STRUCTURED COGNITION: HOW ASSUMED ORGANIZATION BORDERS AND COGNITIVE CAPACITY FORM ORGANIZATIONAL BEHAVIOR?

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Despite the abundant study of organizational cognition concept, there remains an uncharted area which depicts; 'How perception of different cognitive capacities might hierarchise in the organization?' Upon this problematic, we decided to apply 'Kohlbergs' Moral Development Theory' to organizational level and found 4 hierarchic cognitive level for organization members, which characterize on different justification modes. We show that the consideration styles and behaviour of organization members evolve while their cognitive capacities broaden and these shifts are consistently patterned. We also show that, by using their justification mode, we can forecast the identified organization members' behavior under specified circumstances. For the prestudy we made interviews with 250 attendants and for the main research we worked with an other 250 (real time workers) of 8 corporate company and also generated an objective scale for verifying these results. Eventually, we obtained two different scales for industrial use.

Index Terms- Organizational Cognition, Kohlberg's Moral Development Theory, Decision Making

I. INTRODUCTION

An organization member is likely to build interactions with the organization (environment) that is identified by his-her own cognitive borders. It can be argued that individuals can be proactive in areas that are defined by their own cognitive borders but can only be reactive outside of this self-defined area. Organizational aspirations and fears could be considered functions of this awareness.

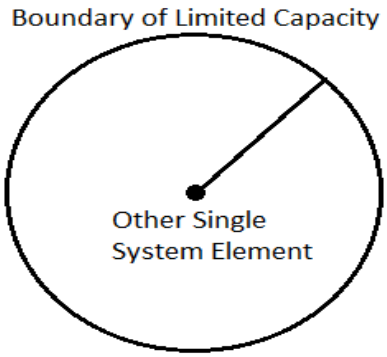


Figure 1. The essential bound of the member and its' limited capacity

However, no person can fully comprehend the entire system to which he or she belongs. Therefore, the cognitive environment of an organization member is defined by the playground that emerges between the boundaries that limited capacity places on the overall complexity (that no person can be fully aware of) and the single system agent (human or a material) that the member have to be aware. The identification of the position of system agents somewhere between these two ends allows us to identify the system from a combination of these positions.

II. THEORIC CONSTRUCTION

Kohlberg's research depicted a structure of moral reasoning and its transformations from childhood to adulthood (Trevino, 1986, p. 604). Each higher stage (a) has new logical features, (b) includes the logical features of lower stages and (c) adresses problems which were unrecognized on unresolved by lower stages [2].

Kohlberg applied 'Heinz Dilemma' to the subjects and evaluated their answers: "In Europe, a woman was near death from cancer. There was one drug the doctors thought might save her. A druggist in the same town had discovered it, but he was charging ten times what the drug cost him to make. The sick women's husband, Heinz, went to everyone he knew to borrow the money, but he could only get together half of what it cost. The druggist refused to sell it cheaper or let Heinz pay later. So Heinz got desperate and broke into the man's store to steal the drug for his wife. Should Heinz have done that? Why or why not?" [1]. Stage 1: The punishment-and-obedience orientation. The physical consequences of action determine it's goodness or badness, regardless of the human meaning or value of these consequences. Avoidance of punishment and unquestioning obeisance to power are valued in their own right, not in terms of respect for an underlying moral order supported by punishment and authority [4]. A typical answer of children from stage 1 is: "Stealing is bad because you get punished as a result." It is also possible for a child to support Heinz action: "Heinz may steal it because he asked for buying first and he is not stealing a big thing, would not punished." [1]. Stage 2: The instrumental-relativist orientation. Right

