

## A TOAST TO MOST: KONRAD MOST, A 1910 PIONEER IN ANIMAL TRAINING

Shortly after the turn of the century, and 28 years before the publication of *The Behavior of Organisms* (Skinner, 1938), an obscure dog trainer in Germany was busy discovering the basic principles of behavior and describing their application in training service dogs. Colonel Konrad Most, a police commissioner at the Royal Prussian Police Headquarters, anticipated many of Skinner's key concepts in his book, *Training Dogs* (Most, 1910/1954). A pioneer in animal training, Most showed an understanding of the key elements of operant conditioning including primary and secondary reinforcement, extinction, shaping, fading, chaining, and negative conditioning (punishment).

Most began training service dogs in 1906 while police commissioner in Saarbrücken. *Training Dogs* (Most, 1910/1954) continues to be recognized as an authoritative source for canine training throughout Europe. Although many of the terms Most used were different from those outlined in *The Behavior of Organisms*, the concepts and rules described are the same. Most demonstrated a clear understanding of the rules of behavior change, giving sound advice to trainers regarding reinforcement, punishment, and providing for generalization.

Most described reinforcement ("inducement," p. 27) as that "agreeable experience" that is provided when the dog has performed a correct behavior. Inducements were to be used in training to follow a correct behavior immediately, as a regular consequence. In teaching a new skill, Most was aware that shaping was critical: the "slightest progress toward the desired behavior should be reinforced, not only with terms like 'good boy,' but with fondling . . ." (p. 34). Most made the same distinction as Skinner between primary and secondary reinforcers. For Most, food and fondling were "primary inducements" (p. 27). Secondary reinforcers (e.g., verbal praise and soft tones) were referred to as "secondary inducements." According to Most, an effective trainer will realize that animals will not

perform consistently with secondary inducements alone; from time to time, the trainer must resort to primary inducements. Most described as the ultimate aim of training the ability to control working dogs by auditory and visual signals (e.g., hand signals) that were "the lightest possible stimulus," thus demonstrating an understanding of the concept of fading (p. 43).

Most was even aware of the problem of extinction. In practical settings such as police work, dogs are required to perform many tasks for which there are infrequent reinforcers. Dogs searching the countryside for human victims lose interest in their work if they search many times and find no one. Most recommended that reinforcers be "planted" if needed to avoid extinction (p. 42). Further, in order to ensure that dogs would not refuse to perform tasks in the real world, Most advocated providing a variety of "distractionary stimuli" (p. 24) during training, indicating an awareness of problems of stimulus control.

Punishment was referred to by Most as "compulsions" (p. 26) and was described as "primary compulsive inducements" (e.g., jerks on the choke collar) or "secondary compulsive inducements" (e.g., intimidating sounds such as the "BAH!!" sound Most used to indicate a dog was not performing correctly) (p. 26). Trainers were warned about the importance of timing when delivering punishment: "If the sense-stimuli in question are separated in time and space from the disagreeable experience or 'punishment,' it will prove impossible to establish the required association" (p. 29).

Because Most's text was, and still is, little known outside Europe (it was translated into English in 1954), it is unlikely that Skinner was influenced by this publication. Nonetheless, it is important to recognize that, historically, Skinner was not alone in his views about the relationship between consequences and behavior. Most's work is significant because he was one of the first behaviorists to articulate some distinctions regarding training procedures and to put them in practice on a large-scale, applied, and functional context. Whereas Most was content to apply his method to dog training, Skinner's contribution was in explaining human

behavior and in setting the stage for the field of applied behavior analysis as we know it.

Skinner, B. F. (1938). *The behavior of organisms*. New York: Appleton-Century-Crofts.

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## REFERENCES

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