Whatever Happens in the Laboratory Stays in the Laboratory: The Prevalence and Prevention of Participant Crosstalk

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Foreknowledge in research participants can undermine the validity of psychological research. Three studies examined a potentially major source of foreknowledge: participant crosstalk in an undergraduate subject pool. Participants in all three studies attempted to win extra experimental credit by guessing the number of beans in a jar—a nearly impossible task without foreknowledge of the answer. Participants guessing incorrectly were told the correct answer by the experimenter. In Study 1, 23 of 809 participants showed clear evidence of having received the correct answer from a prior participant. In Study 2, a classroom-based treatment asking students not to talk about experiments to other students significantly reduced crosstalk rates. In Study 3, a laboratory-based treatment supplemented the classroom-based treatment. After revealing the number of beans in the jar, the experimenter obtained a verbal commitment from participants that they would not tell anyone about the experiment. The combined treatment nearly eliminated crosstalk.

Keywords: *crosstalk; methodology; participant pool; research methods*

Foreknowledge in research participants can undermine the validity of psychological research. Participants with foreknowledge of experimental hypotheses or procedures are likely to behave in a manner inconsistent with the behavior of participants without such knowledge (Glinski, Glinski, & Slatin, 1970). Moreover, if such foreknowledge remains undetected, it can lead to potentially inaccurate support or refutation of hypotheses. In addition, participants with foreknowledge often have a more negative experience in the laboratory setting compared to their counterparts (Aronson, Ellsworth, Carlsmith, & Gonzales, 1990). Indeed, foreknowledge is such a concern in research settings that many research methods texts stress the importance of avoiding the creation of foreknowledge (e.g., Aronson et al., 1990; Martin, 2000).

Foreknowledge can stem from a number of sources, including unintended transparency in research protocols (Glinski et al., 1970). Fortunately, this source of foreknowledge can often be detected by a suspicion probe (Aronson et al., 1990) and reduced by modifying the protocols. Unfortunately, foreknowledge stemming from a different source—*participant crosstalk*—may be more difficult to detect. Crosstalk occurs when one participant who has been through the full research protocol spontaneously reveals key details about the protocol to another potential participant. Because the information

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recipient probably realizes that the information should not have been revealed, the recipient might be hesitant to admit foreknowledge to the experimenter. Indeed, in an experiment in which all participants received such information from a confederate just before participating in a research protocol, only 1 of 81 participants revealed their receipt of insider information to the experimenter (Sagarin, Rhoads, & Cialdini, 1998).

Despite its potential consequences, crosstalk has received limited attention from researchers. Several studies suggest that crosstalk might occur with a surprisingly high frequency (Horka & Farrow, 1970; Taub & Farrow, 1973; White, 1977; White & Le Huray, 1974). These studies found that information provided to research participants quickly spread among students in a grade school classroom. In some studies, there was evidence that almost half of the students had received extraexperimental communications (Horka & Farrow, 1970).

Given the grade school participants involved in the research just described, the generalizability of these findings to a typical college undergraduate subject population is questionable. Nonetheless, data from college undergraduates suggest that crosstalk can occur in college subject pools. For example, some studies have examined participants' willingness to reveal information about a study when directly questioned by another person (e.g., Farrow, Farrow, Lohss, & Taub, 1975; Golding & Lichtenstein, 1970; Wuebben, 1970). Typically, these studies involve participant responses to a confederate request for information about a study the participant recently completed. Although one early study (Aronson, 1966) found that none of the 9 debriefed participants revealed any information to a confederate, other studies have found higher rates of crosstalk. In such studies, estimates of the extent to which participants revealed experiment information to inquisitive confederates have ranged from 8% (Walsh, 1976) to an alarming 78% (in one condition of Lichtenstein, 1970).

