BEHAVIORAL LEARNING THEORIES AND A REVIEW FOR POLICE BASIC TRAINING
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Abstract

Education is an ongoing process and realized by the occurrence of current learning. The aim of formal education is to help students gain knowledge and material-moral values requested by the community in their current and future lives. The main objective of the police training of police cadets in police training institutions is to help police officers gain specific psychological, physiological and academic abilities that they will need while performing their duties.

In the literature, it appears that there are different theories of learning. According to the cognitive learning theory based on processing information, learning occurs by processing external stimulants within mental and internal processes. Affective learning is about being interested in the thing to be learned so it is about internal desire. According to behaviorists, learning is continuous changes in relatively permanent behaviors that are seen after experiences and practices.

The main discussion of the study is based on "the feasibility of learning theories in police training in the top title of the behavioral learning theory". To test the main question of the discussion, learning theories in literature are examined and, the principles of consolidation, stimulant, performance, repetition and learning by doing that behaviorists claim to be active in the individual's learning process are attempted to be linked with the police basic training. Although well-known learning theories are mentioned in the study, the association of police basic training and learning theories is limited to behavioral learning theories.

The researcher has not come across with a study associating police basic training with learning theories in the security literature. In this sense, it is possible to mention the originality of the study and its potency of contribution to the field.

Keywords: Police Basic Training, Police Cadet, Education, Behavioral Learning Theory.

JEL Classification: H56, I21, O15.

INTRODUCTION

People consciously or unconsciously learn a lot depending on social, cultural, and economic conditions of the society they live in from birth until death. Uncontrolled and random learning that affects the life and behaviors of an individual occurs sometimes intentionally sometimes unintentionally and sometimes unconsciously. Such non-planned, unplanned and unscheduled learning causing desirable or undesirable changes in behavior is termed informal learning. (Çakır and Karataş, 2012: 22-23).

An overweight, non-sporting and unhealthy person or even a person missing some body parts can deservedly be a teacher, doctor, judge, engineer or etc. if she or he has the necessary academic qualifications. However, in order to be a policeman, a person must have all the physiological, psychological and academic qualifications such as fully healthy, being in a certain range of body mass index, sporting and a strong psychology. So that police cadets presumed to have those qualifications in the police training schools can gain the skills required by the police like permanent and desired behavioral changes for the job, learning must be planned and controlled, formal training must be given by the experts (İnankul, 2015). Actually, policing is a profession full of challenges, dealing with people involved in dirty work and having working conditions more severe than those of other professions. Therefore, a person performing such a challenging profession is expected to be patient, brave, tolerant, knowledgeable, strong and fully healthy.

The candidates accepted in the police training institutions are fully healthy young individuals experiencing a tough selection process, having physical competency and clean hands required by policing, proving academically superiority of their peers and so on. It is possible to fully teach the abilities of policing to such prepared candidates in the police training institutions.

In accordance with the post-modern based total quality management manner (Dogan, 2015a), well trained and qualified police officers who will guarantee human rights and freedoms are needed so that new public management and ethics can be institutionalized generally in Turkish public management (Dogan, 2015b) and particularly in the Turkish National Police as well as the members can possess the universal principles such as accountability, openness and honesty. Among the most important goals of the Turkish National Police (TNP) as well as the police organizations of the world is to train police officers possessing knowledge, skills and abilities to fight against today's and tomorrow's security threats. This goal can be achieved through implementing the training programs on the police cadets and helping them fully gain and

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learn the skills required by the job. Besides, empirical studies on police officers of different countries concluded that police officers more trained than their colleagues were more successful in their jobs and happier in their personal lives (Balcı, 2011).

The purpose of the police training is to make the cadets, who are successful in academic, physical and psychological tests in the recruitment process, gain the skills they will need while performing the job (Bakioğlu and Özcan, 2003: 21).

So that police cadets can graduate in accordance with the qualifications of policing, scientists researching in security literature dwell upon in which training system police basic training should be given, how the training process is managed, how to increase the intervention quality of a police officer in potential problems in the field, in short; which modern education methods can provide police cadets with the desired behavioral changes for the realities of the policing practice.

In this study, some learning theories -especially under the roof of behavioral learning theory- are associated with police basic training. It is discussed that which principles of which learning theories are active in police basic training in order to improve the learning quality of the police officers who will win the trust of people, intervene in the right place in the right way and offer security service in accordance with law. In addition, these learning principles are attempted to be implemented in policing.

The main purpose of this study is to discuss the place and applicability of the concepts forming the components of the teaching principles of the learning methods such as performance, stimulus, conditioning, strengthening, repetition, awarding and learning by doing in the police basic training. It is possible to state that this study is the first type in the literature of Turkish police sciences and has the potential to contribute to the field.

1. CONCEPTUAL FRAMEWORK

1.1. Learning

The most familiar definition of learning is that it is a process of gaining new ideas, knowledge, skills and behavior that are not already exist and perceived via sensory organs or instiction by people. It is the process of learning that continues from birth to death and distinguishes people from other creatures (Barutçugil, 2002: 25).

Humans interpret, evaluate and internalize the stimuli, they intuitively and intellectually accept, by mentally filtering and processing. The brain which is the management centre of all our sensory organs can hold thousands of data in memory throughout the human life, can store eighty six billion of new data daily, doesn't age contrary to common belief and is our least known organ has a special place in learning. Indeed, the brain is the main command centre that makes a bridge between thoughts and behaviors, and comprehends what we learn (Barutçugil, 2002: 26).

Learning starting with the birth of man and considered as a neurophysiological process and circle occurs through perception, idea generation and the action of hand, eye and nervous systems. Beginning to walk, talking, eating and drinking, swimming, riding a bike and etc. are each a product of learning (Karaağaçlı, 2005: 15-17).

Learning that appears as a result of an experience and is a permanent change of behavior occurs not only in class but also in every field of life and is not expected to be always conscious (Fer, 2011: XII).

Karaağaçlı (2012: 17-18) has listed the characteristics of learning as follows:

• It is a behavior change. This change can be good or unwanted.
• The change in behavior is relatively permanent.
• It is a series of events.
• Concepts and perceptions increase.
• Attitude change occurs. Some of them are acting in a controlled way, taking responsibility, being sensitive and etc.
• The change in behavior is not visible only through growth.
• Applications can be seen.

Some factors affecting learning are as follows (Karaağaçlı, 2012: 18):

• Preparation,
• Motivation,
• Physiological and psychological factors.

1.2. Learning, Training and Education Relations

Education is the process of changing or forming a desired behavior in general meaning. According to the definition of learning, the desired behavior must occur through the person's own life. The change of behavior through the individual's own life is learning. In other words, education is realized through the formation of effective learning. So we can see education as a process of creating learning in a desirable way. It includes the creation of expected or desired behaviors in both formal and informal education. Cheating in

class, being quarrelsome, dirty talk and etc. must be seen as erroneous by-products of the undesired education and minimizing the number of these erroneous by-products possible to appear in the education process must be among the aims of education. Because teaching is the activities of providing learning, education can be achieved via teaching that provides effective learning (Senemoğlu, 2004: 86).

2. LEARNING THEORIES

Theory is a concept with a very wide range of uses ranging from science to philosophy. It is used for a situation in daily conversation or an idea to explain a behavior, information independent from practice and all the thoughts about a problem (Turkish Language Society, 1988: 929; Wikipedia). A theory is an explanation and description of a scientist about an event or a case. Theories are expected to be consistent and reasonable with the earlier studies. The theories that can be tested with experiments and produces reasonable results find their places in the science world.

"Learning Theory: a model or a system that includes various generalizations and principles created to explain HOW humans learn via extensive research results" (Erdem and Akkoyunlu, 12.01.2016) Five among these models are the most accepted. These consist of the following (Wilson and Peterson, 2006):

1) Cognitive,
2) Social Cognitive,
3) Affective,
4) Neurophysiological,
5) Learning theories based on behaviorism.

2.1. Cognitive Learning Theory

In the cognitive learning theory based on processing information, learning occurs by mentally and internally processing the external stimulus. According to the cognitive theories, learning is a mental process that cannot be observed directly. According to Piaget and Bruner the psychologists of Gestalt School, learning is the increase and improvement of the capacity and ability of behaving. In other words, learning is to assign a meaning to the happenings around an individual according to the cognitive learning theory. Information processing theory is one of the most important theories of cognitive approach and according to this theory, information is not passively acquired by the person but the person get the information and process it, i.e.; he or she assign a meaning to it. (Ozden, 2003: 204-205; Scott, 2009: 259-260). According to this theory, the information that is acquired through sense organs is processed in the mind like a computer processing data. According to this learning theory, attention of the student, keeping in mind, psychological and emotional state, creating behavior and motivation is very important. (Güneş, 2007; Figen and Mete, 2009: 60-61).

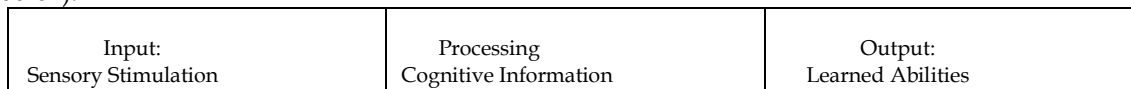| Input: Sensory Stimulation	Processing Cognitive Information	Output: Learned Abilities

Figure 1: The Computer Metaphor that Explains Learning According to the Cognitive Theory

"Sensory memory is the memory where the information perceived through the senses from the external environment is kept for a very short time. Any information perceived from the external environment is not processed in the memory, instead; an individual's selective attention comes into play and only conspicuous or important information for a particular purpose is conveyed from the sensory memory to the short-term memory" (Deryakulu, 2001: 5).
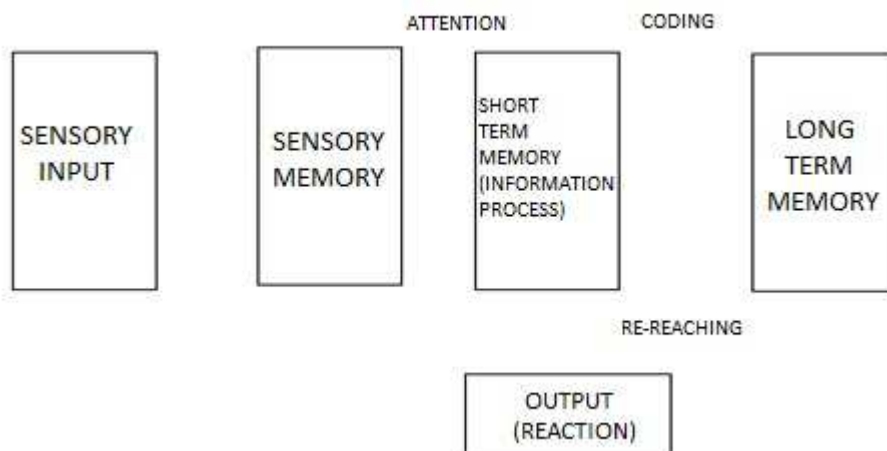

Figure 2: A Model that Reflects the Process of Information in the Memory According to the Cognitive Theory

2.2. Social-Cognitive Learning Theory

According to Bandura who is one of the proponents of this theory, basic concepts in learning are observation, imitation and taking model. This view that dates back to Aristotle and Plato is based on an

individual's own behaviors by observing behaviors of others. This theory was researched experimentally by Thorndike, Miller, Dollard and Watson. The most important researcher of this theory is undoubtedly Bandura and there are four basic processes of learning according to him. These consist of the following (Aydin, 2000: 212-216):

- Attention process
- Retention
- Realizing process of Behavior
- Motivation process

2.3. Emotional Learning Theory

Emotional theory is about the results of learning rather than its nature. This theory features healthy self and moral development. While cognitive theories talk about mental results of mental learning, emotional theories talk about emotional results of learning such as the self and moral development (Ozden, 2003: 28).