action is an action which satisfies one's own needs and sometimes the needs of others. Reciprocality is a matter of "you scratch my back and I'll scratch yours," not of faithfulness, gratefulness or justice [4]. An example for second stage children: "Heinz would steal the drug if he wants his wife alive but if he wants to mary with a younger and more beautiful woman, he doesn't have to steal it" [1]. Stage 3: The interpersonal concordance orientation. Good behavior is that which pleases or helps others and is approved by them. There is much conformity to stereotypical images of what is majority or 'natural' behavior [4]. A thirteen years old child named Don is given a typical answer of stage 3 as: "This is definetly pharmacist's fault, not fair, he wants to rip him off and allowing someones to die. I don't think they should put Heinz in jail." [1]. Stage 4: The "law and order" orientation. Right behavior consists of fulfilling one's duty, showing respect to authority and maintaining the social order for its own sake [4]. Most of the respondents says that they understand Heinz goodwill and motivation but the theft should not be forgiven. Because if we ignore the law whenever we think we find a good reason, the result will be chaos [1]. Stage 5: The social-contract, legalistic orientation, generally with utilitarian overtones. Right action tends to be defined in terms of general individual rights and standards which have been critically examined and agreed upon by the whole society. The result is an emphasis upon the 'legal point of view', but with an emphasis upon the possibility of changing law in terms of rational considerations of social utility (rather than freezing it in terms of Stage 4 'law and order') [4]. Stage 6 have not discussed here.

Space, Time and Complexity

Kohlberg [5] states that moral reasoning depends upon advanced logical reasoning and that there is also a parallelism between an individual's logical stage and his/her moral stage [2]. In Kohlbergian studies, so long as the ages and the education levels of the subjects increase, the justification modes of the answers to the dilemmas shift from low-level to high-level moral judgements. Several correlational and cross-sectional studies have examined relationships among the stages of cognitive development, perspective taking, and moral development. Moderate correlations have been found among them [2]. In Kohlberg's longitudinal sample, correlations between an adult's moral maturity score and educational level ranged from .53 to .69. Research results suggest that the continuation of adult development is related to educational experience [7].

Referring to these discussions, we know that there is a kind of relationship between the Kohlbergian stages and human cognitive capacity. To address this point, we apply cognitive capacity to ontological issues: space, time, and complexity notions. Association could be considered a consequence of decomposition, which creates the space, while time and complexity notions are functions of the space.

Consequently, we assumed that when the level of Kohlbergian Organizational Cognition (KOC) increases, the rationales of organization members refer to a larger space, a longer period of time, and higher complexity. We will not present how the survey questions correspond to space, time, and complexity notions due to limited space.

However, it is incorrect to associate moral development with cognitive development literally. According to Trevino [7] the cognitive nature of moral judgment was tested in different ways. For example, in Kohlberg's longitudinal sample, the correlations between adult moral judgment levels and IQ ranged from .37 to .57, which indicated that moral judgment has a cognitive base but should not be correlated with IQ solely.

Theorization of KOC Stages

If cognitive capacity partially defines the level of moral judgement when a subject is confronted with the realities created by Kohlberg's dilemma, then it would be expected that the same cognitive capacity would define the justification modes of the organizational behaviors of members when they are confronted with the realities created by a suitable dilemma.

We will use the notion of "Individual Task Area" for our theoretical construction, and we shall clarify it in order to translate "morality" (for the human sphere) into "meaningfulness" (for the organization member sphere) or "right" and "wrong" into "useful" and "useless." According to Humberto Maturana and Francisco Varela, all systems are "autopoetic"; they refer to themselves and cannot interact with patterns that cannot be identified by their inner templates. Therefore, the interaction of a system with its environment is a reflection of its own organization [6]. With this perspective, Individual Task Area is conceptualized as the smallest conscious island of the organization because this is the first domain that the cognition of an organization member meets at its own boundaries.

The cognitive capacities of "task-stage" members (see in the oral interviews section) reduce their justification universe to simpler system elements that fall under the provisions of the members' willpower without resistance. The force of the willpower of individuals acts as a stable atomic nucleus (this power often originates from organizational regulations) and gathers relatively flabby system elements (all of the meta within the boundaries of the task area). This unequal connection (between the flabby majority and relatively independent single system component) then creates the smallest sub-system that tends to protect its

own borders. This area was used as the basic measurement unit that segmented the cognitive environment to build our theoretical concept. It is thought that Kohlberg's moral stages would then coincide with different compositions of "individual task areas." Expanding space, time period, and increasing complexity are functions of this composition.