These studies demonstrate participants' willingness to reveal information when asked. However, to our knowledge no studies have examined levels of spontaneous crosstalk in an undergraduate subject pool. Does this phenomenon occur? Anecdotal evidence suggests it does. On at least one occasion, participants on the campus of Northern Illinois University (NIU) were overhead discussing details of the study in which they were about to participate (Edlund, Sagarin, & Johnson, 2007). In addition, a recent inquiry made to the Society for Personality and Social Psychology listserv revealed that similar incidents have occurred at other institutions. Moreover, respondents to our inquiries revealed general apprehension about participant crosstalk.

Hence, one concern in the current article is assessing the level of crosstalk that occurs among research participants who are all drawn from a typical introductory psychology subject pool. A second concern is how to reduce such crosstalk. That is, assuming that crosstalk occurs in undergraduate subject pools, what can be done to minimize it?

Empirical evidence that bears on this question is limited. Walsh and Stillman (1974) investigated the effectiveness of debriefing protocols that included nondisclosure instructions in reducing participants' willingness to reveal information about an experiment. When a confederate called a participant at home, the debriefing reduced, but did not eliminate, participant crosstalk. However, in a face-to-face setting in which the confederate questioned the participant immediately after experiment completion, the debriefing did not substantially reduce crosstalk rates.

It appears that this is the only study that directly investigated the effectiveness of a technique to reduce the extent to which participants convey experimentally relevant insider information to other members of an undergraduate subject pool. Interestingly, despite the paucity of evidence regarding the effectiveness of debriefing protocols, such protocols are commonly advocated as a means to reduce participant crosstalk (Aronson et al., 1990). The research described in this article attempts to fill this void by examining the effect of nondisclosure instructions on crosstalk rates among those in an introductory psychology subject pool.

PRETEST

To detect crosstalk, we designed a task at which it was nearly impossible to succeed without prior inside information: accurately guessing the number of beans in a jar. After filling a large, transparent jar with beans, 50 students from upper-level psychology classes were asked to estimate the number of beans in the jar. Guesses ranged from 208 to 2.3 million beans. The *actual* number of beans in the jar was 7,852. After eliminating the extreme outliers, the mean guess was 5,207 beans. Based on this pretest result, we established a false "correct" answer that would be provided to participants after their guesses and, hence, that could be communicated as "insider information" to other participants. That value was 4,934 beans, with an acceptable guess window set at 25 beans above or below 4,934. These values were chosen to provide: (a) an incorrect, but plausible, value reflecting the number of beans in the jar, thus minimizing suspicion; (b) a large enough window of acceptable guesses so participants would believe they had some chance of guessing within the window; and (c) a range of acceptable guesses (4,909 to 4,959) that did not include any round numbers likely to be guessed spontaneously (e.g., 4,900, 5,000).

To verify that this guess range was unlikely to occur by chance, 143 additional students from upper-level psychology classes estimated the number of beans in the jar. None guessed within 25 beans of 4,934.

Looking at all of the guesses that occurred across the three studies and the pretests reported herein (N = 3,991), the mean guess was 15,677.53 (SD = 98,248.12), the median guess was 2,000, and 1 guessed value fell within 25 beans of the actual number (7,852) of beans in the jar.

STUDY 1

We next sought to determine the prevalence of crosstalk in our undergraduate subject pool. The basic idea was to reveal a false value for the number of beans in the jar to each participant who completed the procedure. Because this value was false, and because guesses at or close to this false value were extremely unlikely, it is likely that guesses within this value range made by research participants provide evidence of crosstalk.

Because spontaneous crosstalk would require participants to whom the false "correct" answer had been revealed to convey the answer to a potential future participant who would then need to enroll in the study (a process that could take a couple of weeks), we endeavored to collect data from as many subject pool participants as possible over the course of an entire semester. Because of the large sample size obtained, the data should be a good reflection of the experiment-related crosstalk rate in the entire subject pool across the entire semester.

Method

Participants. Participants consisted of 809 students taking the Introduction to Psychology course at NIU during the spring 2006 semester (total course enrollment was approximately 1,400). Of these participants, 415 were men and 394 were women. Compliance with the request to participate in the bean-judging task was good: Only 5 participants (2 men and 3 women) were offered the opportunity to participate in the experiment and chose not to participate, most reporting that they had obtained the maximum number of points available for extra credit. No other demographic information was collected.