"Learning that has emotional aspects such as sharing national values, valuing historical monuments, adopting common values of culture and developing positive attitude towards the school and lessons is defined as emotional learning. It is stated that emotions or emotional learning can occur through classical conditioning, operant conditioning and observation"(Gömleksiz and Kan, 2012: 1168). There is an important link between cognition and perception, and people are more open to learning what they love, what they are curious about or what they are interested in. In other words, emotional learning is so much about being interested in and feeling eager to what to learn.

Although contemporary works in this field were started by William James and Charles Darwin in the end of the past century, there have not been any significant studies since then.

2.4. Neurophysiological Learning Theory

"It is an approach that explains learning according the synapses between the cells in the human brain and examines the process of learning basing on the brain. According to this approach, the effect and power of synapses formed between neurons that happens while learning about any subject is important. According to this theory, there are some changes in the brain when learning occurs (Keleş and Çepni, 2006; Scott, 2009: 264).

2.5. Behavioral Learning Theories

"*Behavioral theories acknowledge that learning occurs by establishing a link between stimuli and behavior, and behavior change occurs through strengthening*" (Özden, 2003: 21). According to behaviorists, environment determines and controls our behaviors. If there is the appropriate environment or it is created, desired behaviors can be seen in the individuals. According to the proponents of behavioral learning theories, learning of humans and animals are alike. That is why the word of "organism" is seen in the explanations of the behaviorists. Organism includes both the humans and animal (Sözbilir, 2007: 3-4).

According to behaviorists, learning theory is concerned with behavioral appearance. Moreover, learning is relatively permanent behaviors that are seen after experiences and practices, and it is also an internal event. Besides, it does not count that learning occurs if it is not clearly seen in the behaviors. Behaviorists are not interested in whether the individuals can stand against the conditioned developments or whether they can change the situation (Huitt and Hummel, 1999: 1-3; 9).

Behavioral theories acknowledge that learning develops by establishing a link between stimulus and behavior, and behavior change occurs via strengthening. Learning is a relationship and process between stimulus and reaction; in other words, an individual that behaves for a particular situation shows the same behavior when he or she encounters a similar situation (Bacanlı, 2005).

Today, the history of behavioral learning theory dates back to Aristotle although it is known that the proponents of the theory are Pavlov, Watson, Thorndike and Skinner. In addition, important researches on behavioral theories were made by Aristotle's followers such as Hobbs (1650), Hume (1740), Brown (1820), Bain (1855) and Ebbinghause (1885) (Mergel, 1998: 3).

Bacanlı (2005: 162) lines up the basic assumptions of the behavioral approach as follows:

- The learning of people and other creatures are alike. A human learns like how a dog learns.
- Based on this first rule that there is no difference between human and animal learning, behaviorists attempted to explain the learning of the human.
- Learning can be examined by focusing on measurable and observable events just like physical issues.
- As in John Locke's understanding of the human mind, the human mind is a blank sheet in the birth.
- Most of the behaviorists believe that human's properties such as feelings, thoughts and motives cannot be observed not measured so they cannot be scientifically researched. According to the proponents of the theory, organism is a black box. What enters the box (stimulus) and what comes out of the box (reaction)

can be measured and observed. Entering the box (stimulus) and out of the box (response) can be measured and observed. However, what is inside the box is not understandable.

• According to the behaviorists, the rules of learning are based on the links between stimulus and reaction. Therefore, the behaviorists are also called S-R theorists.

• Behaviorists use "conditioning" term rather than "learning". Accordingly, organism is conditioned to react in a certain way by environmental stimuli in learning. Therefore, the learning takes place out of the control of organism.

• Learning can be said to occur only when a change in the observed behavior of organism is seen. If there is no change in behavior, it means learning did not occur.

• Learning can be expressed and explained in a concise manner. Every learning can be explained by simple rules whether it is simple or complex.

• Behavioral approach starts with Ivan Pavlov in Russia and Edward Thorndike in the U.S.A. Among the other important behaviorists are Watson, Guthrie, Hulli and Skinner. Pavlov revealed the classical conditioning and Thorndike revealed some laws and rules such as effect and exercise laws. In the behavioral approach, learning is divided into two basic parts as classical and operant conditioning (Bacanlı, 2005: 163).

2.5.1 Classical Conditioning

Through classical conditioning, humans and animals learn to react to different stimuli the same way as they react to the stimuli naturally. Particularly, the physiological and emotional reactions (salivation, blink, growth and shrinkage of pupillary against light, excitability) occur through the classical conditioning. Although the realization of learning through classical conditioning is difficult in a classroom (Fidan, 2012: 36), Senemoğlu (2004: 104) puts forward that this learning theory can be applied to the classrooms and it can give effective results in helping students gain affective and emotional characteristics.

The representative of classical conditioning is the Russian scientist Ivan Pavlov who is actually a physiologist. Pavlov who was born in Russia in 1849 won the Nobel Prize for his work in the field of digestive physiology. During the study about the saliva and gastric secretions of the dogs, Pavlov found out that the dog secreted the same amount of saliva when it heard the footsteps of the researcher without seeing the meat. After this incident, Pavlov scientifically and regularly examined this reaction which he named "conditioned reflex" (Senemoğlu, 2004: 96-97).

