects of organizational learning and development of organization-specific knowledge (Gnyawali, 1999). Positive affects improve collective problem-solving capacity, especially when creative tasks are considered (Isen, 1999). Moods act as regulatory 'tools' of information flows within organization, supporting deeper comprehension of information and more attentive elaboration of decisions (Bless, Fiedler, 2005; Fisher, Ashkanasy, 2000).

From psychological point of view, emotional components of knowledge producing and processing, decision making and decision implementation within organization are inevitable. Decisions are created through emotionalized social discourses, serving as lubricants of rationalization: helping to prioritize, turning impossibilities into possibilities, and resolving dilemmas (Fineman, 2000).

### Negative role of emotional factors

Role of high emotional attachment within organization should not be overestimated. Strong bindings between individual participants of organization can, under certain conditions, destroy organizational competitiveness. The consequence of attachment can be the inability of sober and realistic evaluation of business situation, related to conformism and willingness to restrict conflicts within organization (Hackman, 1976). A serious trouble can arise from inability to deploy 'wrong people' or useless resources, in family firms (Kaye, 1996) as well as in corporations (Ross, Staw, 1993). Thus, attachment of individuals to each other (formation of groups and informal structures) is one of the factors behind the structural inertia of the firm (Hannan, Freeman, 1989, p.70) – and not always to the benefit of the firm itself.

Apart from that, there are other well-known negative impacts of emotional factors in organization. Emotion (esp. negative, such as a feeling of fear or hate) can disrupt normal procedural flows, break working relationship, disrupt reasoned judgment and

decision-making. Dissatisfaction of job, or disliking of particular colleagues, can turn employee less productive and overall inefficient (Ashkanasy et. al., 2000).

Perception of these factors as threatening to organization led, for a long time, to confining of studies of emotion in organization solely to issues of job satisfaction (Brief, Weiss, 2002, p.281). The emotional life of organization, however, is a complex process that has both positive and negative aspects. The key issue for this process is how moods and emotions are produced within organization.

## **2. Emotional networks**

### Communicative dimension of organization

Attachment of individuals to each other demands unceasing mutual confirmations in collective actions and intra-organizational communications (Butler, 1983). The unity produced cannot be formalized and codified, there is no possibility to express it in contractual terms, it cannot be rationally designed and implemented, but still it is greatly responsible for the existence of organization.

The Luhmannian tradition (Luhmann, 1986, 1995; Bednarz, 1988) envisages an organization as an autopoietic system of replicated communications. Social systems are considered as communication networks carried by actors at the nodes. Due to actor reflexivity, recursive loops are introduced into the network. The network thus perpetuates itself, and organizes itself dynamically as communications progress. On the micro-level, organization, or enterprise is seen as a coherent network of objects and processes, reproducing itself as a whole within the domain of communications.

Even outside the Luhmannian perspective it is admitted that communications are central to organization, as they are at the core of our social nature. As Watzlawick, Beavin et al. (1967) indicate, “people cannot *not* communicate – even when we ignore another person, something is communicated.” Contractual arrangements formally structure organizations, and they inevitably presuppose communication for contracts to be established and maintained (Williamson, 1985). Informal relationship networks can only persist as regular communications between organization incumbents.

The stability of organization requires unceasing organizational autopoiesis, or reproduction of communicative system (Luksha, 2005). In order for organizational autopoiesis to occur, stable networks of relationships have to be established, including emotional relationships. Seen in this manner, emotional attachment emerging within organization is an integrative part of organizational self-reproduction process.

## Emotional dimension of communications

Theories of social communication identify four major types of communication (Taylor, Rosegrant, Meyer, 1986): intrapersonal, interpersonal, public, and mass communication. In organization, interpersonal and public communications play particular role: one-to-one or one-to-many communications through various types of media.

These human communications always have an emotional dimension that expresses itself in many ways, summarized by Cox (2003) as “a valanced response to an action or the incarnation of a cognitive process, either of whose degree’s of manifestation can be determined by the eliciting situation, or memory(s) of a similar situation”. Accordingly, emotions are most relevant to repeated communicative interactions: dialogues, in which participants play roles of talkers and listeners, consequently. Emotions are related to cognitive processes, both as mere reactions and as motives that drive further actions.