Procedure. The crosstalk study was conducted as an addendum to a survey study, the details of which are irrelevant to the crosstalk study. At the conclusion of the survey, participants were asked if they would like to take part in an additional experiment for the chance to win 1 extra experimental credit point. Introduction to Psychology students who choose the participation option are asked to earn 8 experimental credit points over the semester, with experiments generally providing 1 point per half hour of participation time. Thus, students were typically motivated by the possibility of earning an extra experimental credit point.

Participants who agreed were then shown the jar of beans and told that if they guessed within 25 beans of the actual number in jar they would win 1 extra point. Participants who guessed within 25 beans of 4,934 were congratulated and given an extra experimental credit point. Participants who guessed outside of this range were told that their guess was not close enough. They were then told that the jar actually contained 4,934 beans. Participants were then thanked for their participation and dismissed.

Participant guesses were coded into one of three response types: clear crosstalk, possible crosstalk, and no crosstalk. Participant responses were coded as clear crosstalk if they guessed within 25 beans of 4,934 or if they spontaneously volunteered information indicating that they had received extraexperimental information (e.g., a participant who stated, "My girlfriend just did the experiment earlier today and told me the number") or if other responses unambiguously denoting crosstalk were observed (e.g., a participant who guessed "934," and upon being told that the correct answer was 4,934, stomped his foot and stated, "It was 4,000!"). Participant responses were coded as instances of possible crosstalk if they displayed mannerisms and verbalizations that suggested the possibility of crosstalk, but such evidence was not deemed conclusive by the experimenter as to whether it truly represented an instance of crosstalk (e.g., participants who had suspicious actions including a quick and confident guess near the assigned value but not in the target value range). Participant responses were coded as providing no evidence of crosstalk if they gave no indication in guess or mannerisms that they had received any insider information pertaining to the number of beans in the jar. All of the experimenters were trained by one of the authors, who provided guidance and examples of what could constitute clear crosstalk, possible crosstalk, and no crosstalk. In addition, the experimenters were kept blind to the results of the previous studies.[1]

Results and Discussion

Of the 809 participants in the experiment, 23 (2.8%) showed clear evidence of crosstalk and an additional 4 (0.5%) showed evidence of possible crosstalk. Of the 23 participants who showed evidence of clear crosstalk, 13 were identified by means of their self-disclosures or their mannerisms, and 10 were identified by their numerical guess. Given the near impossibility of reporting the false

target value established for the bean-counting task, we believe that every incident classified as crosstalk represents evidence of extraexperimental communication. To further establish this point, we subjected the data to a chi-square analysis, using the pretest data for comparison (143 incorrect guesses). Using a conservative definition of crosstalk (only counting clear incidents of crosstalk: 23/809), the difference between the data collected in Study 1 and the data collected in the pretest is statistically significant, $\chi^2(1, N = 952) = 4.166$, $p_{\text{Fisher's exact}} = .037$. Using a liberal definition of crosstalk (counting clear crosstalk and possible crosstalk: 27/809), the difference between the data collected in Study 1 and the data collected in the pretest is also statistically significant, $\chi^2(1, N = 952) = 4.912$, $p_{\text{Fisher's exact}} = .024$. Additional analyses showed that there was no significant difference between the crosstalk rates observed for men (16/415) and for women (11/394), $\chi^2(1, N = 809) = .709$, $p = .400$.

The results of this study suggest that crosstalk occurs in an Introduction to Psychology subject pool. In the present study, nearly 3% of the sample arrived at the lab seeming to know information that rendered their data meaningless. Furthermore, one can argue that the crosstalk rate we observed may be an *underestimation* of the true crosstalk rate. For example, 2 participants spontaneously volunteered that they had been told the number of beans in the jar but that they had tried not to let it bias their guess. Other participants were likely not as forthcoming. Additional participants may have been provided with the false value but may have forgotten that value by the time they encountered the task.