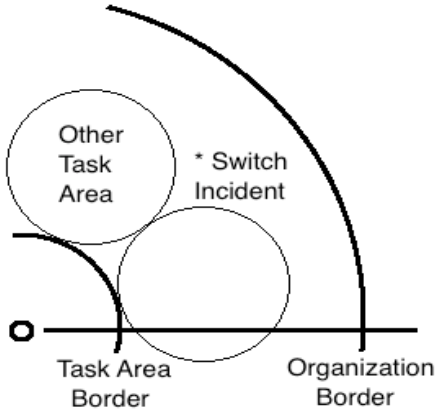


Figure 2. The two collective borders; task area and the organization

Along with the spatial conceptualization above, when questions about the definitions of "right" (moral) and "wrong" are translated in to what is "useful" and "useless" for the organization, the meaning for different stages could be expected and their character could be constructed as follows.

According to the 1st KOC stage members (Punishment Stage) the behaviors that cause punishment are wrong. We cannot apply the terms "useful" or "useless" here because the cognition of "theoretical individual" has not yet been reflected to the organization; the organization's unidirectional bind to the individual stems from the organization's side. The "theoretical individual" is not a decision-making unit of the organization. He does not have a task. His consciousness exists in the moment, and he is much like a puppet. He defines his boundaries through the punishments and penalties for actions he committed unintentionally. He does not react to his environment enthusiastically due to his closed perception. Therefore, we cannot discuss motivation here. Excepting the rare presence of an organization member with serious psychotic disorders, it is not possible to come across such individuals in organizations. According to the 2nd (Task Stage) the things that do not contribute to the output of his tasks are useless, and those that do are useful. The member has gained control of a delineated area in terms of time, space, and complexity. "Meaning" has been achieved when the duties of the task area are fulfilled or maximized. This is why a behavior is classified as useless if it does not contribute to the outcomes of task area. According to the 3rd (Inter-task Concordance) Stage, the things that meet the expectations of the close network of (generally) directly interacted-with "identified task areas" are useful, and those that do not are useless. This stage has also been referred to as the "Efficacy Stage." The employee's domain of interest exceeds the borders of his task area. Other task areas that directly interact with the employee's area in terms of formal processes define this domain. Meaning has been achieved when the outcomes of this inter-task network are fulfilled or maximized. Things that do not meet the mutual expectations of this functional network are assumed to be useless. According to the 4th (System) Stage the things that preserve the continuity and integrity of the system (the whole organization) are useful, and those that do not are useless. The spatial cognition of the member reaches the borders of the organization, and the member is now aware of the remaining activities that fall within these boundaries, the complex relationships they establish, and the feedback loops. In a way not seen in the 3rd stage, these members approach problems in an "understanding why" manner. The concept of the future has become apparent because after one's understanding of the systematic relationships broadens, the realization horizon of these relationships moves further away in time. The continuity of the organization is the focal point of the quest for meaning. The lower parts of the system may be ignored due to the realization of this purpose. The individuals then comply with complex regulations because the harmony of the chaotic environment depends on the predictable behavior of its agents. According to 5th (Meta-System) Stage things that question the system and generate positive suggestions are useful, and those that do not are useless. The existing topology of the system is not irrevocable for meta-system stage members. If it is necessary, these members will question the system and generate positive propositional statements. According to stage 5 individuals, there should be repeated discussion about how the rules could be re-structured for the better. When this discussion is not on the agenda, this anarchical approach toward regulations subjects this evaluation to the 3rd stage. In this respect, Stage 5 members display a redesign attitude.

The Switch Dilemma

The "Switch Dilemma" was designed for common use and allowed us to obtain valid results. The final version is presented below:

"Imagine that you enter the production area of your company at a time that no one is around but you. You witness a machine producing defective products in the production line. If this continues, defective products will lead to high scrap costs, and the machines on the line will presumably be destroyed. The only way to stop the production is to turn off the main switch of the production field. (The machines are dependent on

each other and cannot be shut down one by one. Turning off the switch will not harm you). However, according to the rules, turning off the switch is strictly prohibited, excepting the electrician. Penalties for violators of the prohibition have been applied in the past. In this case, would you turn off the switch? Why or why not?"

