The Unique Ethical Challenges of the Bogus Pipeline Methodology: Let the Data Speak

HERMAN AGUINIS AND MITCHELL M. HANDELSMAN University of Colorado at Denver

Sigall (1997) asserted that the bogus pipeline (BPL) methodology is not a uniquely deceptive technique and, therefore, does not pose unique ethical challenges for social psychology researchers. We argue that empirical research is needed to clarify the controversial issue of the ethics of using the BPL. Results of such a research program will provide guidance for researchers as well as institutional review boards regarding conditions under which the use of the BPL may or may not be ethically justified.

The bogus pipeline (BPL) is an extremely clever methodology proposed by Jones and Sigall (1971) to decrease socially desirable responding in self-reported behaviors and opinions. Researchers inform participants that the BPL, typically a seemingly complex machine including several knobs and blinking lights, is an infallible lie detector. In fact, however, the machine is fake and is not a lie detector. However, researchers invest considerable resources in sophisticated equipment and time-consuming procedures so that study participants are convinced (i.e., deceived) that they actually are facing a lie detector, and a very accurate one. If the BPL is effective and study participants are deceived, they may be motivated to provide more honest self-reports on sensitive research topics such as racism and sexism (Roese & Jamieson, 1993), cigarette (Aguinis, Pierce, & Quigley, 1993) and marijuana (Aguinis, Pierce, & Quigley, 1995) smoking, and alcohol (Aguinis et al., 1995) consumption.

Despite the fact that researchers have used the BPL in over 60 published studies in social psychology and other disciplines, this technique has not been scrutinized from an ethical standpoint (see Ostrom, 1973, for an exception). Accordingly, we presented a debate between two different positions: One ("A") challenged the BPL based on ethical concerns, and the other ("B") responded to these challenges (Aguinis & Handelsman, 1997). One of the main goals of the Aguinis and Handelsman article was to initiate a debate among social psychologists regarding the virtually ignored ethical issues regarding the BPL. Sigall's

¹Correspondence concerning this article should be addressed to Herman Aguinis, Department of Psychology, University of Colorado at Denver, Campus Box 173, P.O. Box 173364, Denver, CO 80217-3364. e-mail: haguinis@castle.cudenver.edu. http://www.cudenver.edu/~haguinis.

(1997) comments on our article are flattering; we believe that our goal begins to be accomplished. We have indeed raised awareness and sparked a debate among social psychologists regarding ethical issues surrounding the use of the BPL.

The purpose of this article is to inform and supplement the logical debate by delineating a research agenda whose results will aid researchers and institutional review boards to make more informed decisions regarding whether it is ethical to use the BPL under specific conditions.

Is the BPL Different From Other Deceptive Techniques in Social Psychology?

In commenting on Aguinis and Handelsman (1997), Sigall (1997) asserted that one of the two dialogue participants "B" did not defend the BPL forcefully enough. More precisely, Sigall asserted that many methods in social psychology use deception and that the BPL does not represent a special case regarding the use of unethical procedures in social psychology.

In contrast to Sigall's (1997) categorical conclusion, we suggested that the ethics of using the BPL is a *controversial* issue and, therefore, presented a debate between "A" and "B" (Aguinis & Handelsman, 1997). In his article, Sigall chose to side with "B": He provided additional arguments to suggest that the BPL is not a uniquely deceptive methodology and, therefore, does not pose unique ethical dilemmas. In ours, however, we adopted a more cautious stance reflected in what we believe was a balanced debate between two likely positions to be adopted by social psychologists: One challenged the BPL based on ethical concerns, and the other responded to these challenges.

Our choice to present the issue of the ethics of the BPL as unresolved was guided by two types of considerations. First, there are logical arguments, which we described in our article, both in favor of and against the use of the BPL from an ethics standpoint. For instance, it can be argued that social psychologists routinely use deception in conducting research. However, the fact that deception may be commonplace in social psychology does not make the BPL (or any other deceptive technique) automatically justifiable. This is because there is a distinction between the construct of deception (i.e., intentional misrepresentation; Sigall, 1997) and the operationalizations of deception (e.g., Milgram's [1964] studies on obedience, BPL, confederates posing as research participants, verbally lying to research participants regarding the actual research objective). Sigall argued that each of several individual attributes of the BPL, such as revelations of sensitive personal information and giving participants explicit misinformation about the method used, are shared by other deceptive research techniques. However, the very combination of several attributes which makes the BPL particularly effective also raises important ethical questions that need

to be addressed in the distinctive context of BPL research. We should not be so quick to blur potentially important distinctions among the various operationalizations of deception. Each type of deceptive technique should be individually evaluated regarding potential ethical problems.