Taking such issues into account, our results suggest that crosstalk is indeed a valid concern when results of research depend on the participation of individuals who are unaware of the goals, methods, and outcomes of a given study. Accordingly, we next sought to investigate methods of reducing crosstalk rates.

STUDY 2

Our first attempt to reduce crosstalk consisted of two changes to the Introduction to Psychology course curriculum. First, a brief lecture encouraging students not to talk about experiments to other students was given by course instructors at the beginning and middle of the semester. Second, the course textbook contained an introductory section that detailed course rules and procedures. Two pages of text in this section established and reinforced the prohibition on crosstalk. For example, one phrase repeated in the section was "whatever happens in the laboratory stays in the laboratory."

Method

Participants. Participants were 631 students taking the Introduction to Psychology course during the spring 2007 semester (total course enrollment was approximately 1,300). Of these participants, 328 were men and 303 were women. Compliance with the request to participate in the bean-judging task was good: Only 3 participants (2 men and 1 woman) were offered the opportunity to participate in the experiment and chose not to participate, most reporting that they had obtained the maximum number of points available for extra credit. No additional demographic information was collected.

Procedure. The experiment's procedure and the data collected were identical to those described in Study 1. The sole difference between Study 2 and Study 1 was that for Study 2, information enjoining students to refrain from crosstalk was provided. This information was provided twice in course lectures (once at the beginning of the semester and again at midsemester). The information was also contained in an introductory section of the course textbook that described course rules and procedures (see the appendix for the text of this section). The information conveyed in the lectures duplicated, in summary form, the information provided in the textbook.

Results and Discussion

Of the 631 students who participated in the experiment, responses from 6 (0.95%) showed clear evidence of crosstalk and responses from an additional 7 (1.1%) reflected possible evidence of crosstalk. Of the 6 participants who showed clear evidence of crosstalk, 2 were identified by means of their self-disclosures or their mannerisms, and 4 were identified by their numerical guess. Compared to the rates of crosstalk observed in Study 1, the in-class treatment produced a significant decrease in the rate at which crosstalk occurred when we included only clear incidents of crosstalk in an analysis, $\chi^2(1, N = 1{,}440) = 6.432$, $p = .011$. When we included both clear incidents and possible incidents in an analysis, the decrease approached significance, $\chi^2(1, N = 1{,}440) = 2.202$, $p = .095$. As in Study 1, there was no significant difference in the crosstalk rate exhibited by men (9/328) and women (4/303), $\chi^2(1, N = 631) = 1.582$, $p = .208$.

These results suggest that the in-class treatment was successful in reducing the rate of crosstalk. It did so by 66% (34% when looking at evidence from episodes of both clear crosstalk and possible crosstalk). Thus, communicating and reinforcing the rule that "whatever

happens in the laboratory stays in the laboratory" may have effectively convinced at least some students not to reveal experimental details to other participants. Anecdotally, these results were borne out by the experimenters' experiences outside of the laboratory. During the semester, there were few incidences of experimenters overhearing participants talking about experiments in the hallways of the psychology building.[2]

STUDY 3

Despite our success at obtaining data suggestive of a reduction in crosstalk, the in-class treatment did not eliminate evidence of crosstalk. Study 3 tested an in-laboratory treatment designed to further reduce the apparent rate at which participant crosstalk occurred.

This in-laboratory treatment was largely influenced by the recommendations offered in Aronson et al. (1990) and Cialdini (2001). Aronson et al. suggested that experimenters should inform participants about the detriment to the experimental process that can occur if they reveal aspects of the experiment to other potential participants. In addition, Cialdini pointed to the positive benefits of a obtaining a verbal commitment in influencing later actions.

The in-laboratory treatment in Study 3 was influenced by these ideas. In this study, after revealing the number of beans in the jar, the experimenter asked the participant not to tell anyone about the experiment "to help keep guesses normal" then *waited for a verbal confirmation* from the participant that he or she would not do so.