In Kohlberg's best-known dilemma, Heinz falls in to a dilemma wherein he must choose between the death of his wife and being a thief. He cannot leave his wife to die but he also should not steal. The same situation is in operation for the person faced with the "switch dilemma". The member who witnesses the defective production cannot leave his company with damaged goods and impairment but he also should not disregard the rules. In both dilemmas, individuals are forced to choose between two undesirable situations. This situation is called "avoidance-avoidance conflict" in psychology literature. In Heinz's dilemma, one of the conditions to be avoided is related to the rules that keeps the system operational.

III. ORAL INTERVIEWS

About the Punishment (Pre-task) Stage: In the pilot and further research, which involved nearly 550 subjects, the number of individuals who based their decision to regarding the switch dilemma on the possibility of punishment was very small. These individuals are believed to be close to the punishment stage, but they were combined with the task stage members for statistical analysis due to their small number. Some of these scarce examples are discussed below.

One subject said the following: "I wouldn't turn it off because the factory has the power to diffuse the damage. But, after I get a penalty, I don't have the opportunity to diffuse my loss."

This subject expressed anxiety about the consequences of a possible penalty to himself. Subject M3 in Table 1 could also be labelled as a member who is close to the punishment stage. This subject used the assumption that electricity would harm him (he had been told that turning the switch off does not cause harm).

Interviewer: "There is no one around." Subject: "Honestly, I wouldn't turn it off because there is electricity. I would get hurt."

Task stage members were interested in the ongoing damaged production, at least superficially; however, they refrained from interfering with the event because it was happening outside of their task area. Their typical answer was, "I don't interfere because it's not my duty." Their excuse relates to the ongoing event, whereas those close to being punishment stage members focused on themselves. This is why they underline the punishment; the penalty is given to the person, not to the task area.

In summation, members suspected to be close to the punishment stage (1) consistently talk about punishment and (2) are selfish. They deal with the most likely outcome for themselves when they decide whether to turn off the switch; they do not deal with the likely consequences of ongoing defective production. We used the term "pre-task" instead of "close punishment" to define these individuals. Subject M30 got a score of 45 out of 85 (max) from the Hierarchic Organizational Cognition Scale (HOCS) and placed among the bottom 9% of the 215 attendants in the main study.

Table 1. Interview Examples

STAGE 2

M3 / INTERVIEW: S: First thing, I try to find the electrician. I: But there is no one around. S: Honestly, I wouldn't turned it off than. Because its electricity, I think I get harmed. INTERPRETATION: Subject is not organization-centered, instead egocentric. He declared that he would get harmed. (This is subjects assumption despite we told it wouldn't happen) He refrains from penalty. He could be labelled as pre-task.

B4 / INTERVIEW: S: I don't turn it off. It's not my duty. I: Could you clarify? S: If it's a banned area, it's naturally forbiden to go and touch the switch. INTERPRETATION: Subject is not configuring the switch problem on benefit-damage opposition. He declares; he is not turning off because it is simply the rule. When questioned more, subject is not touching the possible reasons of the prohibition, he imply that an existance of prohibition is enough to obey.

AL15 / INTERVIEW: S: I wouldn't turn it off. I: Why? S: It's banned. I: Wouldn't you accept the risk of getting punished? S: No I don't. Why would I? I don't, for myself. If someone else's life is at stake it can be. INTERPRETATION: The subject is rejecting to get out of his jurisdiction for selfish reasons.

STAGE 3

E61 / INTERVIEW: S: I inform the electrician ... hm .. the problem will get bigger till he comes .. hm .. I turn the switch off. I: OK. What about the penalty? S: We will endure the penalty, no way other. Instead of the loss of government, I lost my money. (The production firm is a public institution) I: What about, if we assume it is a private company? S: A private company consider the loss in such cases. I think they even give an award to me. INTERPRETATION: The subject is underestimating or not appreciating the value of the rules and the need for electrician. He is enduring the penalty for being usefull.