Second, at present, there are too many unanswered empirical questions regarding the potential costs of using the BPL to make well-informed recommendations regarding its use. Consequently, it is premature to recommend either in favor of or against the use of the BPL from an ethical standpoint. For example, in defending the use of the BPL, it can be argued that participants do not forgo the right to withdraw from the study. However, is this true? How many college sophomores would withdraw from a study if they know they will be deceived using the BPL? Would the number of withdrawals be higher, the same, or lower than the number of withdrawals in other studies in which milder forms of deception are used? We simply do not know.

Researchers considering using the BPL and institutional review boards evaluating BPL research need guidelines and recommendations regarding situations in which the implementation of a BPL procedure may not be appropriate. However, there has been no empirical research to address possible negative consequences of using the BPL. Accordingly, we next delineate a research agenda that will allow researchers and institutional review boards to make more informed decisions regarding the conditions under which the use of the BPL may or may not be ethically justified.

The Ethics of the BPL: A Research Agenda

From most deontological (duty-based) perspectives, lying to study participants is simply wrong and never ethically justified. From this perspective, the ethics of the BPL, and other deceptive techniques, rests on the outcome of philosophical and logical debates. However, from a utilitarian (consequencebased) perspective, empirical considerations are central to the determination of ethics. Stated differently, the potential detrimental consequences of using the BPL may be outweighed by the potential benefits of using the BPL. In such situations, using the BPL is ethically justified on the basis of a cost-benefit analysis. In order to conduct such an analysis, empirical evidence needs to be gathered regarding the benefits and costs of using the BPL.

Recent quantitative literature reviews indicate that using the BPL has some benefits because the BPL is effective at eliciting more veracious (i.e., valid) self reports of (a) cigarette smoking (Aguinis et al., 1993), and (b) opinions on a wide range of issues (e.g., racism, sexism, attraction; Roese & Jamieson, 1993). However, using the BPL does not enhance the validity of self-reported marijuana smoking and alcohol consumption (Aguinis et al., 1995). The BPL

Table 1

Some Questions to Be Addressed by a Research Agenda on the Potential Costs of Using the Bogus Pipeline (BPL) in Social Psychological Research

- Do participants experience stress, annoyance, embarrassment, or other psychological effects?
- Do participants lose confidence in the integrity of the investigator and of psychologists in general?
- Do participants evaluate the BPL as an ineffective, invalid, and unjustifiable technique?
- How do participants evaluate the efficacy of debriefing procedures in alleviating potential experimentally induced discomfort or distrust?
- How do participants react to debriefing procedures?
- How do participants evaluate the ethics and effectiveness of using the BPL procedure, compared to other methods, in various research settings and to measure various behaviors and opinions?

is more difficult to justify ethically when used in areas of research in which it has not been proven effective.

On the other hand, the potential costs of using the BPL need to be ascertained empirically. Then, the costs of using the BPL, if there are any, should be compared to the benefits (e.g., increased validity of self-reports). For example, are any damages done to the profession by using the BPL? What do study participants think about psychologists after having participated in a BPL experiment? Are such study participants less trusting of psychologists and, therefore, less likely to consult a psychologist at a later point in their lives? Table 1 summarizes research questions that need to be addressed regarding potential costs of using the BPL.

Research regarding the potential costs of using the BPL can be conducted using methods similar to those recently implemented by Fisher and Fyrberg (1994). Study participants (i.e., potential participants in actual BPL studies such as college students) would be given a summary of a published journal article in which the BPL was used. Several articles could be chosen, each representing one of the major areas of research in which the BPL is typically used: (a) prejudice, stereotyping, and race and ethnicity research (e.g., Sigall & Page, 1971); (b) theories of altruism and altruistic behavior (Kunda &

Schwartz, 1983); (c) self-reported use of alcohol, marijuana, and cigarettes (cf. Aguinis et al., 1993, 1995); (d) tests of hypotheses regarding interpersonal attraction theories (e.g., Jones & Wein, 1972); (e) tests of hypotheses regarding impression management, self-presentation, and cognitive dissonance theories (e.g., Gaes, Kalle, & Tedeschi, 1978); and (f) attitudes regarding persons with disabilities (e.g., Sigall & Page, 1972). Each summary would include the following information regarding each BPL study: purpose, participants, procedure, debriefing, and results and implications.