Pavlov's conditioning test process:

Pavlov has made this experiment in the laboratory. He connected a tube to the salivary gland of the dog. He then put that tube in a soundproofed test cell. First he gave sound with metronome, the dog turned its head to that stimulus and erected its ears. After giving the sound, he gave a solution containing meat powder. After repeatedly giving the meat together with the voice a few times, he observed that saliva flowed when he only gave the sound without the meat (Senemoğlu, 2004: 96).

The dog does not answer the conditioned stimulus (CS) in the beginning. It gives unconditioned response (UCR) to the unconditioned stimulus (UCS). If both stimuli are made together repeatedly, the dog will make integration between UCS and CS. Thus, the dog will give conditioned response (CR) when only CS is applied. Many experiments similar to Pavlov's have showed that classical harmony is an instinctive process and animals destroy simple key warnings and tend to recognize the main important items and individuals around them thanks to this process.
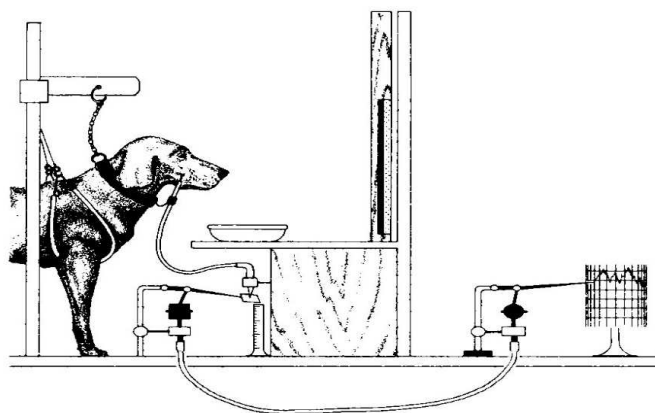

Figure 3: Pavlov's Conditioning Test

If stimulus does not cause any particular reaction in the organism, it is a neutral stimulus; if it causes a particular reaction without any history condition, it is unconditional stimulus; if a new reaction starts to appear after an experience, it is conditioned stimulus. In classical conditioning, it is possible to think that there is a sign of the coming of conditional stimulus. Therefore, classical conditioning is called "signal learning" (Bacanlı, 2005: 164).

2.5.1.1. Principles of Conditioning

Some principles need to be taken into account in the process of conditioning and in creating or preventing conditioning. There principles are contiguity, informativeness (reporting), reinforcement, fading, generalization, discrimination and higher order conditioning (Senemoğlu, 2004: 97).

2.5.1.1.1. Contiguity

It is important that the times of giving conditioned and unconditioned stimuli be close. The most effective conditioning occurs when the conditioned stimulus is given half a second before the unconditioned stimulus. The state of giving conditioned and unconditioned stimuli successively is called "contiguity" (Senemoğlu, 2004: 97-98).

2.5.1.1.2. Reporting

In order for the classical conditioning to occur, the conditioned stimulus needs to be informative about the unconditioned stimulus which will come after the conditioned stimulus. In other words, conditioning occurs when; first the sound (conditioned stimulus) and then the meat (unconditioned stimulus) is given. The sound is a precursor of the meat and thus it gets easier to condition the dog to the sound. If the opposite happens, no conditioning occurs or it barely occurs (Senemoğlu, 2004: 98).

2.5.1.1.3. Strengthening

In order to prevent fading, the unconditioned stimulus (the meat) needs to be given again, just like it is in the classical example of Pavlov's classical conditioning theory, in other words, a reinforcement is needed (Bacanlı, 2005: 165).

2.5.1.1.4. Fading

The process of distinction is closely related to the fading of the behaviour (response). If the conditioned stimulus is given repeatedly but the unconditioned stimulus is not given after it, conditioned response does not occur and the response slowly fades. This is called fading. A dog which is conditioned to bell sound, as in Pavlov's experiment, will not salivate after a certain amount time if meat is not given after a certain bell sound (Fidan, 2012: 39).

2.5.1.1.5. Generalization

The transfer of the learning to other subjects is one of the most fundamental tendencies of the organisms. Both humans and animals use what they learnt in other areas. If a mouse which saw that a cat was trying to eat it did not use this knowledge on other cats, its life would most likely be ended in another cat's stomach. In classical conditioning, it was seen that a dog which learnt to salivate when it hears the bell sound displayed the same response later for the metronome sound and this is called generalization. There is a tendency to display similar responses to stimuli that are close to one another in daily life (Bacanlı, 2005: 166).

2.5.1.1.6. Discrimination

Generalization may sometimes occur against unintentional stimuli, too. In these cases, it is needed to teach the discrimination to the organism. In contrast to generalization, the discrimination is the tendency to give a response by discriminating the conditioned stimulus used in the conditioning process of the organism from the others. For example, while the dog salivated the same amount to 85-stroke and 100-stroke metronome sound, then the meat was given only after the 100-stroke metronome sound, in other words the behaviour was reinforced. After this training, it was observed that the dog distinguished the 85-stroke metronome sound and the 100-stroke metronome sound and that it only salivated, in other words displayed a response, to the 100-stroke metronome sound (Senemoğlu, 2004: 102).

2.5.1.1.7. Higher Order Conditioning

There is no obligation as to be limited to a conditioned stimulus for the result seen after the classical conditioning. If another neutral stimulus (for example excessive illumination or a blackout) is given before the bell sound in the bell-meat-saliva conditioning, the dog will also be conditioned to this stimulus. Just as the dog perceives the bell as a sign or a signal for the meat, the light becomes a signal for the bell. This is called higher order conditioning (Bacanlı, 2005: 167).

