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***Here is the full text of the section of the NAS polygraph report referring to questionable polygraph research studies:***

## **BIAS, CONFLICT OF INTEREST, AND UNSCIENTIFIC DECISION MAKING**

In the course of our study we have seen or heard numerous disturbing allegations about the way polygraph research decisions have been made, particularly in federal agencies that have supported this research. We have seen or heard reports of researchers being prohibited from presenting studies at professional society meetings (see, e.g., Honts, 1994); a report of a researcher being required to remove his name from a refereed journal article, apparently because the content displeased his employer (Furedy, 1993); a report of potentially inflammatory findings being suppressed and recalled from distribution; and various reports of researchers having been removed summarily from their duties or their positions, with reasons to believe that this might have been done because of the directions or results of their research. These reports are not ancient history, though they are not current either: most appear to have dated from the early 1990s.<sup>2</sup> We have not investigated these reports to determine their veracity-this was not our charge-but they appear to us to be sufficient in number and credibility to deserve mention. It is important that polygraph research be organized so as to minimize the possibility of such situations in the future.

We have also experienced difficulty in gaining access to material necessary to evaluate reports of polygraph research. We wrote to all federal agencies that use the polygraph for employee screening to request studies and other information necessary to conduct a scientific evaluation of polygraph validity, including both unclassified and classified information. In some ways, the agencies were highly responsive. We received large amounts of useful information, and we learned that the kinds of data we wanted on some topics are not collected by any of the agencies in the desired form. In other instances, though, we were left unsatisfied. Two agencies did not provide us with specific unclassified research reports that we requested.<sup>3</sup> Also, we were advised by officials from DOE and DoDPI that there was information relevant to our work, classified at the secret level, particularly with regard to polygraph countermeasures. In order to review such information, several committee members and staff obtained national security clearances at the secret level. We were subsequently told by officials of the Central Intelligence Agency and DoDPI that there were no completed studies of polygraph countermeasures at the secret level; we do not know whether there are any such studies at a higher level of classification. Accordingly, our analyses of research on countermeasures are based only on unclassified studies.

These experiences leave us with unresolved concerns about whether federal agencies sponsoring polygraph research have acted in ways that suppress or conceal research results or that drive out researchers whose results might have questioned the validity of current polygraph practice. If the agencies have done or are doing these things, the result would be to introduce a pro-polygraph bias into polygraph research in general, as well as

to raise doubts about whether it is advisable for reviewers to apply the usual practice of trusting in the accuracy and completeness of reports in the scientific literature. In addition, any review of the literature, including this one, would be subject to question on the grounds of bias in the entire body of polygraph research.

Such bias is possible because a large segment of polygraph research in the United States has been supported by a small number of agencies that depend on the polygraph in their counterintelligence work. The effect might be something like the "file-drawer effect" commonly noted in meta-analytic research (Rosenthal, 1979, 1980). The nature of the file-drawer problem is that studies that fail to find significant effects or associations are believed to be less likely to be published because journals are disinclined to publish studies that lack clear findings. Thus, they are not submitted for publication or are rejected, and the published literature is, in effect, incomplete. This effect biases the literature in the direction of appearing to show stronger relationships than would otherwise be evident. If research funding agencies are suppressing research, the effects would be similar, though for a different reason. Studies that call the validity of polygraph testing into question, whether by failing to find accurate detection or by finding that accuracy is not robust across the range of situations in which polygraph tests are used, would fail to appear in literature searches.

We have not investigated the various allegations, so we are not in a position to evaluate the extent to which the alleged activities may have biased the literature. In Chapter 5 we do compare the polygraph accuracy estimates that come from studies with different sources of funding as a way of shedding some light on the possible effect of bias on the research literature, and find little difference. However, the distinctions between funding sources of these studies were often blurred.

Issues of conflict of interest reflect a serious structural problem with polygraph research. For the most part, the scientists involved in this area and the agencies involved in sponsoring and funding this research have a vested interest in supporting particular sets of conclusions about the reliability and validity of the polygraph (Levey, 1988). For example, U.S. agencies charged with initiating and sponsoring polygraph research (e.g., the U.S. Department of Defense Polygraph Institute) are also charged with the mission of training polygraph examiners and developing new polygraph applications. The dual mission of acting as a sponsor for polygraph research and as a sponsor for polygraph practice creates an obvious conflict of interest. Any reasonable investigator would anticipate that certain research questions (e.g., those that question the theory or logic of the polygraph) or certain patterns of results (e.g., those that suggest limited validity or strong susceptibility to countermeasures) will be less welcome by such research sponsors than empirical demonstrations that the polygraph "works."

Because the great bulk of polygraph research has been funded by agencies that rely on the polygraph for law enforcement or counterintelligence purposes, there is a significant potential for bias and conflict of interest in polygraph research. **Serious allegations suggest that this potential has at some times been realized. This possibility raises warnings that the entire body of research literature may have a bias toward claims**

**of validity for the polygraph.** Using a crude classification method (see Chapter 5), we did not see systematic differences in outcomes of polygraph validation studies between those conducted at or funded by polygraph-related agencies and those with a greater presumed degree of independence. However, this issue remains a concern because of the insularity and close connections among polygraph researchers in government and academia, the associations between some prominent researchers and manufacturers of polygraph equipment, and the limited accessibility of field polygraph data to researchers independent of the organizations that conduct polygraph tests. The credibility of future polygraph research would be enhanced by efforts to insulate it from such real or perceived conflicts of interest (see Chapter 8).

Notes:

2. In recent years, the U.S. Department of Defense Polygraph Institute has been working to put polygraph research on more of a scientific footing by adopting a number of standard procedures for scientific quality control that can only serve to improve research management at the institute and that may already be having such an effect.

3. One of these agencies informed us that it could not provide the requested report in order to protect its sources and methods. The other agency informed us that it would handle our request under the Freedom of Information Act and advised us that its response would not be received until January 2003 at the earliest, well after the scheduled completion of our study. Both of these unclassified reports have been cited in the open literature.