Accordingly, emotions act both as drivers of, and consequences of, communicative activities. There are evidences that human actions are largely driven by emotion: for example, LeDoux (1996) demonstrates, through the research of neural basis of emotional states, that emotions constitute the major motif and, once activated, push to act. Coupled with the context of communicative interactions within the society, emotions become the major factor of social activity maintenance, energy that keeps social processes together. Similar statements are made within the studies of social behaviour in animals, where it is revealed that emotion in communication (and communication of emotion) is particularly important (and most frequently occurs) when social reciprocity is expected (Panskepp, 2000).

Emotions convey important non-verbal messages, that refer to acceptability and appreciation of social situations. In certain instances when ability to convey emotions is restricted, such as in technologically mediated communication (e.g. Internet), important meanings of communication can get lost (Cox, 2003). This may refer in part to conveyance of intonations in the speech, or vocal affections (Scherer, 1986).

But no less important is conveyance of signals through our body: poses, mimics, and gestures. Using our own bodies to manifest emotions, and observing each others’ bodies in the course of social actions / interactions is an important part of our social life. Yet, role of body in social sciences only started to receive recognition (Pirani, Varga, 2005).

Bodily factors are especially important to emotional life because all aspects of our consciousness and unconsciousness are embodied: that is, they are grounded within our body, primarily (though not exclusively) within our central nervous system. Cartesian separation of body and soul did not stand the test of modern science, as neuroscience has been able to demonstrate. Several concepts regard emotions as stemming from brain-body communication (Jauregui, 1995; Damasio, 1995): emotions serve the body to

inform the brain about inconsistencies in the environment, and to provide motif for corrective action. With bodies entering into social interactions, emotions keep their initial functions – and so they start to serve warning signals that allows prediction of reaction and forthcoming action from counterparts. Learning to recognize, and especially to invoke, certain emotions is evolutionary beneficial – it is why development of emotional intelligence (Goleman, 1995) can be so important.

Seen from this perspective, the desire to restrict, or even cease, emotional life within organization is a pointless, and even a dangerous task. The contradiction between rationality and emotion is evidently false. This ‘contradiction’ may in fact be a recognition of the well-known functional specialization of left and right hemispheres of human brain, known as ‘cerebral asymmetry’ (Springer, Deutsch, 1998). Numerous studies (Gainotti, 1972; Sackheim, Gur, 1978) demonstrated that right hemisphere is far more active in emotional reactions. Later, EEG study by Davidson et al. (1990) confirmed specialization yet showed that emotional life occurs in both hemispheres: positive emotions associated with activation of left hemisphere, and negative emotions associated with activation of right hemisphere. Emotions inhere to our brain no less than rationality, and may even refer to more ancient and fundamental parts of it (Rolls, 2005).

### Organization as ‘machine of emotions’

The recognition of importance of emotions, and role they play in communication, calls to revise the way the social organization is viewed. Emotions may be seen as central to social self-reproduction, the social autopoiesis. However, in the Luhmannian perspective, role of emotions has never been emphasized. Luhmann himself attributes maintenance of communications to individual reflexive capability – and reflection, in Western tradition, is seen primarily as a mental act, something that occurs through thinking more than through feeling. On the other hand, Luhmann does not insist on the exclusively rational nature of reflexivity, suggesting that rationality is a retrospective scheme of observation.

Keeping in line with this logic, Nassehi (2005) suggests that organizations are ‘decision machines’. Organizations “emerge as a special form of languid stability by institutionalizing transparent roles and positions, redundant procedures, and repeatable practices”, and “continue themselves by connecting decision to decision”.

However, as previous discussions show, emotions are embedded within decisions yet come prior to decisive reasoning. Unlike decisions, emotions have necessary characters to become engines of communication persistence. Ortony, Clore and Collins (1998) indicate that “emotional states themselves can become emotion-inducing events and lead to new emotions”.

In addition to that, extensive critique has been raised against the range of concepts which picture socio-economic agents as constant decision-makers. Decisions are only taken in situations of substantial novelty, while the majority of our actions is routinized (Nelson, Winter, 1982), turned into habits (Hodgson, 1988). These habits form through economy of consciousness, that “the process of habit formation is a sinking down of knowledge to less conscious and more archaic levels” (Bateson 1978 p114). While decisions are as superior and conscious phenomena of psychic life, emotions are fundamental and grounded within these ‘archaic levels’.