2.5.1.1.8. Learned Helplessness

Seligman studied some classical conditioning experiments and asserted that the organism became helpless as a result of the experiment and that it learnt the helplessness. In other words, the organism learns that no matter how hard it tries the situation will not change in some cases and it remains passive and generalizes this passiveness in all unwanted situations (Senemoğlu, 2004: 104).

2.5.1.2. Evaluation of the Classical Conditioning Theory in Terms of the Police Training

It is asserted that the usage area of learning after classical conditioning in the "teaching-learning" environment in classroom is limited and it is a known fact that it plays an important role in gaining some affective and emotional characteristics. Correct use of classical conditioning principles in developing and

improving the interest in education, the wish to learn, ego development, self-confidence formation and other positive feelings. Most of the time, these kinds of feelings are learnt incidentally. In fact, classical conditioning principles need to be intentionally included in the curriculums without leaving the formation of these feelings to coincidences.

It is possible to explain the appearance of this theory in a police cadet with the following example: while some police cadets voluntarily and happily come to the police training institution despite other job opportunities they have and because they love this profession and they want to be a police, some can just come half-heartedly in order to have a job, to make a living until they find a job in their fields and to get out of military service. The fact that police cadets come to the police training centres with different expectations and feelings will affect their ability to learn some topics related to the profession. A cadet who gets happy when he/she thinks about being a police when he/she graduates from the academy has the positive stimulus in order for him/her to internalize the prevocational training and for the real learning to occur. In other words, the stimulus motivating the police cadet and accelerating his/her learning is the fact that he/she loves the profession and he/she is excited to begin the profession. It is easier to reach the desired result from the basic police training, both in practice and in theory, for these cadets than the cadets who involuntarily entered the training for different socio-economic reasons and the result will be more permanent. *Some negative feelings and thoughts stemming from fear, concern and stress negatively affect the decision-making, problem-solving, the displaying of health behaviours, eagerness to learn and analytical-thinking of individuals* (Bulut, 2014: 296).

It is highly important that the police trainers behave in a friendly manner, tell the pleasure of being a police, mention career opportunities to cadets who come to police training centres with negative or neutral feelings against the profession and just to have a job without even knowing the profession. Because, after such an enlightenment and welcome, the feeling of happiness and the interest of the cadet towards being a police will increase. There are enough stimuli for the cadets who grow warm for the profession, who feels good in the academy and who have good relationships with trainers. A police cadet who thinks he/she is in a democratic environment, who knows that he/she is valued as an individual will feel secure, easily express his/her opinions and will easily learn what is told. It will be way easier for a police cadet with enough positive stimuli to understand the skills required by the profession and the mentality of the work.

A democratic environment (unconditioned stimulus)	Feeling secure, Easily expressing opinions, (unconditioned response)
A democratic environment + lesson (unconditioned stimulus) (conditioned stimulus)	Feeling secure, Easily expressing opinions, (unconditioned response)
Lesson (conditioned stimulus)	Feeling secure, Easily expressing opinions, (unconditioned response)

Table 1: Conditioned and Unconditioned Stimulus Chart

The exact opposite of this can also be thought. A police trainer who forces cadets for lessons, who reprimands, punishes and yells at them would create negative feelings on the cadets. These negative feelings may cause the cadets to take a dislike to the academy, the trainers and even the profession.

Reinforcement which is one of the important principles of learning through classical conditioning is highly important in learning. Learnings which are left far from the stimulus or the reinforcement quickly fade away. Therefore, it is very important to use an appropriate number and quality of unconditioned stimulus, in other words reinforcer, in creating terminal behaviours. While doing this, it is needed to keep in mind that some unconditioned stimuli can be perceived differently by some of the individuals and as a result the reactive behaviours of these individuals can be shaped according to this perception. The principals and teachers need to be careful in terms of not having any unconditioned stimuli which can be found in the learning environment and can negatively affect the learning of the students and need to be attentive to have a humane and reliable learning environment (Aydın, 2000: 194-195). Reinforcement in the training of a police cadet will make the learning permanent. The importance of reinforcement in basic police training can be explained with the following example: The cadets who receive shooting training and weapon knowledge in every week of the basic police training which lasts nearly eight months will use weapons repeatedly in this process and will deem the service pistol as a part of their body which they will carry throughout their professional life and will use when necessary. Without a doubt, positive stimuli and reinforcement practices will accelerate the learning of cadets and will allow them to have the abilities required by the policing profession.

2.5.2. Operant Conditioning Theory

Classical conditioning is more about our involuntary behaviours such as concern, fear, relaxation which are in our emotional lives. In this type of conditioning, it is not possible to mention behaviours which

the individual displays voluntarily. Scientists observed that this theory, namely the learning after the classical conditioning could not especially explain the problem solving. Scientists asserted that classical conditioning method could not be enough to explain the learning for this and similar reasons (Fidan, 2012: 40).

One of these scientists is Skinner. Skinner developed the operant conditioning theory and this theory is about our conscious and intentional actions and the following learning, in contradistinction to classical conditioning (Fidan, 2012: 40).

