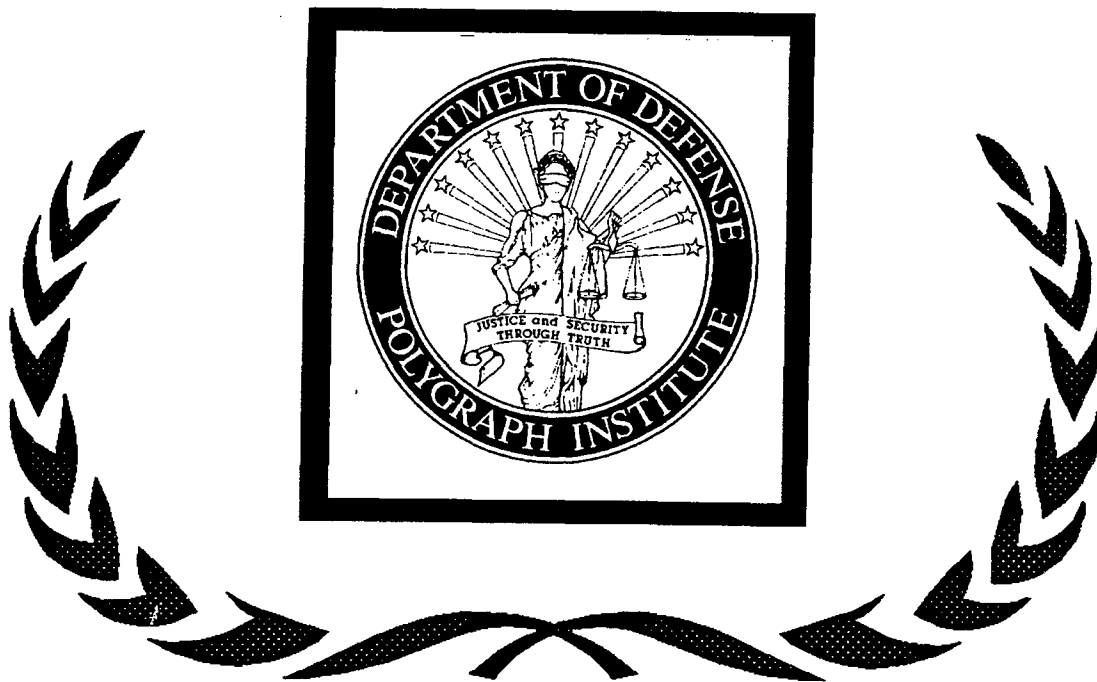


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**Psychophysiological Detection of Deception Accuracy Rates
obtained using the Test for Espionage and Sabotage**

Research Division Staff

June 1995

Department of Defense Polygraph Institute
Fort McClellan, Alabama 36205-5114
Telephone: 205-848-3803
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Report No. DoDPI94-R-0009

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June 1995

Department of Defense Polygraph Institute
Fort McClellan, Alabama 36205

Director's Foreword

In the early 1990's a new psychophysiological detection of deception (PDD) procedure was developed at the Department of Defense Polygraph Institute. The procedure, Test for Espionage and Sabotage (TES), was intended to be used and tested for use in the personnel security arena. This procedure departed from traditional screening procedures in several ways including a loosely scripted pretest, standardized question series, and a modified numerical chart evaluation technique. The most notable departure was that responses to the questions of interest were compared to responses examinees were instructed or directed to lie to. Previous PDD screening procedures have required that examinees be manipulated into lying to produce comparison responses. Use of directed lie comparison questions has made the TES much less aversive to administer because it is not necessary to manipulate examinees into lying or to probe into examinees personal history.

Results of a first laboratory study indicated that significantly more deceptive subjects were correctly detected using the PDD TES procedure than using two other screening procedures. This report describes a second study using the PDD TES procedure. The effort constitutes a second important step towards validating, and increasing acceptance of, the screening PDD examination.



Michael H. Capps
Director

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Abstract

Research Division Staff. Psychophysiological detection of deception accuracy rates obtained using the Test for Espionage and Sabotage (TES). June, 1995, Report No. DoDPI94-R-0009. Department of Defense Polygraph Institute, Ft. McClellan, AL 36205.--Previous research conducted by the Department of Defense Polygraph Institute (DoDPI) indicated that the decisions of examiners who administered the Test for Espionage and Sabotage (TES), were significantly more accurate at identifying programmed guilty examinees than were the decisions of examiners who administered either of two Counterintelligence Scope Polygraph (CSP) formats. The new format differs from previous security screening formats in that: (a) the number of issues being tested is reduced; (b) the number of repetitions of the questions used to calculate question scores is restricted to three; (c) between test stimulation is eliminated; (d) the order of questions within the question sequence cannot be altered; (e) each relevant question is compared to the same control questions; (f) the pretest is brief, more standardized and follows a logical sequence of information presentation; and (g) the Directed Lie Control (DLC) questions eliminate many of the problems associated with Probable Lie Control (PLC) questions. The procedures utilized during this study were identical to those in the previous study, but only the TES format was utilized. The replication was done in order to further validate the accuracies of the examiners' decisions in identifying programmed guilty and innocent examinees, when the TES format was administered. The data collected in this study were evaluated using the new criteria developed from the previous study. Ten certified examiners from the Office of the Secretary of the Air Force conducted 88 examinations. The examiners had been trained to administer the TES and had been utilizing the TES when conducting security examinations. Ninety-eight percent of the innocent examinees and 83.3% of the programmed guilty examinees were correctly identified.