I would suggest that, rather a machine of decisions, the organization should be seen as a sort of ‘communicative emotion machine’, that produces and replicates specific affective states of its participants in the course of interpersonal communications. Emotions are thus maintained within organizations as interpersonal phenomena, that are regularly requested and provided.

Bringing back the issue of organizational self-reproduction, replication of a stable range of emotions seems to be one of its crucial preconditions. Stability of organization cannot be provided by contractual relationships alone, and it needs additional factors that can never be specified by contracts (this is known as ‘impurity principle’ (Hodgson, 1988: 167-171)). Among these are fundamental ‘social’ emotions, that refer to the sense of unity, commonness, and belonging.

These emotional states are important not only because they allow to maintain organization, but because they allow to distinguish it beforehand. Using the terminology of Spencer-Brown (1972), one has to draw a distinction, i.e. to identify a quality that describes a social organization. An organization can exist only because people inside the group know they belong to a group distinguished by some quality, and people outside the group recognize a group by this quality. And, apart from formal qualities (e.g. a legal contract – which is not always drawn), informal qualities are important. Reproduced emotional states that exist within the group but not outside the group can be seen as one of the qualities by which an organization is identified.

Organizations are communications, and communications embed emotions. Emotions themselves therefore appear not as individual-specific, but as organization-specific state of individual, related to individual being within organizational structure.

### **3. Conclusion**

As the paper attempts to show, considering emotions within organizations as disturbing factors or mere fluctuations is inappropriate. Emotions play important role in human cognitive processes and actions. Their function in interpersonal communications is essential, as they can serve the major shove for reproduction of communicative interactions, and thus for organizational maintenance.

In organizations, relationship of individual with other members of the social network are transformed to form a different level of unity. This is linked with the emergence of new qualities within these relations, the formation of mutual emotional attachments of members, that form the ‘mount’ of organizational dynamics. Interfering with consciously designed components of organization, these attachments also produce organization-specific resources and capabilities (Luksha, Bilousenko, 2006). Emotional set-up thus cannot be considered a fluctuation, but an important layer and a determinant of organizational dynamics.

## REFERENCES

1. Ashforth, B., Humphrey, R. (1995). “Emotion in the workplace: A reappraisal”. *Human Relations*, 48(2), 97-125.
2. Ashkanasy N., Hartel C., Zerbe, W.. (eds.) (2000) *Emotions in the Workplace: Research, Theory, and Practice*. Westport, CT: Quorum Books.
3. Allen, T. (1977) *Managing the Flow of Technology*. MIT Press, Cambridge, MA.
4. Allen, N., Meyer, J. (1996) “Affective, Continuance, and Normative Commitment to the Organization: An Examination of Construct Validity”. *Journal of Organizational Behavior*, 49: 252-272.
5. Bednarz, J. (1988) “Autopoiesis: The Organizational Closure of Social Systems”. *Systems Research*, 5(1): 57-64.
6. Bless H., Fiedler K. (2005) “Mood and the regulation of information processing and behavior”. *Paper for Sydney Symposium on Social Psychology*.
7. Bourdieu, P. (1983) “Forms of capital”. In: Richards, J. C. (ed.) *Handbook of theory and research for the sociology of education*, NY: Greenwood Press.
8. Brief, A., Weiss, H. (2002) “Organizational Behavior: Affect in the Workplace”. *Annual Review of Psychology* 53: 279–307.
9. Brown, R. (1996) “Organizational Commitment: Clarifying the Concept and Simplifying the Existing Construct Typology”. *Journal of Vocational Behavior* 49: 230-251.
10. Butler, J. (1983) “Reciprocity of trust between professionals and their secretaries”. *Psychological Reports*, 53: 411-416.
11. Coleman, J. C. (1988) “Social capital in the creation of human capital”. *American Journal of Sociology*, 94: 95-120.
12. Cox, R. J. (2003) “What is the Value of Emotion in Communication: Implications for User-Centred Design”. *5th International Conference on Enterprise Information Systems Proceedings*, 4: 418-425.
13. Davidson R., Ekman P., Saron C., Senulis J., Friesen W. (1990) “Approach-Withdrawal and Cerebral Asymmetry: Emotional Expression and Brain Physiology”. *Journal of Personality and Social Psychology*, 58(2):330-341