E30 / INTERVIEW: S: If I am working in a firm I have got responsibilities. Defected production spoil the goods. Not only scrap cost is the problem. If products send to customers like that, it causes bigger problems. I: Briefly, you turn it off. S: Yes I: What you think about penalty? S: They approve my excuse. INTERPRETATION: The subject is defining the possible externalities of ongoing defected production

succesfully but he is not talking about the externalities which makes rules meaningfull.

MU6 / INTERVIEW: S: I turn it off. Because lets consider, so: It's going to demage other places, defected production happens, and the loss will be greater in the future. I turn it off. I: I see, but somebody got a penalty before? S: You do your defence. You endure to the penalty and do your defence. INTERPRETATION: Subject is a typical 3 efficacy member. He is defining the externalities of ongoing defected production succesfully but he is not talking about the externalities which makes rules meaningfull. Also he is reducing the punishment in to its consequences only not to its reasons.

STAGE 4

EY / INTERVIEW: S: I wouldn't turn it off. Because such an event occurred before, this duty should have given to only electrician. I: Could you clarify more? I: There should be a reason. The cost of the defective product should be cheaper than turning off the switch by an un-informed hand. INTERPRETATION: The subject explicitly emphasize that the rules which is constituting the system has supported by past experiences. He pay importance to the system not to the apparent benefit. Afterwards he is discussing the advantages and disadvantages of not-turning or turning off the switch.

ET / INTERVIEW: S: How much will be the scrap cost when the production will be continued and how much will be the cost when the switch turns off. If I can count them, I do that first. Than I inform the authority. I: But you can't reach them. S: Than I compare the costs which will occure during the time till I reach an authority and the costs when I turn off the switch. My decision is also related with the thing that is produced. If it's not a very strategic product, I wouldn't turn it off. INTERPRETATION: The subject perform quite clear and comprehensive cost-benefit analysis. She deserves a strong 4 with her answers. But a meta-system style evaluation has not used. Her answer also comprise a contingency.

E18 / INTERVIEW: S: In this case an authority should be informed. It says; somebody got punished. And if turning off the switch would demaged to other machines (There isn't such information in the story) I would cause a 100 tl (Turkish lira) cost for 50 tl advantage. I: So, you doing this for not disregarding the rules. S: No, not for that. If I would be sure that turning off the switch will solve the problem, than I turn it off. INTERPRETATION: Subject evaluates the results of his possible behaviours by multidirectional perspective. While he states that he would disregard the rule, he also attributes a meaning to the punishment which applied before by assuming that machines would demaged when unauthorized personnel turn the switch off.

About the Task Stage: A significant number of the 550 subjects (with pre-task members accounting for approximately 20%) were labelled as task stage members.

These individuals (1) have acted with task-oriented fear or (2) stayed passive (inert) while approaching circumstances that were not pre-defined, as predicted in the theory. The great majority of them declared that they would not turn off the switch. We thought that, behind the poorly justified, typical answers of the task stage members (who do not indicate punishment as a reason), there would be a fear of causing a greater problem by interfering in an unknown area. This fearful response was also seen in members of the exceptional efficacy stage who had refused to turn off the switch. The important difference between them originates from their evaluation domains. Efficacy stage members evaluate the problem in terms of the consequences of not turning off the switch. They thought about the story. However, task stage members do not perform this kind of cognitive process. They assess any situation on the state of whether it is inside or outside of their known area. They seem to believe that going beyond their known area will lead to bad things. In fact, all members of this stage had this idea. This assumption and the situation of being passive are discussed further and in greater detail in the "Fear and Enthusiasm" section that appears later in this paper.

In an extraordinary example below, the task stage member encoded as M2 declared that he would interfere in this situation, which exceeds his task, but that he was bound to this action rigidly by obligation. Thus, obligation leads to action.

