

Parallel Learning, Coexistence Of Multiple Structures To Act According To The Circumstances In The Same Situation

Omar Iván Gavotto Nogales¹

¹Universidad de Sonora (México)

Abstract : *The main purpose of this essay is to argue about the coexistence of multiple structures to act in the same situation in similar circumstances. The reflections are based and exemplify to give support to what would be a new way of analyzing learning from an antagonistic parallelism and configuration of various cognitive structures that are selected unconsciously to act in the same situation, but under different circumstances.*

Keywords: *conscious, unconscious, learning, memory, structure.*

I. Introduction

For centuries, the study of the mind has been a priority task for scientists, however, all existing knowledge and technology in our time is not enough to meet its enigmas, its importance is known, its structure, its anatomy and the electrochemical reaction to stimuli, but has not been found to decipher the general patterns of operation. There are many epistemological theories about how humans learn and their relationship with knowledge, with the reality that records the mind and the world external; to the point that has been made radically thoughts, between the position of the impossibility of capturing reality from its objectivity, since the human being reconstructed that reality in mind and interprets it according to their perception of the world, understanding that reality is captured by the senses, even at the expense of our senses are imperfect and do not record all the elements of the environment; other perspectives, establish that the only existence is built by humans, arguing that if an item is not in the mind, there is no record of its existence, without consciousness no existence

Given this duality, we must admit that there are more than two, objective and subjective, external and internal, the other staff and parallel dimensions. So, something very similar happens in the mind, there is no absolute idea about things and objects we learn coexist schemes, structures and elements of thought that tries to make sense and response from complementary approaches or antagonistic.

This article's main objective is to argue about the coexistence of multiple structures to act in the same situation in similar circumstances. With the aim to answer the following questions:

Why a person learns the answer or social or scientifically correct behavior and subsequent performance tends to be unstable or inconsistent?

Why a person can perform a task fulfilling all the criteria, but sometimes their performance is retrograde or unconcerned efficiency in the task?

Why a person says that going to do something and done something else?

II. Development

All people constantly learn, but not all people learn the "correct" or socially accepted concepts. It can be said that the life of a human being, recorded countless learning from birth until death occurs, even in the last exhalation can learn something new. However, not everything we learn is regarded as correct, or valid scientific knowledge, based on a disciplinary field, since there are also learning naive, superstitious or do not match a valid knowledge from the scientific field. People must learn to live in a society where required to offer a response according to the expectations that communities or authorities in different contexts, yet these responses are opposite or contradictory. It should be noted that many lessons have been inculcated by the authority which established such knowledge, they imposed a way of thinking, believing and acting on this framework of thought, but nevertheless, mind built other cognitive schemata on the same reality.

In schools and universities students usually they learn to repeat considered correct answers, creating alternative structures or parallel to non - parallel structures built scientific thought. So it is important to note that the structure of thought on a particular object is not replaced by another structure, the development of thinking is presented in terms of adaptation that manages the person to scenarios and situations that demand act logically to such circumstances.

Although the answers are manifested through a conscious state, where the person is alert, awake, awake and focused, not necessarily the executed answers emerged from the reflection or the result of a previous analysis. The long - term memory can store incommensurate responses that are stored in the subconscious consciously are recovered or inadvertently, that is, inadvertently, people do involuntary acts, many times

become irrational behaviors that do not match with social expectations. Although not all the time is involuntary, in many cases people feign innocence, to obtain some advantage or consideration by acting inappropriately.

Observations in school settings, have identified patterns of responses can be related to the same situation or case so evoked responses, not all the time adhere to the standards or standards agreed by society. Studies by the author of this article confirm that people do not easily change their thinking about an object, what they do is provide an answer they consider valid to certain environmental conditions, response that will have a greater chance of receiving feedback, reward or positive reinforcement, in any case social approval. When the booster or agent is not perceived when there is someone to judge our behavior, we tend to go back in time, leaving aside some already acquired learning to perform behaviors that we would not do in front of another person, for example, eat without washing hands, eating unwashed food that has fallen on the floor, sucking fingers when eating, chewing with his mouth open, do not use fork to eat or napkin, among other savagery; This is just one example that is not intended to generalize this behavior to all people.

Citing the popular saying "A lesson well learned is never forgotten", invites to reflect that the uncivilized behaviors we have learned, if they really are learned, they will be stored in the brain, latent in our unconscious.

