Research Article #5—Pain Thresholds Research Requirement Psychology 350

This is one of the articles you may read and report about for your research component. Critiquing this article is **worth 1 research credit**. Each report will be graded on a pass/fail basis. To get a passing grade, it must be clear that you read the article and have a basic understanding of it. Only passing grades count towards the research component. **Remember you must pass the research requirement to receive a grade for this class.**

Instructions

- 1. Read the vocabulary words and background information.
- 2. Read the questions you will be asked to answer about the article.
- 3. Read the article, making notes on the answers to the questions as you find them.
- 4. Type up your responses to the questions on separate paper.
- 5. Keep a copy of your paper (if I can't find it, you have to produce a copy for me or lose the points)

6. Put the complete answers in my mailbox in room 237 Burnett Hall or email it to cgarbin@unl.edu

On the top of the page put **your name, section number, and student ID number**. Please number each question, type out the complete question and then type your answer. Single or double spacing is fine. Make sure your responses use complete sentences.

Questions for the Report

- 1. What is the title of this article?
- 2. What is this article about? Why does it say it is important for psychologists to study this topic? Use your own words.
- 3. The independent variable is what the researcher manipulates. How many independent variables & what are they?
- 4. The dependant variable(s) is what the researcher measures to see what happens with the independent variable. How many dependent variables were there and what were they?
- 5. Who were the participants in this experiment?
- 6. If you had been in this experiment, what would you have seen/heard/done? In other words, generally describe what the researcher asked the participants to do. Not all participants did exactly the same thing so be sure to indicate those differences. Use your own words.
- 7. What was done to control confounds in this study? What confounds were controlled and what do you think were uncontrolled be explicit!
- 8. In your own words, describe the primary conclusions from this study.
- 9. How might the findings in this research be applied (be sure to apply the info from both studies & to say something that the author(s) didn't!!).

Experimental Pain Thresholds are Influenced by the Sex of the Experimenter

There is general agreement that there are sex differences in the perception of experimental pain. The circumstances under which these differences are more apparent have also been investigated. For example, Lautenbacher & Rollman (1998) have shown that women show lower pain thresholds and tolerances to electrical and mechanical stimulation, but not to thermal stimulation, when compared to men. Sex differences can also be found in the incidence of female subjects reporting greater pain and more types of pain (Unruh, 2002).

There is ample evidence that sex differences in experimental pain perception may have a biological origin, perhaps because of the utility of pain perception as part of the birthing process (Berkley, 1997). However, social pressures such as stereotypical social gender roles could act in synergy with any organic predisposition for sex pain perception differences. For example, Otto and Dougher (1985) showed that participants reported higher pain thresholds when the experimenter was dressed in a business suit or a laboratory jacket than when they were dressed informally in pants and an open-necked shirt. Based on previous work which has demonstrated cross-gender social roll effects, it was predicted that being tested by a female experimenter would cause male participants to report a higher pain threshold than would being tested by a male experimenter.

Method

Participants

Male volunteers from the school wrestling team (N = 34), whose age range was 18 to 23 years (M=20.2, S = .81). All were in good health and not using any form of medication. Participants were randomly assigned to either a male or a female experimenter.

Apparatus

Threshold levels were measured using a pressure algometer which had a range of 0 to 9 kg. The part of the algometer applied to the participant consisted of a round cork cap 1 cm in diameter. Pressure was applied to the upper sternum

to minimize the influence of constitutional factors such as muscle mass or subcutaneous tissue. Participants were seated upright with the back braced against the firm back of the chair.

Procedure

One women and one man each aged 21 years were the experimenters. The male experimenter wore a T-shirt and jeans, while the female experimenter dressed in a laboratory jacket. Both followed exactly the same procedural script, which ensured that the same verbal instructions were given to all participants.

Participants were seated in a small room, isolated from visual or auditory distractions. Participants were told to close their eyes to cut down on possible distractions and to prevent them from trying to read the algometer's calibration. The standardized algometer procedure established by Volton (1953) and used by all researchers in this are was used. Pressure was applied to the upper sternum at a steady rate of 1 kg. per second, until the participant said "stop" when the first pain sensation was felt, and this was taken as the pain threshold measure. The algometer was applied directly to the skin of the participants by the male experimenter, but was applied to the garment worn by the participant by the female experimenter, for obvious ethical reasons.

Results

The average pain thresholds were M = 3.53 (S = 1.16) for female experimenter condition and M = 2.77 (S = .92) for the male experimenter condition. As hypothesized, threshold for the female experimenter condition as statistically significantly different from that of the male experimenter condition, F(1, 32) = 12.322, p < .001.

Discussion

Studies such as the one presented here indicate that pain perception differences between men and women can be amplified by factors such social stereotypes. Given the large numbers of females present in clinic or hospital settings, attenuation of male sensitivity to noxious stimulation by such psychosocial influences could mean that male patients systematically underreport pain as has been observed by Lamey, Clifford, Gijsbers, and Bicholson (1996) and should be taken into account in diagnostic and therapeutic purposes.