

## XXVI. CUTANEOUS SENSORY MECHANISMS\*

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### RESEARCH OBJECTIVES

There is considerable evidence that severe restriction of the early perceptual experience of animals produces profound disturbances of their perceptual, emotional, and intellectual development. The purpose of our investigation is to carry out a series of studies on the physiological mechanisms that underlie the highly abnormal behavior observed in animals reared in isolation. The focus of individual studies will be on three salient characteristics of the behavior of animals reared in isolation: (a) a frequent failure to perceive and respond to the appropriate environmental cues, including stimuli that are painful to animals that are reared under normal conditions; (b) an extremely high level of excited activity that pervades virtually all of the animals' behavior; and (c) a low capacity for learning new responses in problem-solving situations. The method of procedure for the first problem is to observe the behavior of restricted and normally reared animals from the same litter in response to brief burns and pinpricks and simultaneously to record responses evoked at the midbrain, thalamus, and cortex.

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