Skinner did not accept the theory in the learning asserted by Pavlov that only the responses are enough. He asserted that operants are also critical in learning. The term operants define the behaviours developed by the organism almost by itself, independent of the environmental stimuli. "*Accordingly, operant conditioning is learning to acquire a behaviour which saves organisms from the punishment and takes them to the reward*" (Aydın, 2000: 196).
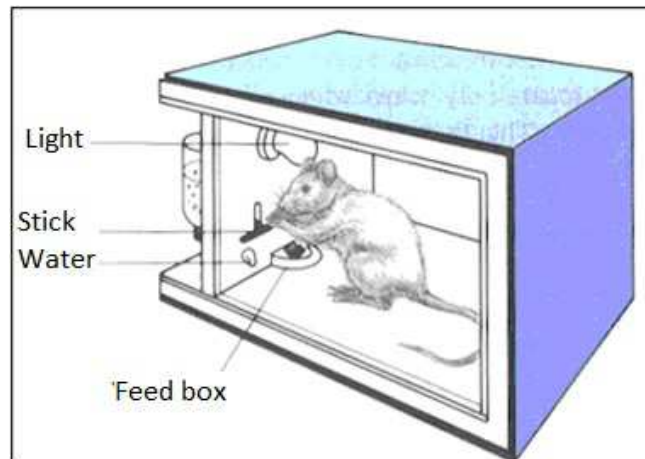

Table 2: Skinner's Operant Conditioning Experiment.

Skinner who conducted his researches on doves, dogs, mice and monkeys found out that these organisms had unbelievably similar characteristics in the learning process despite their biological differences. Skinner mentions two types of conditioning. These are backwash and operant conditioning. He also explains these two conditioning as backwash and operant behaviours. This backwash and operant distinction made by Skinner makes him unique among other scientists. Response could not be mentioned in a place where there is no stimulus according to the traditional stimulus-response psychology from the time of Watson until Skinner. Skinner rendered this view different than others by making the distinction of given response and occurring response (emerging). According to Skinner, there are two types of behaviours. As stated before, these are **backwash** and **operant** conditioning (Senemoğlu, 2004: 146).

• **Backwash Behaviour:**

In order for such behaviour to be displayed, a stimulus is needed. The unconditioned response in the classical conditioning of Pavlov is a typical example for the backwash behaviour theory of Skinner as it is created by an unconditioned stimulus. Reactional behaviours include all reflexes such as the dilation of pupils in the dark and salivation when a lemon is seen (Senemoğlu, 2004).

• **Operant Behaviour:**

This theory is what separates Skinner from the others. According to this theory, no known stimulus is needed for operant behaviour and it occurs by itself. The results are controlled by the individual. Standing up, walking or whistling of a child are operant behaviours. The happiness of the adults who see that the child is standing up and their clapping increases the tendency of the child to display the same behaviour. In other words, the standing up behaviour of the child is controlled by its results. Skinner does not think of the behaviour as independent from the stimulus, as it can be understood from this example, too. However, first the response is displayed (standing up of the child), then it is controlled by the stimulus it produces (claps, surrounding happiness). As a result of this, if the stimulus coming after the behaviour produces pleasure in the organism, the behaviour is repeated. On the contrary, if pleasure is not produced and sorrow or pain is felt, the behaviour is not repeated. In fact, response behaviour is not like operant behaviour and it occurs depending on the stimulus before itself. Skinner mentions two types of conditioning related to these two behaviours. These are response reactional conditioning and operant conditioning (Senemoğlu, 2004).

Operant Conditioning - Process

Operant   → Response   → Behaviour

Organism's random
response which we cannot
determine for which
stimulus it is

Reward
Punishment
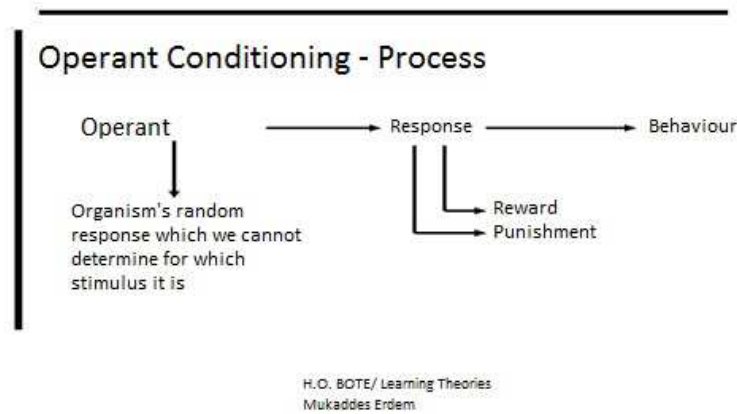
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Table 3: Operant Conditioning Process Chart

• **Stimulus Conditioning:**

This type of conditioning is same as the classical conditioning of Pavlov. Skinner also named this conditioning "S" (stimulus) type conditioning.

• **Operant Conditioning:**

The conditioning related to the operant behaviours is called operant conditioning or "R" (response) type conditioning. The reason why it is called "R" type conditioning is that in this conditioning, the reinforcement is made depending on the response. In fact, in this conditioning, response is critical. Conditioned response is not the response displayed against the reinforcer stimulus as it is in classical conditioning. Skinner's "R" type or operant conditioning has similarities with Thorndike's instrumental conditioning (Senemoğlu, 2004: 148-149).

Skinner put a hungry mouse in a box in which there was a lever. After making many moves, when the mouse touched the lever, cheese was dropped off in the box. The mouse began to continuously push the lever after this reward (Senemoğlu, 2004: 149). This experiment of Skinner is a good example of operant learning. "In this experiment, a **reinforcer** is created for the continuation of the behaviour by awarding the mouse with cheese. **Reinforcer:** It is the effect which is applied in order to make the behaviours permanent. There are two types of reinforcers: **Positive Reinforcer**: It is the effect which creates a situation that praises the individual or that the individual can be satisfied with after a behaviour. **Negative Reinforcer**: It is the effect which ends a situation that upsets or disturbs the individual after a behaviour" (Sözbilir, 2012).

2.5.2.1. Operant Conditioning Principles

Two main elements of Operant Conditioning are mentioned (Senemoğlu, 2004):

• Responses followed by reinforcer stimulus tend to be repeated.