After reading the journal article summary, participants would be given a questionnaire including open-ended and Likert-type questions regarding the article they read. The questions would cover the following issues: (a) reactions to the purpose of the study (e.g., perceived importance and relevance of the topic investigated); (b) reactions to the experimental procedures (e.g., perceived effectiveness of the BPL manipulation); (c) reactions to the results (e.g., perceived importance and relevance of the results); (d) assessment of reactions of the actual participants in the BPL study (e.g., perceived degree of uncomfortableness, annoyance, and embarrassment after being debriefed and learning that the BPL is not a lie detector; willingness to participate in the study having known that it would include deception and the BPL); (e) assessment of costs and benefits of the study (e.g., perceived overall value of the study); and (f) the values they hold regarding social science research, deception, and various social policy issues.

Using the aforementioned methodology, study participants would not actually be participating in a BPL study. They would instead provide judgments on previously conducted BPL research. Thus, study participants would not be exposed to any unknown detrimental effects that the BPL may have.

Closing Comments

One of the main objectives of the Aguinis and Handelsman (1997) article was to raise awareness and initiate a debate among social psychologists regarding ethical issues surrounding the use of the BPL. We are extremely pleased with Sigall's (1997) comments because they indicate that our objective has already been partially accomplished. A debate has been initiated and, as a result, we are able to move forward in elucidating whether it is ethically justified to use the BPL. In the present article, we proposed to inform and supplement the philosophical debate by extending the issue to the empirical arena. Empirical evidence has been gathered regarding some of the benefits of using the BPL, but no evidence is available regarding potential costs. We suggested a research agenda and methodology to investigate potential costs of using the BPL. Results of such research will provide guidance for researchers

as well as institutional review boards regarding conditions under which the use of the BPL may or may not be ethically justified.

References

- Aguinis, H., & Handelsman, M. M. (1997). Ethical issues in the use of the bogus pipeline. Journal of Applied Social Psychology, 27, 557-573.
- Aguinis, H., Pierce, C. A., & Quigley, B. M. (1993). Conditions under which a bogus pipeline procedure enhances the validity of self-reported cigarette smoking: A meta-analytic review. Journal of Applied Social Psychology, **23**, 352-373.
- Aguinis, H., Pierce, C. A., & Quigley, B. M. (1995). Enhancing the validity of self-reported alcohol and marijuana consumption using a bogus pipeline procedure: A meta-analytic review. Basic and Applied Social Psychology, **16**, 515-527.
- Fisher, C. B., & Fyrberg, D. (1994). Participant partners: College students weigh the costs and benefits of deceptive research. American Psychologist. 49, 417-427.
- Gaes, G. G., Kalle, R. J., & Tedeschi, J. T. (1978). Impression management in the forced compliance situation: Two studies using the bogus pipeline. Journal of Experimental Social Psychology, 14, 493-510.
- Jones, E. E., & Sigall, H. (1971). The bogus pipeline: A new paradigm for measuring affect and attitude. Psychological Bulletin, 76, 349-364.
- Jones, E. E., & Wein, G. A. (1972). Attitude similarity, expectancy violation, and attraction. Journal of Experimental Social Psychology, 8, 222-235.
- Kunda, Z., & Schwartz, S. H. (1983). Undermining intrinsic moral motivation: External reward and self-presentation. Journal of Personality and Social Psychology, 76, 763-771.
- Milgram, S. (1964). Issues in the study of obedience: A reply to Baumrind. American Psychologist, 67, 371-378.
- Ostrom, T. M. (1973). The bogus pipeline: A new ignis fatuus? Psychological Bulletin, 79, 252-259.
- Roese, N. J., & Jamieson, D. W. (1993). Twenty years of bogus pipeline research: A critical review and meta-analysis. *Psychological Bulletin*, **114**, 363-375.
- Sigall, H. (1997). Ethical considerations in social psychological research: Is the bogus pipeline a special case? Journal of Applied Social Psychology, **27**, 574-581.
- Sigall, H., & Page, R. A. (1971). Current stereotypes: A little fading, a little faking. Journal of Personality and Social Psychology, 18, 247-255.
- Sigall, H., & Page, R. A. (1972). Reducing attenuation in the expression of interpersonal affect via the bogus pipeline. Sociometry, 35, 629-642.