Key words: TES, security screening, DLC, directed lie control, detection of deception, espionage, polygraph, PDD

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The accuracies of decisions for determining deception in a mock screening situation, using three psychophysiological detection of deception (PDD) formats have been compared (Research Division Staff, 1995). Two of the formats were counterintelligence scope polygraph (CSP) formats; one in which probable lie control (PLC) questions are asked and the other in which directed lie control (DLC) questions are asked. The third format was the test for espionage and sabotage (TES) in which: (a) the number of issues being tested is reduced; (b) the number of repetitions of the questions used to calculate question scores is restricted to three; (c) between test stimulation is eliminated; (d) the order of questions within the question sequence is constant; (e) each relevant question is compared to the same control questions; (f) the pretest is brief, more standardized and follows a logical sequence of information presentation; and (g) DLC questions are asked in place of the standard PLC questions.

The decisions of the examiners who administered the TES format were significantly more accurate (83.3%) at identifying the programmed guilty (PG) examinees than were the decisions of the examiners who administered either the CSP-PLC (55.6%) or the CSP-DLC (58.6%) format. There were no significant differences among the accuracies of the examiners' decisions at identifying the innocent examinees.

This study replicated the procedures utilized in the previous study, but only the TES format was administered. In addition, the data were evaluated using a scoring method that was developed using the data collected during the previous study (Research Division Staff, 1995).

Methods

Examinees

Eighty-eight examinees were recruited by a local employment agency under contract to the Department of Defense Polygraph Institute and were paid \$30.00 for their participation. Individuals who met the following criteria were excluded from participation: (a) less than 19 or more than 60 years of age, (b) not in good health, (c) pregnant, or (d) did not have the equivalent of a high school diploma. Thirty-four male ($M = 27.2$, $SD = 9.7$) and 54 female ($M = 27.8$, $SD = 10.2$) examinees were scheduled for testing. Thirty-three examinees were PG.

Examiners

Ten certified examiners (9 males and 1 female) were selected by and from the Office of the Secretary of the Air Force (OSAF)

to conduct the examinations. Selection of the examiners was determined by the agencies. Although examiner selection was not random (selection criteria generally involve availability and experience), the examiners were considered representative of the CSP examiner population. The examiners had been trained in the administration of the TES and, for one month, had been conducting government examinations using the format. Examiners conducted two practice examinations before conducting an examination for the project. Each examiner completed two 4-hour examinations (morning and afternoon) on four days and one 4-hour examination on one day for a total of nine examinations each. The examiners were not given any information regarding the base rates. They did not receive feedback regarding the accuracy of their decisions until the end of the study, and they were blind as to whether the examinee was PG.

Apparatus

The examiners used standard field polygraph instruments manufactured by either Lafayette or Stoelting. Standard respiratory, electrodermal, and cardiovascular responses were recorded. The electrodermal component was operated in the manual mode. The examinations were conducted individually in large (6.2m x 6.2m) rooms in a building located on Fort McClellan. The scenarios used to program examinees guilty were enacted in another building located approximately two miles from the examination building. There were no video recording devices nor one-way mirrors in the examination rooms. The examinations were audio taped.

Scenarios

The PG examinees enacted one of four mock scenarios (Appendices A through D). Each scenario was representative of one of the four relevant questions. The "espionage" scenario required one examinee to steal a classified document from an office and to give the document to a second examinee. The second examinee received the document and placed it inside a vehicle located in the parking lot. Examinees who enacted the "sabotage" scenario, stole either a classified document or a classified computer disk. The examinee either put the document through a paper shredder or with a pair of scissors, cut the disk into pieces. An examinee who enacted the "unauthorized contact" scenario was asked to meet with a German agent who was sitting in a car in the parking lot. The agent requested that the examinee obtain some classified information to be given to the agent at a later time. During the enactment of the "unauthorized disclosure" scenario, the scenario setter was called out of his office midway through briefing the examinee regarding some classified computer information. A third person, who appeared to be fixing a window screen, entered the office and engaged the examinee in conversation regarding what the examinee had been

told. All PG examinees received \$100.00 as payment for their participation in the "crime." In addition, all PG examinees wrote a statement indicating that "for the purposes of this project" they had engaged in espionage, sabotage, unauthorized contact, or unauthorized disclosure, depending on which scenario they enacted.

Scoring and Decision Criteria

Scoring procedures developed during a previous study (Research Division Staff, 1995) were used to evaluate the data. If the original decision was conclusive--significant responding (SR) or no significant responding (NSR)--then the decision was final. If a conclusive decision could not be made then the physiological responses to 1R1 and 1R2 were reevaluated by comparing them to the physiological responses to 1C2 only. If, after the rescore, a conclusive decision was not possible, then the test was considered inconclusive (INC).