14. Dittrich P., Kron T., Banzhaf W. (2003) "On the Scalability of Social Order: Modeling the Problem of Double and Multi Contingency Following Luhmann". *Journal of Artificial Societies and Social Simulation*. 6(1)
15. Edmondson, A. (1999) "Psychological safety and learning behavior in work teams". *Administrative Science Quarterly*, 44(2): 350-383.
16. Erkens, G., Andriessen, J. (1994) "Cooperation in Problem Solving and Educational Computer Programs". *Computers in Human Behavior*, 10: 107-125.
17. Ferres N., Connell J., Travaglione A. (2004) "Co-worker trust as a social catalyst for constructive employee attitudes", *Journal of Managerial Psychology*, 19(6): 608-622.
18. Fineman, S. (2000). "Emotional arena revisited". In S. Fineman (Ed.), *Emotions in organization*: 1-24. Thousand Oaks, CA: Sage Publications.
19. Fisher, C., Ashkanasy, N. (2000) "The Emerging Role of Emotions in Work Life", *Journal of Organizational Behavior*, Special Issue.
20. Fisher V., Hanna J. (1931) *The Dissatisfied Worker*. NY: Macmillan.
21. Forgas J., George, J. (2001) "Affective Influences on Judgment, Decision Making, and Behavior in Organizations: An Interactional Approach". *Organizational Behavior and Human Decision Processes*, 86: 3-34.
22. Frijda, N. (1988) "The laws of emotion". *American Psychologist*, 43: 349-358.
23. Gainotti, G. (1972) "Emotional behavior and hemispheric side of the lesion". *Cortex*, 8(1):41-55.
24. George, J., Jones, G. (1998) "The Experience and Evolution of Trust: Implications for Cooperation and Teamwork". *Academy of Management Review*, 23: 531-546.
25. Gnyawali D. R. (1999) "Inter-organizational learning dynamics: roles of networks on knowledge creation" *3rd International Conference of Organizational Learning*, Lancaster University.
26. Goleman, D. (1995) *Emotional intelligence*. NY: Bantam Books.
27. Granovetter, M. (1973) "The Strength of Weak Ties". *American Journal of Sociology*, 78: 1360- 1380.
28. Hackman, J. (1976) "Group influences on individuals", In: Dunnette, M. (ed.) *Handbook of Industrial and Organizational Psychology*, Chicago: Rand McNally
29. Hodgson, G. (1988) *Economics and institutions*. Cambridge, UK: Polity Press.
30. Hoppock R. (1935) *Job Satisfaction*. NY: Harper.
31. Isen, A. (1999) "Positive affect and creativity". In: S Russ (ed.) *Affect, Creative Experience, and Psychological Adjustment*: 3-17. Philadelphia: Bruner/Mazel
32. Izard, C.E. (1977). *Human emotions*. NY: Plenum.
33. Jauregui J. (1995) *The emotional computer*. Oxford: Blackwell.
34. Kaye, K. (1996) "When the Family Business is a Sickness". *Family Business Review* 9(4): 347-368.
35. Klopff H. (1982) *The hedonistic neuron*. NY: Hemisphere.

