

HOME ORIENTATION IN NEWBORN KITTENS

Jay S. Rosenblatt, PhD; Gerald Turkewitz, PhD; T. C. Schnierla, ScD

Institute of Animal Behavior, Rutgers-The State University, Newark, New Jersey
Trans NY Acad Sci 31 (3) :231-250, 1969

The development of home orientation by kittens during the first 3 weeks of life occurs through experience or learning, sensory stimuli and regional differentiation. Orientation involves the adoption of a posture or movement related to the amount or source of environmental stimulation. Becoming home-oriented denotes adaptation of newborn kittens to their mother and siblings, thus development of social behavior in their socially conditioned environment.

Kittens remain in the home region when they are placed there, they gradually orient and, by experience and in response to sensory stimuli, develop the ability to find their way back when placed at a distance from the home. Experience gained through the normal course of the kittens' interactions with the mother, littermates and the home region aids development of orientative responses.

Before their eyes open, kittens respond to a gradient of olfactory stimuli arising from substances deposited on the floor of the home by the mother and kittens, in orienting to the home. When their eyes open on the 7th to 9th day, they develop visual orientation to the home region, after a period in which olfactory and visual stimuli jointly guide them from and back to the home region.

Home orientation develops in phases dependent upon the developmental capacities of kittens, with age and experience, to perceive differences in the gradient intensity of familiar olfactory stimulation at different regions of the home. This is evidenced at first by interruptions, pivoting and circuitous movements when crawling from adjacent and opposite corners to the home center, but later by initiating a more direct path of crawling to the home oriented center.

Kittens vocalize with differing duration and intensity when in different corners of the home and when in entirely different fields, thereby indicating they can distinguish various home and non-home localities. The disturbed behavior of kittens placed in strange areas is evidenced by withdrawal and restriction of movement and by absence of a gradient of familiar olfactory stimuli to guide them. Not until vision becomes an important stimulus do kittens crawl or walk in field situations, but they continue intense and prolonged vocalization. (These case reports reprinted through courtesy of Modern Veterinary Library)