Method

Participants. Participants were 1,248 students taking the Introduction to Psychology class at NIU during the autumn 2007 semester (total course enrollment was approximately 1,700). Of these participants, 528 were men and 720 were women. Compliance with the request to participate in the bean-judging task was good: Only 17 participants (5 men and 12 women) were offered the opportunity to participate in the experiment and chose not to participate, most reporting that they had obtained the maximum number of points available for extra credit. No additional demographic information was collected.

Procedure. With one exception, the procedure, methods, and measures used in Study 3 were the same as those used in Study 2. After revealing the number of beans in the jar, the experimenter then continued by making a brief request to the participant not to tell anyone about the experiment. The experimenter said: "Thanks for trying. I would like to ask that you not tell anyone about this experiment, to help keep guesses normal. Is that okay with you?" After getting a verbal commitment not to talk about the experiment, the experimenter dismissed the participant from the laboratory.

Results and Discussion

Of the 1,248 students who participated in the experiment, responses from only 1 participant (< 0.1%) showed clear evidence of crosstalk, and responses from an additional 3 participants (0.2%) showed evidence of possible crosstalk. The participant who provided clear evidence of crosstalk was identified by means of self-disclosure or mannerisms. Compared to the in-class treatment from Study 2, the laboratory treatment significantly decreased the crosstalk rate, regardless of whether that rate came from clear incidents of crosstalk, $\chi^2(1, N = 1{,}879) = 8.561$, $p_{\text{Fisher's exact}} = .003$, or from both clear incidents and possible incidents, $\chi^2(1, N = 1{,}879) = 14.148$, $p < .001$. As in Studies 1 and 2, there was no significant difference in the rate of crosstalk exhibited by men (2/528) and women (2/720), $\chi^2(1, N = 1{,}248) = 0.097$, $p_{\text{Fisher's exact}} = 1.0$.[3]

Overall, the results from Study 3 demonstrate the effectiveness of an in-laboratory treatment derived from recommendations of Aronson et al. (1990) and Cialdini (2001) intended to reduce the prevalence of crosstalk. Of the 1,248 participants, only 1 showed clear evidence of crosstalk and only 3 more showed possible evidence. This suggests that when an in-classroom treatment is combined with an in-laboratory treatment, researchers can nearly eliminate evidence of participant crosstalk from participant responses in experiments.

GENERAL DISCUSSION

Across three studies we investigated the prevalence of participant crosstalk in an undergraduate subject pool and tested the effectiveness of two treatments designed to reduce this crosstalk. Study 1 demonstrated the occurrence of crosstalk, with the laboratory behaviors of nearly 3% of participants seemingly influenced by insider information received from other participants. The information transmitted and received by participants was patently false, having been planted by researchers as a vehicle to detect the occurrence of crosstalk. Moreover, the 2.8% crosstalk rate likely represents an underestimation of the true rate of crosstalk. An additional 0.5% of participants evinced behaviors that were suggestive of crosstalk but were not conclusive. Moreover, other participants might have received the information but either chose not to use it, did not

reveal the receipt of the information, or were given the information and forgot it.

Study 2 investigated the effectiveness of a classroom-based treatment to reduce the prevalence of crosstalk. The course textbook was modified to include a section admonishing students that "whatever happens in the laboratory stays in the laboratory," and classroom instructors reinforced this injunction at the beginning of a semester and near semester midterms. This manipulation successfully reduced observed rates of participant crosstalk, cutting the prevalence from 2.8% to less than 1%. Nevertheless, some crosstalk remained.

Study 3 added an in-laboratory treatment to the classroom treatment. After each session of the guessing experiment, the experimenter asked the participant not to reveal information about the experiment and obtained a verbal commitment from the participant. This treatment, in conjunction with the classroom treatment, nearly eliminated evidence of crosstalk. In Study 3 there was only one clear crosstalk-indicative response from 1,248 participants. Although the combined treatments did not completely eliminate crosstalk, they substantially reduced its prevalence. Accordingly, these results suggest that our in-class and in-laboratory treatments could be a valuable addition to practices employed in research contexts, especially when the research employs an undergraduate subject pool in which participant foreknowledge could threaten the validity of experiments.

