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The reinforcement potential of the consummatory act in the modification of chemical-cue preferences.

Naive newborn snakes respond with attack behavior and increased tongue flicking to water extracts of species characteristic prey (*Science*, 157:718, 1967). While feeding experiences with prey can enhance the responsivity to chemical stimuli from such prey, it is not clear whether the association of chemical stimuli with the consummatory act is a factor in addition to food reinforcement. Inexperienced newborn *Thamnophis sirtalis* were exposed briefly 3 or 4 times to earthworm or fish extracts presented on cotton swabs. The following day the snakes were tested on both the fish and worm extracts. It was found that snakes which attacked an extract the previous day and did not habituate showed an increased responsiveness to that extract, while snakes in which attack behavior habituated were more responsive to the inexperienced extract. It can be concluded that food reinforcement is not needed to modify the "releasing value" of a congenital perceptual preference. (Supported by NIMH research grant MH-15707).