• Reinforcer stimuli increase the possibility of operant behaviour occurrence.

2.5.2.2. The Place of Strengthening and Punishment in Operant Conditioning:

"*Strengthening is the process of increasing the possibility of the behaviour by putting the positive reinforcers into the environment or by removing them*" (Senemoğlu, 2004: 151). When we put the positive reinforcers into the environment, the possibility of displaying the behaviour will increase. This process is called **positive strengthening.** If we remove the negative reinforcers from the environment, the possibility of displaying the behaviour will increase. This process is called **negative strengthening.** The important point in the operant conditioning is; the behaviour and its results. The effect of the results of the behaviour is quite important in frequently repeating a behaviour with a meticulous observation. The organism displays the reinforced behaviour more often. It gives up the behaviour which is not reinforced (Senemoğlu, 2004: 150). The importance of the strengthening in gaining children a terminal characteristic and in educating children cannot be underestimated. If we reinforce a child who does right things, in other words if we award a child in various ways, parents would see a terminal behaviour in their children. Negative strengthening and punishment should not be mistaken for one another.

Operant Conditioning - Basic Principles

Effect law
The behaviours are affected by <u>their results.</u>

Positive strengthening (Positive behaviour - positive
Negative strengthening (Behaviour that eliminates negative
situation - Positive stimulus
Punishment → 1st Type (Negative behaviour - Negative stimulus)
2nd Type (Negative behaviour - Removal of the positive stimulus)
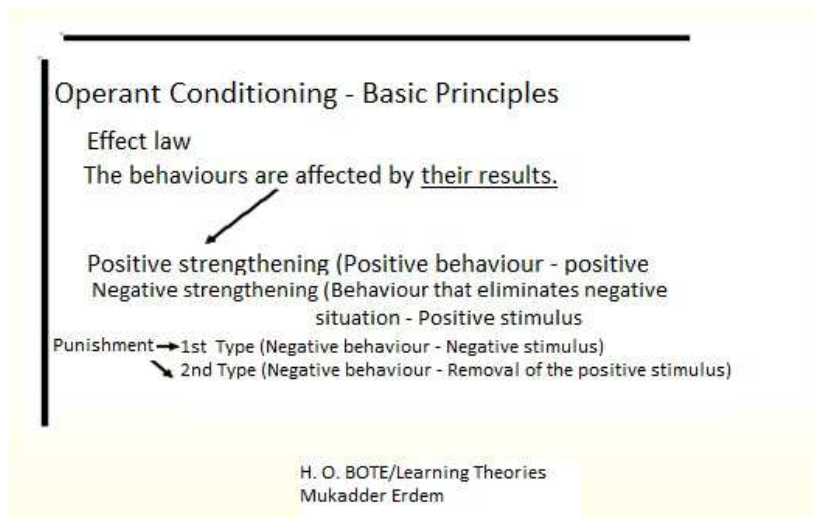
H. O. BOTE/Learning Theories
Mukadder Erdem

Table 4: Operant Conditioning-Basic Principles

Senemoğlu (2004) explains the importance of strengthening with an example as follows: "We learn Turkish. The reason why we learn Turkish is that we are born in an environment in which Turkish is spoken. When we utter sounds similar to Turkish sounds, we are reinforced and we learn Turkish. If we were born in an English, French or Russian home and grew up there, we would learn these languages by being reinforced when we uttered sounds similar to English, French and Russian sounds".

According to Skinner, punishment has a negative effect on the organism. Fear occurs after the punishment and those who were punished generalize this fear to other stimuli too. For example, a student who was punished for disturbing a friend would develop negative feelings towards all stimuli in the class. The punishment can show the organism what not to do but it does not inform it about what to do. According to Skinner, the punishment can cause the organism to be aggressive. The fact that the punishment is still valid is the effect of the punishment, since it can cause other negative behaviours in the long term, its cost could be quite high (Senemoğlu, 2004: 155).

2.5.2.3. Evaluation of the Operant Conditioning Theory in Terms of the Police Training

"*According to Skinner, education creates behaviours that can be useful for individuals or others. In this case, the Teacher is the engineer who creates the useful behaviours*" (Senemoğlu, 2004: 169). According to Skinner, a successful education could be possible with good understanding of teaching and learning processes. Just like almost all behavioural theorists stated, it is needed to determine the objectives to be reached before beginning the teaching. In order to adapt the Operant Conditioning theory to police training, we need to have police trainers with professional experience, who are specialized in their fields and who have pedagogical formation.

• As is known, Skinner does not attach importance to "stimulus-response" conjunction. According to Skinner, the response, namely operants, occurs naturally by itself. If operants are not occurring naturally, the responsibility of the police trainer is to create it by shaping it. The duty of the police trainer should be to shape the behaviours. Shaping behaviours require awareness of the objectives and knowledge of the proper method and technique in order to reach the target. For example in the guns and ballistics lesson, the training is started by first giving a gun without magazine to a police cadet who is afraid of holding or hesitant to hold the gun and the cadet should be taken care of apart from the group and his/her understanding skills are reinforced. Until the cadets who are not afraid of holding the gun -apart from other cadets- get used to gun sound in the range, gun usage is not started. Cadets who hold the gun without being afraid and who have gotten used to gun sound can, in time, begin training with other cadets. In this way, the objective is approached step by step.