Although our studies document the existence of crosstalk and suggest ways it could be reduced, we suggest caution when considering several elements of our results. First, our estimate of a 2.8% crosstalk rate may not generalize to other subject pools or to other experimental circumstances. For example, in the present studies, crosstalk provided no personal benefit to the participant revealing the answer (beyond the possible gratitude of the recipient). Indeed, in Study 3, after being asked not to reveal information about the experiment, some participants asked why they would possibly reveal the answer to anyone else when they failed to guess accurately themselves. This answer suggests that crosstalk rates might increase when participants perceive a personal stake in providing information to others. Additionally, it is unlikely that the classroom technique reported in Study 2 would be effective in a nonclassroom setting.

A second caution comes from the fact that the guessing methodology used in the study was brief and innocuous. Such brief and innocuous methods may not lend themselves to high crosstalk rates. In comparison, studies that involve aversive experiences, large deceptions, and other unusual techniques might induce high crosstalk rates as participants warn others about the procedure or take revenge on the experimenter who inflicted an unpleasant experience on them. Clearly, then, although our studies show that crosstalk occurs, one should not be unduly comforted by the relatively low rate. We think it is likely that participants who complete especially novel, difficult, or deceptive experiments might evince substantially higher crosstalk rates.

A third caution comes from the fact that we do not know the effect of the postexperiment assent procedure used in Study 3 independently of the effect of the class injunction procedure used in Study 2. We interpreted the result of Study 3 as reflecting an additive effect between the class injunctions entreating students to avoid crosstalk and the postexperiment agreement procedure. However, other possibilities exist. For example, it may be that the postexperiment agreement procedure may have produced identical results, regardless of whether students previously received in-class and textbook injunctions to avoid crosstalk. Alternatively, it may also be that the laboratory procedure worked precisely because it reminded people of those earlier injunctions. Clearly, additional research needs to clarify the exact contributions made by each of the two crosstalk-reducing manipulations used in Study 3.

Finally, we note that we measured only the outcomes of the crosstalk-reduction manipulations employed, not the actual crosstalk rates. Hence, it is possible that participants in Studies 2 and 3 may have been told the number of beans in the jar just as often as those who participated in Study 1, but because of the textbook and postexperiment injunctions may have chosen to ignore or avoid use of such information. In addition, those injunctions may have motivated participants to avoid letting the experimenter know they knew the information. Hence, in the future it would be desirable to obtain measures of actual crosstalk rates, either from self-reports directly obtained from students or from observational procedures. In the latter case, observational procedures can formalize our anecdotal observations, with experimenters roaming the hallways of the psychology building during class changeovers and before experiments, recording crosstalk occurrences.

The data we collected suggest that participants who have been through a laboratory procedure will reveal critical research information to those who may later go through the same procedure. This may be especially likely when research participants have significant out-of-laboratory contact, as is often the case among students who are collectively enrolled in an Introduction to Psychology course. However, our data suggest that such effects can be minimized by at least two simple procedures. One of these comes from classroom practices in which students are frequently reminded of the importance of nondisclosure: "Whatever happens in the laboratory stays in the laboratory." The second comes from

a procedure in which participants who complete a procedure are induced to assent to a specific postexperiment nondisclosure request. By itself, the classroom-based treatment yielded responses suggestive of reduced crosstalk rates; when the classroom-based treatment was combined with the laboratory-based treatment, biased responses suggestive of the receipt of insider information derived from crosstalk were nearly eliminated.

APPENDIX

Post-Experiment Stuff: Gentlemen and Gentlewomen Never Tell

After the experiment is over, we will try to facilitate this learning by giving you information about the experiment. That is, at the conclusion of each study, one of two things will happen. One of these might be that **you will be given a "debriefing"** which may include a summary of the hypotheses of the research and the rationale for its procedures. A second might be that you will be **given a "learning point,"** a description of a part of the procedure and how it was used. You may also get some suggestions for additional reading that you can pursue on your own if you are interested in the research topic pursued by the study. A telephone number will be given to you if you would like further information about the research, if you have any questions that occur to you at a later time about the research, or if you are interested in learning more about the outcome of the research.