Subject: "I turn it off, in any event... Eventually, somebody has to do it. I have to take on the task because there is nobody there. For example, if this table here broke down and I am here, I am compelled to handle it..."

Members of this stage exhibit the following properties. (1) They are passive in principle and exhibit an avoidant attitude while confronting problems if said problems occur beyond their zone of responsibility. (2) They do not show much interest in issues outside of their jurisdiction. (3) They regard their defined duties as superior to other organizational interests. (4) They mostly act with a sense of fear-based obligation. (5) They do not react much to penalties. Their typical answers can be summarized as the following: (a) I would not turn off the switch because it is not my job (or it is the electrician's duty); (b) I do not touch the switch because the problem is not under the jurisdiction of my assigned position; and (c) if I do not have authority and responsibility for that department, I do not touch the switch.

About the Efficacy Stage: Efficacy stage members (approximately 60% of the subjects) mostly declared an action without fear of going beyond their

jurisdiction, they take initiative. They attempted to be useful to their organization without comprehensive and long-term thinking. Situations that are not pre-defined are approached with an attitude of improvisation and heuristic behavior by members of this stage. Improvisation arises from a lack of appreciation for the rules. This lack of appreciation arises from a lack of cognition regarding the overall complexity of the system as a whole. This is why they prefer taking actions that benefit their close network in favor of a larger one. (1) they did not attribute enough value to the rules, and (2) they could not foresee the possible harmful effects of turning off the switch. We cannot reduce their character to merely their choice to turn off the switch. On the contrary, this behavior is a partial manifestation of their task-exceeding cognition of the dilemma.

An uncommon efficacy stage member who declined to turn off the switch said the following: "No I would not turn it off because it could damage the firm's equipment. I would inform authorized personnel."

This member did not say that it is not his duty; he implied that he would turn it off if he decided that action is more useful. However, he is not a system stage member because he neither attributed the decision not to turn off the switch to rules nor compared the potential results of the two actions.

The typical answers given by members of this stage are as follows. (a) I turn off the switch. We all earn out bread here. (b) I definitely turn off the switch. My reason for being here is to serve my company. (c) I turn it off, whatever the result is. I bear the punishment. (d) It is useful to my company that I turn off the switch. I believe my company will not punish me for this. (e) I do not turn it off. Doing so can lead to a larger loss (exceptional answer). (If one of these conditions are in operation without a comprehensive evaluation and without reference to the regulations, then that member is presumably a system stage member).

About the System Stage: We detected another (approximately 20% of the respondents) group that mostly consisted of highly educated white-collar individuals. They have a tendency towards (1) making a comprehensive cost-benefit analysis and (2) understanding that rules and regulations emerged from accumulating experiences in response to past results. Such employees performed high mental activities and were more conservative in terms of the status quo of their organizations than were efficacy stage members (they predicted more consequences for actions, like 3rd stage members, and also likely reactions to their actions). They seemed to know that they could not fix everything easily by just entering the system, and they were aware of the power balances. They approached situations that were not pre-defined in the light of current directives. Very few of them stated that they would turn off the switch and that their own loss would be a good trade-off for the system's overall benefit. In these rare answers, members implied that they would do it without underestimating the rules; they appreciate the value of the rules and attribute the decision to disregard them to their inadequacy. Actually, an emphasis on inadequacy would typically be related to 5th stage members but these subjects did not attempt to redesign the rules. Understandably, stage 3 members did not refer to the rules, so they were not required to disregard them. They accepted the current regulations as status quo but considered the benefits of disregarding them.

The concept of being useful is often framed by consenting to penalties. Thus, stage 3 members talk about penalties if necessary (second stage talk more) but stage 4 members talk about rules. Penalties are manifestations of the status quo but rules are its origin.

Other characteristics of system stage members could be summarized as follows. (1) The perceived need or wish for the continued success of the system as a whole actuates them. (2) As stated in the theoretical section, members approach problems in an "understanding why" manner. (3) Members are motivated by the prosperity of the system. (4) The interests of the system are preferred to the interests of sub-systems. Their typical answers were as follows. (a) Which action costs the most? I evaluate it, and then act (with a comprehensive cost-benefit analysis). (b) I cannot foresee the cost when I turn off the switch. That is why I trust the guidance of the regulations. (c) I would not turn it off. If there is such a rule, then there must be a good reason for it.