• Strengthening is quite important for learning. The response to be given by the student and the strengthening should be successive. Positive reinforcers used for the police cadet should be used according to the realities of the profession in the professional life after the graduation of the cadet. How is the reinforcer used in the basic police training? First, basic physiological needs of the cadets like eating, drinking and sleeping should be met and together with all these, the training should be continued in a proper and clean environment. Since this and similar reinforcers will look, in time, like they are normal in the life, new reinforcers such as rewarding the cadets in different ways during the training, mentioning that those who are successful would be appointed to the cities they want and emphasizing that they will need the training they receive in the academy in their professional lives should be used.

• According to Skinner, the advocate of this theory, punishment should be avoided in training. Appropriate behaviours should be reinforced and inappropriate behaviours should be ignored. According to

Skinner, the indiscipline in the school will be eliminated with a well-planned training. Punishment-oriented training model should not be used in the basic police training. However, despite a police training which is planned, in which reinforcers are used, the rewarding is properly carried out and stimuli are managed well, if a police cadet is not obeying the rules and continues to break the disciplinary rules, he/she should be punished.

• According to Skinner, the main responsibility of the teacher is to teach the students how to learn (Aydın, 2000: 205-206). In this sense, police trainers should be trainers who have pedagogical formation, who are experienced in the policing profession, who knows the field well and who are voluntary to teach (İnankul, 2015: 128-129).

3. DISCUSSION AND CONCLUSION

Most of human behaviours are behaviours that are learnt. How, in which ways, with whose contributions etc. do our learnt behaviours which affect our life, happiness, future, profession, feelings and many aspects of our social life in this way occur? We can change our behaviours as intended and can open the door to a happy future so long as we can answer these questions. Scientists have sought for the answers of these kinds of questions and conducted many scientific researches on the learning phenomenon. Many scientists developed learning theories after scientific studies conducted on learning and each theory tried to explain with the principles it defends how learning occurs.

In this study, following conclusion and suggestions were obtained:

• **Behavioural learning theories** which are one of the learning theories were tried to be associated with basic police training in the study. With a properly implemented learning method, the police cadets who come to police training institutions to be a police after difficult physical, academic and psychologic recruitment processes can be gained the skills required by the policing profession. In police training institutions, if positive learning environment is established, if enough time is spent for basic police training, if stimuli are given properly, if police trainers implement a training policy in light of the basic principles such as feedback-repetition-reinforcement on which the learning theories are based, if the students actively participate in the lesson, if the curriculum is prepared in line with the realities of the policing profession and if without learning a subject, the other subject is not given, it is possible for police cadets to fully learn the requirements of policing profession and to have the skills for the profession.

• **Learning by practising** is the basis in behavioural theories. The student needs to be active in the learning stage. One of the basic principles of this theory is that the students can learn the terminal behaviours after displaying them. That is to say, the student should actively participate in the lesson. Basic police training is theoretical and practice-oriented. Until recently, the basic police training was theory-oriented. Recently, it is observed that the theoretical training is supported by hands-on training. Giving theoretical training together with hands-on training put forward the fact that it develops the basic skills of police cadets towards the profession and that it accelerates the learning. As a matter of fact, the skills a police should have such as close-in defence tactics which they will need most throughout their professional lives, using proportional force in social events, being able to use the available equipment, tools and weapons can be gained by **practicing** rather than by theory.

• **Strengthening** for learning has an important place in behavioural theories. Strengthening is the process of applying stimuli which increase the frequence of repetition of behaviours. The behaviours are affected and changed by the results following them. Saying that police cadets who are successful in a simple close-in defence lesson would be rewarded with weekend leave or be selected the student of the month would be a good reinforcer and stimulus for the cadets.

• **Repetition** is important in ensuring the permanence of what is learnt and in gaining skills. Humans cannot learn skills like speaking, foreign language or playing a musical instrument without repetitions. Repetition is useful in learning as long as it delivers improvement. Repetition of the skills acquired in basic police training in in-profession trainings in the professional life would prevent them from being lost, in other words, from fading.

• **Motivation** is very important in learning. In order for a student to learn a behaviour, they need to be eager to learn that behaviour. Therefore, positive strengthening has a motivating effect. In order for the cadets to be motivated in the basic police training, social, psychological, spatial motivation tools to motivate the cadets should be used in place and correctly and be managed well by the managers. (Özden, 2003; İnankul, 2015).

• **Only one learning theory is not enough to explain the learning.** In basic police training, the trainers should determine what needs to be learnt, the objectives and the techniques to be used before starting to teach and they should use one or more relevant learning theories in this direction.

• The contribution of **doing by practicing, motivation, repetition and strengthening** to gaining the skills required by the profession to cadets should not be underestimated.

• **AS A RESULT,** in summary; in a society in which there is no security, we cannot talk about economic, social, democratic development, investments and prudential sustainable development. In this sense, the main objective of a state is to ensure security. The police ensures the security, fight against crime, protect public order in a democratic and constitutional state and they are the assurance of human rights and freedoms. In this sense, the training of police cadets is crucial. In this study, widely known learning theories were studied and behavioural learning theories were tried to be associated with basic police training. The experiences of the researcher who has been a trainer and an administrator in police training institutions for many years together with the literature study formed the overall framework of this study.

It is not enough to use behavioural learning theories which take basic principles such as reinforcer, repetition, motivation and learning by practicing as basis in basic police training. In addition to this, the permanent learning method based on the thesis that the individuals would intake the information by themselves and process it in their minds and that the learning can occur by processing the outer stimuli in minds on which cognitive learning theories are based can be used in basic policer training. Affective learning theory which explains learning with higher cognitive aspects such as sharing national values and education understanding in which principles such as observation, imitation and modelling on which social cognitive learning theory is based are taken as basis, adopting mutual values of the culture, displaying positive attitudes towards the school and the lessons can be successfully used in basic police training by competent trainers. The constructivist education understanding which takes the formation of the knowledge by the learner as the basis should not be neglected in basic police training.

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