Now, this is where things are important**. We desperately want to use the experiments to teach you about psychology.** To do that, the researchers who run each experiment will talk to you about their experiment: what they are doing and why they are doing it. **The course coordinator is FORCING them to do this because he wants you to LEARN about psychology from your research experiences.** However, the researchers are taking a big risk by describing their research. The results of their research often depend on people showing up with no knowledge of what their experiment is about. If people who go through a procedure tell others about it, this desirable lack of knowledge might no longer be there. Hence, there is a rule that we want you to use in this course:

WHATEVER HAPPENS IN THE LABORATORY STAYS IN THE LABORATORY

Now, this is a little extreme. In reality, there are people to whom you can speak about the research in which you participate (e.g., your mom, your dad, your grandparents, your barber, etc.). In fact, if a researcher does something to you that makes you physically or psychologically uncomfortable, **TALK TO SOMEONE (e.g., the COURSE COORDINATOR) AS QUICKLY AS YOU CAN.**

This rule is really meant to **discourage you from describing procedures to other students in Psychology 102.** Remember, any student who participates in an experiment should do so without detailed foreknowledge of the experimental procedure. Hence, please do not describe such details to people who might later sign up for the study and participate in it.

We are emphasizing this rule this year because some of the NIU psychology researchers did a study showing that people did talk to each other about the experiments (the researchers planted misinformation and then assessed who entered a study with the planted misinformation). It did not happen much, but it happened enough that it caused the researchers to be worried about it.

Remember, we are trying to make the researchers happy, and at the same time, trying our best to make the experiments educational for you. For us to achieve both of these goals, we need you to not divulge details about experiments to other people in PSYC 102 after you are told about them. Thus, please follow this rule with respect to other PSYC 102 students:

WHATEVER HAPPENS IN THE LABORATORY STAYS IN THE LABORATORY

NOTES

1. As an anonymous reviewer correctly noted, we were, in effect, rewarding participants for cheating in these studies—an aspect of our methodology that raises legitimate ethical questions. We have been sensitive to these concerns, and we note in this regard that (a) the methodology was designed to minimize the time participants spent participating, so those who did not get extra credit had invested less than 1 min of their time; (b) it was necessary to give extra credit to the cheaters to maintain the integrity of the studies; and (c) the studies were approved by the Northern Illinois University Institutional Review Board (IRB). Thus, although we acknowledge the uncomfortable irony of rewarding cheaters, as the IRB concluded, the beneficial knowledge obtainable from these studies outweighed the possible ethical harm done. We designed the present methodology to create unambiguous evidence of crosstalk. Researchers willing to accept some ambiguity in exchange for avoiding these ethical issues could design alternative methodologies in which foreknowledge would change participant behavior but without tangible benefits. For example, if participants are told at the end of an experiment that a hidden camera in the corner of the room had recorded their behavior, future participants could be observed for telltale glances toward that corner.

2. During autumn 2006 we collected data from 1,161 participants using the same procedure as used in Study 2. Of the 1,161 participants, 11 (1%) showed some evidence of crosstalk (8 clear incidences, 3 possible incidences), which represented a significant decrease from Study 1, $\chi^2(1, N = 1{,}970) = 11.808$, $p = .001$. The similar results obtained in this study and in Study 2 suggest that crosstalk rates are comparable across semesters (spring vs. autumn).

3. Though none of the studies reported herein individually yielded a gender difference in crosstalk rates, an analysis in which the data from the all of the studies were combined did so. Responses from men showed a higher rate of crosstalk (34/1,780) than responses from women (21/2,069), $\chi^2(1, N = 3{,}849) = 5.443$, $p = .020$. However, it is not clear if this effect occurred because women more often complied with the injunction to not reveal experiment information or because of a naturally occurring difference in crosstalk rates. Such ideas require further exploration.

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