About the Meta-System Stage (Subject 5): 350 days after the start of the study and after having interviewed approximately 500 people, we encountered a person who met the requirements of the meta-system stage. We labelled him as "subject 5".

Using statistical analysis, this subject was evaluated with the system stage members. He is a mechanical engineer in his thirties and working as the production manager of a medium sized production enterprise. His interview is shared below.

Subject 5 (S): "I turn it off." Interviewer (I): "Why? S: "If I don't have any other options, I try to stop it... hmm... but you say I can't do that [due to the rule]... but the machine should have an emergency stop." I: "This switch is something like an emergency stop. However, the rule says, 'You cannot push the emergency stop." S: "Then that means the rules are inadequate. While defected production goes on, having such a rule without considering this option may be a shortcoming." I: "Then, what do you think about the penalty? Wouldn't you hesitate to turn it off?" S: "If there is a switch there, and it's forbidden for unauthorized personnel to turn it off, then this switch should be protected by a lock. People have different intelligence. If there is such a rule, the

legislator should design the environment so unauthorized personnel couldn't reach the switch. By doing this, you would obstruct people from reaching it, and you also prevent them from getting a penalty."
Subject 5 implicitly states that the present rule in the story does not satisfy the requirements of the complex and unforeseeable realities of an organizational environment. Then he asked how the rules and processes could be redesigned for the better, and he also answer his own query. According to him, rules should be standardized according to the avoidance of human initiative. By doing this, subject 5 introduces a positive thesis that redesigns the organizational structure. He transcends the options offered by the switch dilemma, showing that the switch should be inaccessible. None of the white-collar individuals among the 550 subjects exhibited a redesign approach to the switch dilemma, except him.

Developing the Objective Scale

Primarily, this study abandoned the identification of Kohlbergian stages by using an objective scale. Our scale was not developed to assign individuals to Kohlbergian stages. It was developed to confirm the hierarchical positions of segments that were determined by interviews to be hierarchically positioned as predicted in the KOC approach. The nested character of hierarchical stages are the most important reason of unsuccessful objective scale attempts for Kohlberg's Theory. In this paper we will not discuss the development process of our objective scale Hierarchic Organizational Cognition Scale (HOCS) due to the limited space.

CONCLUSION

We showed how a cognitive pattern would project on different aspects of human kinesis, such as organizational formations. This cognitive pattern reveals a kind of hierarchy between organization members that is grounded in their environmental perception capacity as well as other features. It seems that applying strong supervision is meaningless and would be detrimental to 4th stage members, would only be meaningful in unexpected situations for 3rd stage members, and would be continually meaningful for task stage members. KOC stages may also represent the dispositional basis of the members' achievements at work under specific organizational circumstances.
As Kaplan and Henderson [3] stated: "The effects of an incentive regime cannot be cleanly separated from cognition. Rather, cognition and incentives evolve simultaneously in a complex, reciprocal process." We believe that the cognitive area needed by 3rd and 4th members to feel responsible will separate them via affecting their degree of motivation.

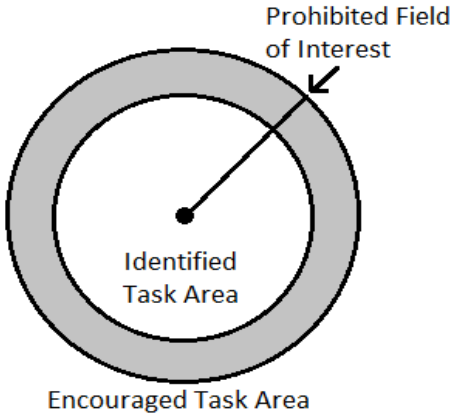


Figure 3. The identified, encouraged an prohibited field of interest.

