I n response to the horrific medical research conducted in the concentration camps of Nazi Germany, the United Nations General Assembly adopted the Nuremberg Code in 1946. The first principle of this code is “the voluntary consent of the human subjects is absolutely essential” (Katz, 1972, as cited in Greenberg & Folger, 1988, p. 21). This principle conveys an emphasis on human rights and personal freedom. The respect for these rights is expressed in today’s psychological research as the principle of informed consent.

Informed consent can be best defined as “the procedure in which individuals choose whether to participate in an investigation after being informed of the facts that would be likely to influence their decision” (Diener & Crandall, 1978, as cited in Greenberg & Folger, 1988, p. 21). The participant must be accurately informed about the research and must be free to decide whether or not to participate in it. The purpose of informed consent is to allow participants the opportunity to protect their own interests and to share the responsibility for their own welfare. It also reduces the legal liability of the investigators and their institutions. For these ethical reasons, informed consent is used in all research involving human participants.

On the other hand, Gardner (1978), Dill, Gilden, Hill, and Hanselka (1982), and Trice (1987) found that informed consent can actually create methodological confounds. Gardner (1978) investigated the effects of informed consent procedures on stress-related research and found that negative aftereffects in performance occurred when informed consent was not used but not when informed consent was used. Gardner proposed that participants given informed consent may perceive greater control over a stressful event.

Dill et al. (1982) also investigated the effects of informed consent procedures in stress research. They found that participants who had the freedom to withdraw from the study performed significantly better on stressful tasks during random bursts of noise than participants who were not free to withdraw.

The purpose of the present study was to further investigate informed consent procedures as a possible methodological confound. We hypothesized that participants who are informed that they have the right to leave will attempt and correctly answer more anagrams in a shorter amount of time than participants who are not informed of this right.
Method

Participants
Twenty-five undergraduate university psychology students (2 men, 23 women) volunteered to participate. Participants were randomly assigned to either the control or experimental group. Participants received class credit for their involvement in the study and were treated in accordance with the “Ethical Principles of Psychologists and Code of Conduct” (American Psychological Association, 1992).

Materials
One of two informed consent forms was given to each participant; one form was standard and one was modified so that the statement that the participant may leave at any time was omitted. We administered three tasks to the participants. The first task was to count the number of a’s in the “Star Spangled Banner.” Next the participants solved a list of 22 anagrams (Tresselt & Mayzner, 1966) to assess performance level (see Appendix A). Finally, we administered a four-question work sheet (see Appendix B).

Procedure
We gave one of the two informed consent forms to each participant at the beginning of the study. An experimenter read these forms aloud to the participants. The participants then completed three tasks in succession. Because the purpose of the first task was to invoke a frame of mind of completing multiple tasks so the participant would not rush, we did not analyze these data. We gave participants a time limit of 20 min to complete the second task, a work sheet composed of 22 anagrams. The number of attempts (excluding the correct attempt), the number of correct answers, and length of time participants took to complete the anagrams measured performance. The third task, specifically the third question, was a manipulation check to assess if participants felt they had the right to leave at any time during the study. After each task was completed and before receiving subsequent tasks, we instructed the participants to place the task in an envelope which was then placed in a box. We implemented this procedure to make the participants believe their responses were confidential and that they could stop at any time. The experimenter debriefed the participants after all tasks were completed.

Results
We used three independent-groups Bonferroni t tests to analyze the data. The dependent variables were the length of time spent answering the anagrams, the number of attempts, and the number of correct anagrams. Means for time, attempts, and correct answers for the standard informed consent group were 13.23 (SD = 4.69), 5.38 (SD = 4.37), and 15.15 (SD = 3.05), respectively. Means for time, attempts, and correct answers for the modified informed consent group were 11.36 (SD = 4.41), 4.00 (SD = 5.14), and 8.45 (SD = 4.32), respectively. Participants who were informed of the right to leave at any time scored significantly higher on correct answers, t(23) = 3.11, p = .005. No significant differences were found on number of attempts, t(23) = 1.12, p = .28, and length of time, t(23) = 1.25, p = .22. The results of the manipulation check were as follows: 9 participants in the experimental group (N = 11) and all participants in the control group (N = 13) answered that they felt they had the right to leave the study at any time.

Discussion
The hypothesis that participants who are informed that they have the right to leave will perform better than participants who are not informed of this right was supported. The perceived ability of the participants to leave at any time appears to have affected their performance, specifically on the measure of correct answers on a task. The other two measures were not significant. We hypothesize that the measure of attempts was not significant because participants may have made attempts in their heads and neglected to put them down on the answer sheet. Next, the measure of time duration was not significant, suggesting that it is not a factor in performance on the tasks used in the study. With regard to the nonsignificance of time duration, one explanation hypothesized is that participants naturally vary in the time taken to complete a task and that this variation is not an indicator of how well they performed on a task. With regard to the manipulation check, all of the participants in the control group and 9 out of 11 participants in the experimental group stated they felt they had the right to leave at any time. The result that the majority of participants in the experimental group stated they felt they had the right to leave may have been partially due to “good subject” role. Further limitations of the study include the small sample size and the exclusive use of introductory psychology students as participants, who may have had prior knowledge of informed consent requirements.

The implications of this study are that informed consent has both ethical and methodological ramifications. These findings suggest that informed consent has an adverse and undesirable effect on research. Given that informed consent is required for use in all research involving human participants, these effects may be detrimental. Therefore, the use
INFORMED CONSENT: A METHODOLOGICAL CONFOUND? □ Burkley, McFarland, Walker, and Young

of informed consent poses a serious problem to research. The findings of this study suggest that further research in areas other than performance is needed to fully understand informed consent’s effects on research.

References


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APPENDIX A

Anagram Task

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<th>Anagram</th>
<th>Correct answer</th>
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APPENDIX B

Manipulation Check Questionnaire

1. What was the research study about?
2. What was the first task you completed?
3. Did you feel you had the right to leave at any time during the study without penalty?
4. Why did you put the task folder in the box?