[1]张浪千,蒋政,胡博,等.清醒制动家猫条件化瞳孔扩大反射的建立及其习得规律研究[J].第三军医大学学报,2013,35(20):2212-2215.
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清醒制动家猫条件化瞳孔扩大反射的建立及其习得规律研究

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Title: Establishment of classical conditioned pupillary dilations in conscious and fixed cats and study of related acquisition rule

作者: 张浪千; 蒋政; 胡博; 隋建峰
第三军医大学基础医学部基础医学教学实验中心

Author(s): Zhang Langqian; Jiang Zheng; Hu Bo; Sui Jianfeng
Experimental Center of Basic Medicine, College of Basic Medical Scionces, Third Military Medical University, Chongqing, 400038, China

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摘要: 目的 建立家猫条件化瞳孔扩大反射模型并研究其习得规律。 方法 以声音作为条件刺激（conditioned stimulus, CS），尾部电击作为非条件刺激（unconditioned stimulus, US），对3只体质量为2~2.5 kg成年雄性家猫分别用CS-US间隔0 ms和900 ms两种模式训练。用红外瞳孔测量装置实时监测在行为训练过程中的瞳孔面积变化，并以此衡量家猫能否习得条件化瞳孔扩大反射。 结果 在900 ms CS-US刺激间隔训练中家猫习得了条件化瞳孔扩大反射，在经过10、30次配对训练后其习得率分别为26.67%、53.33%， 50次配对训练后习得率达76.67%。在随后的30次消退训练中，习得率呈下降趋势。 结论 家猫条件化瞳孔扩大反射的习得与CS-US刺激间隔和CS刺激数量有关。这种反射能在较少配对训练后就习得，但消退也较快。

Abstract: Objective To establish a model of classical conditioned pupillary dilation in conscious and fixed cats and to analyze the related acquisition rule. Methods With sound as the conditioned stimulus (CS) and tail shock as the unconditioned stimulus (US), 3 health adult cats were trained with CS-US intervals 0 ms and 900 ms separately. With an infrared pupil measurement device, the pupil area changes were recorded in a real-time manner and then to judge whether a cat acquired classical conditioned pupillary dilation. Results The cats acquired classical conditioned pupillary dilations in the 900 ms CS-US interval

model. After 10 times and 30 times pairing training, the acquisition rate was 26.67% and 53.33%, respectively. After 50 times pairing training, the acquisition rate was 76.67%. In the following 30 times fading training, the acquisition rate showed a decrease trend. Conclusion The acquisition of classical conditioned pupillary dilation in cats is related to CS-US interval and CS stimulus amount. This kind of reflex can be acquired in a small amount of pairing training, but fades quickly.

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张浪千，蒋政，胡博，等. 清醒制动家猫条件化瞳孔扩大反射的建立及其习得规律研究[J].第三军医大学学报,2013,35(20):2212-2215.

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