36. Krackhardt, D. (1992) "The strength of strong ties: The importance of philos in organizations". In: Nohria, N & Eccles, R. (eds.) *Networks and organizations*. Cambridge, MA: Harvard University Press.
37. Lazarus R. (1991) *Emotion and adaptation*. Oxford University Press.
38. LeDoux J. (1996) *The emotional brain*. NY: Simon & Schuster.
39. Levin, D., Cross, R., Abrams, L. (2002). "The Strength of Weak Ties You Can Trust: The Mediating Role of Trust in Effective Knowledge Transfer." *Best Papers Proceedings of the Academy of Management*.
40. Lewicki, R., Bunker, B. (1996) "Developing and maintaining trust in work relationships". In: R. Kramer, T. Tyler (eds.) *Trust in organizations*: 114-139. Thousand Oaks, CA: Sage.
41. Luhmann, N. (1995) *Social Systems*. Stanford University Press.
42. Luhmann N. (1986). "The autopoiesis of social systems." In: F. Geyer, J. van der Zouwen (eds.) *Sociocybernetic Paradoxes*: 172-192. London: Sage.
43. Luksha P. (2005) "Self-Reproduction of Enterprise: Von Neumann's Model Applied". In: K. Richardson (ed.) *Managing The Complex: Philosophy, Theory and Practice*. Greenwich, CT: Information Age Publishing. 1: 237-252.
44. Luksha P., Bilousenko M. (2006) "Economic Organization: Towards Synthetic Theory" (in Russian: Ekonomicheskaja Organizatsija: Na puti k sinteticheskoi teorii). *Voprosy Ekonomiki* (Issues of Economics), 2: 99-115.
45. Mandler G. (1984) *Mind and body*. NY: W.W.Norton & Company.
46. McAllister, D. (1995) "Affect- and cognition-based trust as foundations for interpersonal cooperation in organizations". *Academy of Management Journal*, 38: 24-59.
47. Meyer, J., Allen, J. (1991). "A three-component conceptualization of Organizational Commitment". *Human Resources Management Review* 1: 61-89.
48. Mustakallio M., Autio E., Zahra S. (2002) "Relational and Contractual Governance in Family Firms: Effects on Strategic Decision Making". *Family Business Review*, 15(3).
49. Muthuveloo R., Che Rose, R. (2005) "Typology of Organisational Commitment," *American Journal of Applied Science*, 2 (6): 1078-1081.
50. Nahapiet, J., Ghoshal, S. (1998) "Social capital, intellectual capital, and the organizational advantage". *Academy of Management Review*, 23: 242-266.
51. Nassehi A. (2005) "Organizations as decision machines: Niklas Luhmann's theory of organized social systems". *The Sociological Review* 53(1).
52. Nelson R., Winter S. (1982) *An Evolutionary Theory of Economic Change*. Cambridge, MA: Harvard University Press.
53. Ortony, A., Clore, G.L., Collins, A. (1988) *The Cognitive Structure of Emotions*. Cambridge University Press.

54. Panksepp, J. (2000) "Emotions as natural kinds within the mammalian brain". In M. Lewis and J. Haviland-Jones (Eds.), *Handbook of Emotions*: 137-156. NY: Guilford Press.
55. Pirani, B.M., Varga, I. (2005) "The Ethics of Complexity". *Current Sociology*, 53(2): 187-206.
56. Putnam, R. (2000) *Bowling alone. The collapse and revival of American community*. NY: Simon and Schuster.
57. Rolls, E. (2005) *Emotion explained*. Oxford University Press.
58. Ross, J., Staw, B.W. (1993) "Organizational Escalation and Exit: Lessons from Shoreham nuclear plant". *Academy of Management Journal*, 36: 701-732.
59. Sackheim, H., Gur, R., Saucy, M. (1978) "Emotions are expressed more intensely on the left side of the face". *Science*, 202: 434-436.
60. Scaruffi, P.(2003) *Thinking About Thought*. iUniverse.
61. Scherer, K. (1986) "Vocal Affect Expression: A Review and a Model for Future Research". *Psychological Bulletin*, 99: 143-165.
62. Schuller, T. (2000) "Social and Human Capital: The Search for Appropriate Technomethodology". *Policy Studies*, 21(1): 25-35.
63. Sitkin, S., Roth, N. (1993) "Explaining the Limited Effectiveness of Legalistic "Remedies" for Trust/Distrust". *Organization Science*, 4: 367-392.
64. Sloman, A. (1982) "Towards a Grammar of Emotions". *New Universities Quarterly*, 36(3): 230-238.
65. Spencer-Brown G. (1972) *Laws of Form*. NY: Julian Press.
66. Springer S.P., Deutsch G. (1998) *Left Brain, Right Brain: Perspectives from Cognitive Neuroscience*. (5th ed.) NY: W.H. Freeman
67. Steers, R. (1974) "Antecedents and Outcomes of Organizational Commitment". *Administrative Science Quarterly*, 22:46-56.
68. Taylor, A., Rosegrant, T., Meyer, J. (1986) *Communicating* (4th edn.) Englewood Cliffs, NJ: Prentice Hall.
69. Teece D., Pisano G., Schuen A. (1997) "Dynamic Capabilities and Strategy. Management". *Strategic Management Journal*, 18(7): 509-533.
70. Watzlawick P., Beavin J., Jackson D.(1967) *Pragmatics of Human Communication*. NY: Horton.
71. Weick, K. (1995) *Sensemaking in Organizations*. Thousand Oaks, CA: Sage Publications.
72. Williamson, O. (1985) *Economic Institutions of Capitalism*. NY: The Free Press