

Accepted Manuscript

A preregistered, direct replication attempt of the retrieval-extinction effect in cued fear conditioning in rats

Laura Luyten, Tom Beckers

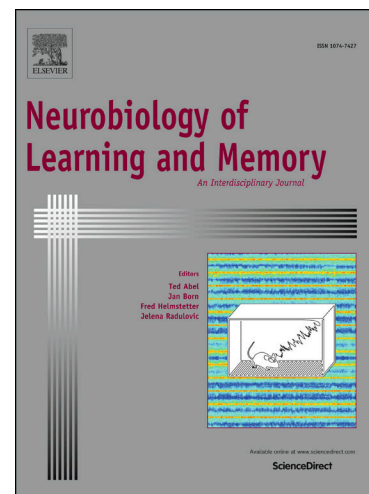
PII: S1074-7427(17)30122-3
DOI: <http://dx.doi.org/10.1016/j.nlm.2017.07.014>
Reference: YNLME 6714

To appear in: *Neurobiology of Learning and Memory*

Received Date: 11 April 2017
Revised Date: 11 July 2017
Accepted Date: 28 July 2017

Please cite this article as: Luyten, L., Beckers, T., A preregistered, direct replication attempt of the retrieval-extinction effect in cued fear conditioning in rats, *Neurobiology of Learning and Memory* (2017), doi: <http://dx.doi.org/10.1016/j.nlm.2017.07.014>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



Title

**A preregistered, direct replication attempt of the
retrieval-extinction effect in cued fear conditioning in rats**

Running title

Preregistered replication of the retrieval-extinction effect

Authors

Laura Luyten & Tom Beckers

Centre for the Psychology of Learning and Experimental Psychopathology, KU Leuven, Belgium

*Corresponding author: Dr. Laura Luyten, KU Leuven, Centre for the Psychology of Learning and Experimental Psychopathology, Tiensestraat 102 PB 3712, 3000 Leuven, Belgium
laura.luyten@kuleuven.be*

Abstract

In 2009, Monfils and colleagues proposed a behavioral procedure that was said to result in a permanent attenuation of a previously established fear memory, thereby precluding a possible return of fear after extinction (Science 2009; 324:951-5). By presenting a single retrieval trial one hour before standard extinction training, they found an enduring reduction of fear. The retrieval-extinction procedure holds great clinical potential, particularly for anxiety patients, but the findings are not undisputed, and several conceptual replications have failed to reproduce the effect. These failures have largely been attributed to small procedural differences. This preregistered study is the first endeavor to exactly replicate three key experiments of the original report by Monfils et al. (2009), thereby gauging the robustness of their seminal findings.

Despite adhering to the original procedures as closely as possible, we did not find any evidence for reduced return of fear with the retrieval-extinction procedure relative to regular extinction training, as assessed through spontaneous recovery, reinstatement and renewal. Behavior of animals in the control condition (extinction only) was comparable to that in the original studies and provided an adequate baseline to reveal differences with the retrieval-extinction condition. Our null findings indicate that the effect sizes in the original paper may have been inflated and question the legitimacy of previously proposed moderators of the retrieval-extinction effect. We argue that direct experimental evaluation of purported moderators of the retrieval-extinction effect will be key to shed more light on its nature and prerequisites.

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات