

This Week's Citation Classic

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Ulrich R E & Azrin N H. Reflexive fighting in response to aversive stimulation. *J. Exp. Anal. Behav.* 5:511-20, 1962. [Illinois Wesleyan University, Anna State Hospital, Bloomington, IL]

The basic emphasis of this paper was that stereotyped fighting would occur between some paired animals as a reflex type reaction to electric shock prior to any specific conditioning. [The *Science Citation Index*® (SCI®) and the *Social Sciences Citation Index*™ (SSCI™) indicate that this paper has been cited over 245 times since 1962.]

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"This study was my Ph.D. dissertation with Nate Azrin as my advisor and director of the Behavioral Research Laboratory in which it was conducted. The Lab was greatly concerned with the study of various aversive control strategies. Thus, the discovery that aggression occurred as a consistent and unlearned response side effect to aversive stimulation was of special importance, especially since operant conditioning people were beginning more and more to take the findings of the lab out into applied settings via the fledgling behavior modification movement. This study was of interest in another way; it emphasized the power of genetic input in the face of the Skinnerian bias toward environmental determinants. Also, the political and social climate was such that aggression was becoming an issue both domestically and internationally.

"Following this paper, I entered into a ten year period of dedicated analysis of the causes of aggression. It was secretly hoped that a better understanding of how to control man's aggression would follow. When I told my Mennonite mother what we had found in my dissertation research she said, 'Well, we know that. Dad always told us to stay away from wounded animals on the farm since they were more inclined to be aggressive.'

"In short, this study was a rediscovery of a well known fact now put to careful scientific analysis. From where do the roots of aggression come? If unconditioned, then how does the environment affect it? The area of study was and still is emotion-laden. We were hurting animals and animal protection groups were concerned. Still, the hope existed that we could shed some light on the issue of controlling man's aggression toward his fellow man. In 1973, I finally came to the conclusion that if the control of human aggression was the touchstone upon which this research was based, we were looking in the wrong place. I still was in no way enlightened in that area to the extent that I could offer meaningful advice to people who questioned me in relation to aggression. Indeed, my own anger was often uncontrollable in spite of my discoveries and laboratory knowledge. Thus one spring, in response to my department chairman's question, 'What is the most innovative thing that you have done professionally during the past year?' I replied, 'Dear Dave, I've finally stopped torturing animals.' "I personally learned a great deal, from the research, about the politics of science, governmental funding, and also myself as I moved from the university laboratory out into an experimental community which showed me that objective science was just another interesting illusion."