In language learning we can find a clear example, when we learn another language or several languages other than the mother, build structures and patterns of parallel response to the same situation, never forget the mother tongue, but stores it in the memory to use depending on the circumstances. Cognitive structures are dormant and ready to be used.

Sadler and Sonnert (2016) [1] state that learning is enhanced when the teacher understands the misconceptions of his students, therefore, faults in reasoning, become the starting point for learning. However, as opposed to Sadler and Sonnert (2016) [1] does not replace the teacher misconceptions by correct; since it cannot replace a mental structure on the other, people sometimes act irrational, illogical or nonsensical manner, often you get the right answer, not knowing what was the logic or reasoning which supports only give the answer in this case have built a structure of the correct answer, but have failed to understand why it is correct; social pressure exerts a force that reduces free will, making the person act heteronomous way to get the acceptance of the group, when it receives this pressure or force, is very likely to act according to their initial beliefs, this is very similar a learned behavior in the presence of a reinforcer, the strengthening disappear, be extinguished caused the behavior. In many cases people act following a pattern of right answer, but at times return to the elemental or "wrong" pattern.

Sadler and Sonnert (2016) [1] state that it is easier to teach science from identifying student misconceptions. Although only know misconceptions may be insufficient to achieve understanding, we should not ignore the influence of linking new knowledge with the world known by the student, to develop what constructivists point as meaningful learning.

The parallel learning a new structure is not exclusively related to a method of teaching and learning, since it is not limited to a pedagogical or andragogical reflection, it does not address or questions on how was the teaching, nor how it was that was obtained cognitive, the object of study in the parallel learning are knowledge structures themselves, where a person can give various seemingly antagonistic responses in their logic thinking to specific situations or circumstances, such as adaptive mechanism, for example, the lexicon uses a person may be adjusted according to your partners, the degree of expression of vulgar way a specific group in the community or with the most sophisticated argot in an academic context.

The SOLO taxonomy (Structure of the Observed Learning Outcome) is a contribution of Biggs and Collis (1982) [2] which is very useful for understanding the structure of learning, it seeks to classify the level of complexity of the structure of knowledge achieved or achieved by the student. The taxonomy is nested as follows: prestructural, unistructural, multistructural, relational and extended or transfer abstraction.

It is also necessary to refer to the stages of cognitive development Piaget (1969) [3]: sensorimotor, preoperational, concrete operations and formal operations, which establish a qualitative change in the way we respond to various situations in different stages of human development, yet in each of these stages structures parallel learning occur in the transition from one stage to another, certain structures of thought change, but is not a complete evolutionary development, there is a transformation of all learning structures but beliefs, customs, hobbies or vices prevail, reproduce and coexist with the new knowledge and ways of thinking reality.

It is necessary to mention that Piaget, explain the learning process, based on cognitivism and scientific knowledge of his time, although figuratively divided the acquisition of learning in three main stages: assimilation, accommodation, and equilibration. It is essential to mention that not all knowledge becomes learning to go through these three stages, since the mind is not only shaped by structures in constant growth and accumulation of new items. As he mentioned above humans never stop learning, so it is ready to start new cognitive structures, enrich other or consolidate existing ones.

Biggs (2005) [4] states that a good education should get most students use higher cognitive processes level. Although this does not mean they can also memorize, recognize, relate, apply, create, reflect and theorize, but not necessarily appear in this order, you can theorize new elements are stored simultaneously. What it does is essential that the learning experience is not limited to reproductive level, but access to the production and creation of new explanations of reality. In particular should be encouraged deep learning, and not dwell on the superficial level, however, a person not only reflects a deep learning in their mindsets, since it also has surface mental structures, this means having simple mindsets, uncomplexed or incipient.

Cognitive research approach establishes that human beings registered and acquire more information than they can experience through their conscious thoughts.

Parallel learning is easily identifiable in everyday life, for example, the duality of thought, it is part of human learning. Starting from the empiricist principle that everything that is in the mind has acquired, seized, people have learned to respond in different ways to the same situation, however, stand out mainly two alternatives, which are contradictory from an optimistic perspective or pessimistic thinking. People have free will to respond to a situation assuming a favorable or unfavorable attitude toward the same event, for example, if you have a stomach ache may think that you will soon pass if you follow the recommendations and treatment doctor, but also the "negative" dual thinking, can make you believe that your problem is more serious and could worsen and die, are two thoughts that can firmly believe in the same situation of pain. In this example, the person learned two responses, but their defense mechanism triggered which best suits their beliefs, previous thoughts and circumstances.

