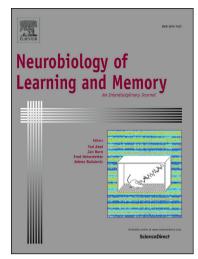
### Accepted Manuscript

Are the Persistent Effects of "Gate Control" Stimulation on Nociception a Form of Generalization of Habituation that is Endocannabinoid-Dependent?

Alex Hanson, Brian D. Burrell

PII:	S1074-7427(18)30225-9
DOI:	https://doi.org/10.1016/j.nlm.2018.09.001
Reference:	YNLME 6934
To appear in:	Neurobiology of Learning and Memory
Received Date:	6 June 2018
Revised Date:	20 August 2018
Accepted Date:	5 September 2018



Please cite this article as: Hanson, A., Burrell, B.D., Are the Persistent Effects of "Gate Control" Stimulation on Nociception a Form of Generalization of Habituation that is Endocannabinoid-Dependent?, *Neurobiology of Learning and Memory* (2018), doi: https://doi.org/10.1016/j.nlm.2018.09.001

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.

## **ACCEPTED MANUSCRIPT**

### Are the Persistent Effects of "Gate Control" Stimulation on Nociception a

#### Form of Generalization of Habituation that is Endocannabinoid-Dependent?

Alex Hanson and Brian D. Burrell, PhD\*

**Division of Basic Biomedical Sciences** 

**Center for Brain and Behavior Research** 

Sanford School of Medicine

University of South Dakota

Vermillion, SD 57069

\*Corresponding Author (bburrell@usd.edu)

#### Highlights

Repetitive stimulation of non-nociceptive afferents is known to produce a persistent decrease in nociceptive signaling.

In this study, evidence was found that supported the hypothesis that the effect of repetitive non-nociceptive stimulation on subsequent responses to nociceptive stimuli represented a form of generalization or transfer of habituation.

Endocannabinoid signaling was required generalized habituation in the nociceptive stimulusresponse pathway, but not for "direct" habituation in the non-nociceptive pathway. A single session of habituation training produced a longer-lasting generalized habituation memory then did multiple sessions of training.

## ABSTRACT

Repetitive activation of non-nociceptive afferents is known to attenuate nociceptive signaling.

However, the functional details of how this modulatory process operates are not understood and

this has been a barrier in using such stimuli to effectively treat chronic pain. The present study

Download English Version:

# https://daneshyari.com/en/article/11004562

Download Persian Version:

https://daneshyari.com/article/11004562

Daneshyari.com