

Extinction research paper samples

[Psychology](#), [Behaviorism](#)



Extinction is the phenomenon when a behavior, that was previously observed, disappears from a person when it is not reinforced (Miltenberger, 2012). When extinction is performed constantly over a long period of time, the undesired behavior gradually disappears, in the longer run. However, in the short term, the subject of extinction is likely demonstrates extinction burst. This burst more frequently occurs when the extinction has just started. The burst is commonly a phenomenal increase in the observed undesired behavior. This increase is temporary and does not last for a long time. Extinction is observed in both conditions: operant and classic.

In operant conditioning, when a previously reinforced operant behavior stops producing results that reinforce the behavior, the said behavior slowly starts disappearing.

In classical conditioning, upon a condition stimulus being solely presented, the unconditional stimulus is not predict any longer. Hence, the conditioned response stops over the period of time.

For example of extinction, consider a child who screams and cries in a super store, asking his mother to buy him a chocolate. The mother buys him chocolate, just so he would stop crying and screaming in public. Her mom is reinforcing his behavior. If we were to apply extinction on the child, the mother would refuse to buy her son, the candy. As extinction outburst, the son will cry and scream even louder and in more intensity, but gradually, he will realize that screaming and crying does not get him any candy, so he will, eventually, stop this behavior. So, the son will refrain from the undesired behavior when his mother stops reinforcing the said behavior.

A study “ Response variability in the white rat during conditioning,

extinction, and reconditioning” undertaken by Antonitis (1951) under the observation of Skinner, in order to define the presumptuous relationship between the degree of variability of some quantifiable aspect of response and number of reinforced training trials. The experiment went forth with operant level of determination which means that the twelve rats were unconditioned responding before the training and then within conditioned and extinction sessions followed by successive extinction sessions. The experiment required sixteen successive days in order to qualify as a successful experiment. The varying figures of twelve nose thrusting rodents were recorded during unconditioned responding, extended regular conditioning, extinction and reconditioning under conditions. The experiment involved these rats to run from a starting-feeding point to a 50-cm response slot, insert their noses into the slot and return to starting-feeding point. Mean Variation of response from the median position was used to determine the variability of the nose positions. The experiment concluded that the variability is constantly larger at the starting than at the end of conditioning and reconditioning sessions. It also led to the conclusion that during unconditioned responding and extinction periods, records of individual rats indicate that variability is relatively high and follows no regular trend in comparison with variability during conditioning and reconditioning.

Another study “ What makes extinction work: An analysis of procedural form and function”, undertaken by Iwata, Pace, Cowdery & Miltenberger (1994), under which three disabled kids were assessed through different processes and experiments aimed to find how the concept of extinction could be used to different functions of self-injurious behaviors (SELF-INJURIOUS BEHAVIOR).

The candidates, who were: Donnie, Jack and Millie fulfilled the criteria of having similar topographies of self-injurious behavior, and they had their self-injurious behavior maintained by different sources of reinforcement. All three subjects were put into therapy rooms with one way observation window. The data was collected on the base of experimenter behavior which involved responding to certain actions and behaviors, which was observed by a second independent observer during 23 percent of all sessions. The subjects were revealed to series of assessment conditions, and were required to identify the maintaining variables of their self-injurious behavior. Furthermore, these subjects were exposed to two or perhaps more than two functional variations of extinctions by a way of reversal baseline design. Donnie, Jack and Millie were revealed to four different conditions which were constructed by/based on Iwata, Dorsey, Slifer, Richman and Bauman. Throughout the study reductions in self-injurious behavior were observed only when the practical implementation extinction involved the discontinuation of reinforcement. The results also put a spotlight on the different treatment techniques that were put into use to topographically similar but functionally dissimilar responses.

Van den Bergh et al., (2006) targeted to evaluate and investigate two things: the relationship between delay aversion and response inhibition both to each other and to locomotion, extinction of conditioned responses as well as sexual behavior and aggressive behavior in their study “ Relationship of delay aversion and response inhibition to extinction learning, aggression, and sexual behavior”. The purpose was to collected quantitative data in regard to the behavior of twenty four lab rats. These lab rats were trained in

an exercise known as Stop-signal exercise. These rats were given different food rewards upon the execution or a response to the audible stop-signal after it was presented to them. These rats were given two options and they had to make the choice. They could've either gone for an immediate small reward or a delayed but a larger reward. The results showed that the delay aversion and response inhibition were both independent events. The results also concluded that the response during extinction and various measures of aggressive behaviors were optimistically inter-related to delay aversion. Furthermore, the study concluded that the role of response inhibition in several behaviors was small, but the delay aversion, specifically, contributed to numerous other actions, as in aggressive actions and extinction. These results helped discover a pattern between delay aversion and response inhibition. In the end, the concept of delay aversion impulsivity cannot be condoned but can certainly be rethink upon.

Azrin, N., Hutchinson, R., & Hake, D (1966) talk about the psychological aspect of initiating a response from an animal when it is threatened with extinction in their study “ Extinction-induced Aggression”. Several researchers have pointed out the presence of an increased ‘ emotional’ state during the phenomenon of extinction. This is evident due to the fluctuations in the response rate and other indications like producing an attack. Based on this evidence, the study at hand endeavored to discover whether the lack of food supply can initiate an attack. For this purpose, a number of experiments involving pigeons were conducted, the first one involving a period of no reinforcement, reinforcement-extinction, and then a period of no reinforcement again. The pigeons were trained to eat the food and peck the

response key. After that, came periods of uninterrupted reinforcement, followed by periods of extinction. In every session, the key pecks produced a tone that signaled the food reinforcement. The cycle was repeated for a number of times. Similarly other experiments were performed. The experiments concluded that in the beginning, the lack of food culminated in little or no attack. But as the duration grew longer, the incidence and duration of attacks increased. They could result in aggressive behavior if the target is able to attack back.

The study regarding Extinction-Induced Aggression during Errorless Discrimination Learning carried out by Rilling & Caplan (1975) at hand is about determining how the process of extinction leads to aggressive behavior. In this, the ability to discriminate between two stimuli also comes into play, so it can be observed how they can cause varying levels of aggression. In the research carried out, two stimuli are provided to pigeons, the first one being provisions in the presence of green light in addition to a pecking key. The second one is a dark key in a state of extinction. After a period of discriminative training, it is observed that the occurrence of attacks is almost zero in the presence of green light, whereas in the dark key, it is much higher. Moreover, in extended period of time, the attacks may lower in rate and even subside completely. A number of related experiments are conducted, including one in which the reinforcements are totally nonexistent in the period of green light, from the start. Therefore, it can be concluded that the presence of reinforcements during the green light period is the reason for the attacks in the extinction period, because without that, attacks cannot happen. Also, the aggression inducing properties cannot occur in the

absence of errorless discrimination training progression.

Lerman, Iwata & Wallace (1999) conducted a study under the title “ Side effects of extinction: prevalence of bursting and aggression during the treatment of self-injurious behavior” with the purpose of finding out the side effects of use of extinction in the patients displaying self-injurious behaviors. The study incorporated 41 data sets for individuals who were under treatment for self-injurious behaviors. Extinction was applied in two different ways on the subjects: sole intervention and form of package with other treatment techniques. Commonly arising side effects in case of sole intervention were anger, aggression, and prevalence of bursting. These side effects were much lower when extinction was used as a part of whole treatment package. The results put forward by the research concluded that extinction alone should not be used as a treatment when treating self-injurious behaviors.

Lerman, Iwata & Wallace (1999) incorporated the different observation in patient with self-injurious behavior, when extinction was used as a way of treatment. It showed that when extinction is applied as a treatment, extinction bursts are usually severe and sometimes, longer than expected. It also showed that extinction can result in negative impact on the behavior in patients portraying self-injurious behaviors. Iwata, Pace, Cowdery & Miltenberger (1994) aimed to find out how extinction should be applied on self-injurious behaviors. It suggested against using extinction alone as a way of treatment. Both the studies used the similar variables such as access, attention and sensory.

Azrin, Hutchinson & Hake (1966), have studied the effects of aggression

brought about by extinction, in which the lack of reinforcements leads to the increasingly emotional and finally aggressive behavior, and has reached the conclusion that before, the attacks were nonexistent but later on increased in frequency in the absence of reinforcements. Whereas Rilling & Caplan (1975), have researched how the absence of a learned behavior leads to aggression in the presence of extinction, and states that the sudden absence of a regular stimulus leads to aggressiveness, and as time goes on, the attacks reduce in number, and may even stop altogether.

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