From a deeper perspective, people have inconsistency between expressing belief and their own arguments about what he believes; the antagonistic duality, reflects a parallel that prevents cross the two situations, for example, religious faith coexists alongside scientific knowledge which relate to a particular field of knowledge, but their arguments are antagonistic. Superstitious behavior of many religious or scientific is also housed in the mind, but not confronting dialectically, but co - existing in isolation and parallel, accepted as part of the body of beliefs and knowledge.

Moreover, if people pointed to the same problem confirm a position or argument and within minutes, completely change its position before the same problem occurs are no longer in accordance with previously claimed. One can appreciate that cognitive schema is subordinate to antagonistic, however, other underlying latent, for when evoked.

This helps explain why we act in a way, when I really wanted to act differently, or why we procrastinate important or urgent actions by those that are more pleasant or comfortable. By having a parallel learning, we chose generally by the cognitive structure that will have less impact or short - term implications in our lives.

With the above, the coexistence of mental structures on the same object of knowledge is argued, although the antagonistic mental structure is simple and counted with a complex structure of the same object of knowledge, the person can distinguish between the two, using it at their convenience.

When a cognitive structure is selected goes to the conscious level and placed in a superior to other structures, which are fogged or obscured not being taken into account for consecutive actions, but changing the endogenous and exogenous conditions occur hierarchical position re-equilibration one circumstances favoring the choice of other mental structure.

Act logically, is a popular expression, whose connotation refers to behavior that is consistent with a structure of thought previously expressed, on the contrary, act beyond all logic is the dissociation that occurs between what is said to be do and what is actually done. For example, a doctor who smokes, is an example of inconsistency between what he knows and what he does; a nutritionist who is not feeding properly; a professor of physical education who does not exercise; or an ecologist who throw garbage on the street.

Many reasons why people are not congruent may exist, but all underlies the existence of primary cognitive structures or surface, manifesting itself spontaneously and subordinating to the complex and sophisticated structures. In the case of illogical behavior, it is clear that people learned or have the knowledge to act, but not reflected in their behavior consistently.

Empirical studies have shown that people who make decisions analytically and consciously respond correctly to simple situations, ie with fewer criteria to consider, that those who respond unconsciously, however, in complex situations, those involve a greater number of criteria to be considered are the unconscious responses are most successful (Dijksterhuis, Bos, Nordgren and Van Baaren, 2005) [5]. This shows how unconsciously the human brain in complex situations is activated by selecting an answer, that according to the perspective analyzed in this article, the person selected unconscious response way, but often this response tends to be contrary the criteria set exogenously, mastery learning exist coexisting or parallel, which in many cases tends to be an antagonistic response to scientific criteria or morally established by the company as correct.

Strictly considering all responses come from our unconscious, that when we grieve or have an idea in mind, this was chosen by our unconscious and not the conscious. Currently, neuroscientists confirm that the

conscious can only address a very limited part of the stimuli we receive from the outside, to pay attention to an object, discriminate other stimuli; Instead, the unconscious is recording everything that capture the senses, since it does unintentionally or automatically.

III. Conclusion

The conclusion is that people store in memory different response patterns that use according to their needs or problems they face. Not all people are congruent between what they do and say they do, and it is very difficult for these people to explain why their behavior is not logical for this reason, this article answers to such uncertainty.

References

- [1] P. Sadler, and G. Sonnert, Understanding Misconceptions. American Educator, 2016, 26-32. Recovered from http://www.aft.org/sites/default/files/ae_spring2016sadler-and-sonnert.pdf
- [2] J. Biggs, and K. Collis. Evaluating the Quality of Learning: the SOLO taxonomy (New York: Academic Press, 1982).
- [3] J. Piaget, and B. Inhelder. Child psychology. (Madrid: Editorial Morata, 1969).
- [4] J. Biggs. Quality of university learning. (Madrid: Narcea, 2005).
- [5] A. Dijksterhuis, M., Bos, L. Nordgren, and R. Van Baaren. On Making the Right Choice: The Deliberation-Without-Attention Effect. Science, 311 (5763), 2005, 1005-1007, DOI: 10.1126/science.1121629. Recovered from <http://science.sciencemag.org/content/311/5763/1005.full>