In detail, we argued that it would overcome organizational inertia if managers were to identify multiple-stage jurisdictions for their employees, under the assumption that the cognitive borders of each employee (except task stage members) exceeds the cognitive necessities of his or her "identified task area." On the other hand, we could suggest that exceeding cognitive capacity generally cannot fulfill the needs of the environment due to the lack of related experiences and the gap between perceiving something and understanding it deeply. Our findings promoted this assumption.

Some employees have an innate tendency to interfere in achievable but non-identified work, and some do not. The ranking of each employee according to his or her cognitive capacities regardless of their hierarchic levels in the organization and assigning them "encouraged task exceeding levels" would institutionalize the usage of organizational potential. Under this concept, the "identified task area" expresses the formal tasks that are assigned to each employee, "encouraged task area" expresses the encouraged and allowed jurisdiction of each employee that exceeds his or her distinctly identified tasks, and "prohibited field of interest" expresses the area where an entrepreneurial employee would interfere naturally but is repressed formally. Actually, with this conceptualization we propose to institutionalize the natural and necessary overflows in organizations slightly.

Any identification means the reduction of absolute reality. In response to this, managers would lead their organization members into controlled chaos to benefit from their enthusiasm. By controlling them, they could partially prevent the system from the detriments of overflowing actions.

Forecasting The Organizational Behavior

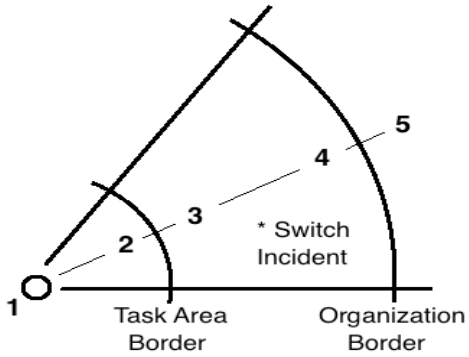


Figure 4. Two Cognitive Phase: Convergent and Divergent Cognition

According to our findings, while organization members' cognition develops, the organization model in his mind begin to interact with the borders which has created by collective balance in the organization. In this point two types of cognition emerges:

1- Convergent (highly structured) cognition: In this phase, the cognition of the organization member is getting close to the task area or the borders of the whole organization. Its' character is status quoist.

2- Divergent (less structured) Cognition: In this phase, the cognition of the organization member is just moving away from the last encountered organizational border. Its' character is redesignative and opponent.

When the cognition of organization member (3rd stage) exceed the first border (task area), he begin to fictionalize the perceived irregularities as a new cognitive model. This new model is elastic because the number of variables and their reciprocal dependency is low. This model does not correspond with the corporational system which brings together the identified task areas. This new model identifies the organizational system with a new view and definitely inadequate in terms of its corporational sophistication. While the organizational cognition of the member improves, it gets close to the borders of the organization or the system (2nd or 4th stage) and imposed complexity cause an increasing cognitive burden. This situation makes it both more possible and more attractive to learn the current fiction for the individual, instead of building an original fiction for the entire organization. For this reason, the mental model is solid.

- Convergent Cognition, has developed a comprehensive insight into the system to which it belongs, including an unnatural focus and details.
- Divergent Cognition, does not have a comprehensive, structured insight into the system that he included. Its' comprehension is flexible and is a missing example of the formal model.

It is important to understand that the absolute character of the two type of cognition is not status quoist or re designative. According to our pilot study the 52 % of task stage members were entrepreneur. We can't assume the inherent character of task and system members as status quoist. According to these findings, when we know the KOC level and the position of the organizational event facing; we can forecast the propable behavior of an organization member.

Table 2: Possible Behaviors Under Circumstances

The Cognitive Location of the Incident	KOC LEVEL 2	3	4	5
Within the Task Area	Status Quoist Manner	Re-designative Manner	Re-designative Manner	Re-designative Manner
Between the Task Area and System Border	Inert	Re-designative Manner (Inadequate Result)	Status Quoist Manner	Re-designative Manner
Out of the System Border	Inert	Inert	Inert	Re-designative Manner (Inadequate Result)

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