Procedures

During each session, ten examinees were given information regarding the research project, their participation (Appendix E), and the PDD examination (Appendix F). If they agreed to participate, they signed a form (Appendix G) indicating their consent to participate in the research project. The examinees were taken in groups of two either to another building to be programmed guilty, or to the testing site. The PG examinees received information regarding the purpose of the scenario and signed an additional consent form (Appendix H) indicating their agreement to participate in the scenario. After they enacted one of the scenarios, they were transported to the testing site. The transportation of the examinees to the testing site was timed so the examiners were not able to discern which examinees were innocent and which were programmed guilty.

The examinations were conducted according to the TES administration guidelines (Appendix I) provided to the examiners. Each examiner provided a numeric score and a decision (SR, INC, NSR) based on the numeric score, for each test. An NSR decision concluded the subtest. If the decision was INC, the examiner briefly discussed the questions with the examinee to determine if the examinee understood the questions. Then, the test was administered again. If, based on the data from the second test, the examiner's decision was INC, then the decision for that subtest was INC. When the examiner rendered an SR decision, the examiner confronted the examinee with the results.

Programmed guilty examinees were instructed to confess their guilt if they were confronted by the examiner, but not to reveal any details of their activities. Once a PG examinee confessed,

the examination was concluded. However, an innocent examinee who responded significantly to the relevant questions--a false positive (FP) decision--was questioned by the examiner to determine if there was a legitimate, "real-world" explanation for the examinee's physiological responses to the relevant questions. The examiner recorded any information provided by the examinee and concluded the examination. Two examiners, otherwise not involved with the study, independently evaluated the information obtained from the examinees who received FP decisions. If the two examiners agreed that the information was significant enough to justify the examinee's physiological responding--a false positive decision with justification (FPWJ)--then that examinee's data were not included in the original data analyses.

If the decision for the first subtest was either NSR or INC, the examiner conducted the second subtest. If, however, the decision for the first subtest was SR, then the second subtest was not conducted. All of the examinees tested during a session were debriefed simultaneously (Appendix P). Examinees who participated in mock scenarios returned the \$100.00.

Data reduction and analyses

The data from 82 examinees were included in the analyses. The remaining six examinees were excluded for the following reasons: One PG examinee confessed to the examiner prior to the examination, one PG examinee was unable to understand the instructions of the scenario setter, two examinations were incomplete, and two FPWJ examinees were excluded. Appendix Q contains the information obtained from all of the FP decisions and the decisions whether to keep or exclude the examinees.

If the scoring based on the physiological responding during an initial test resulted in an inconclusive decision and a second test was conducted, unless otherwise indicated, only the result of the second test was included in the analyses. The percentages of innocent examinees and PG examinees correctly identified were calculated. Chi-square tests were conducted to determine if the numbers of correct decisions in identifying innocent and PG examinees were significantly different from chance. The significance criterion was set at .05.

Results

Excluding the one inconclusive decision, 98% of the innocent examinees and 83.3% of the PG examinees were correctly identified. The number of correct decisions, inconclusive decisions and errors made by the examiners are presented in Table 1. Both the number of innocent examinees correctly identified

[χ^2 (1, N = 51) = 47.08, p < .001] and the number of PG examinees correctly identified [χ^2 (1, N = 30) = 13.33, p < .001] were significantly greater than chance. When the two FPWJ examinees are included in the analysis of the accuracy of decisions identifying innocent examinees, 94.3% of the innocent examinees were correctly identified. Including the FPWJs, the number of innocent examinees correctly identified was significantly greater than chance [χ^2 (1, N = 53) = 41.68, p < .001]. There were a total of five (10%) innocent examinees and five (17%) PG examinees for whom the initial test results were inconclusive. After retesting, the results remained inconclusive for only one innocent examinee (1.9%).

Table 1
Number of Correct Decisions, Inconclusive (INC)
Decisions, and Errors Made by the Examiners in
Identifying Programmed Guilty and Innocent
Examinees

Role	Decisions		
	Correct	INC	Errors
Innocent	50*	1	1
Programmed Guilty	25*	0	5

Note. Analyses tested whether each distribution was significantly different from chance. * p < .001.

Discussion

Excluding the one inconclusive decision, 98% of the innocent examinees and 83.3% of the PG examinees were correctly identified. These results mirror the findings of the previous study, with respect to the accuracy of decisions obtained using the TES format. Although many questions remain regarding the generalizability of the TES format to field situations, the TES format appears to have greater validity than the format currently used by the federal government.

Further testing is required to answer some of the questions raised by the current and the previous studies (Research Division Staff, 1995): (a) does the caveat "during this project" affect the accuracies of the decisions identifying innocent and PG examinees, (b) does the effect of the question caveat impact on the generalizability of the format to field situations, (c) does

the reduced number of relevant issues addressed during the test contribute to the increase in the accuracy of identifying PG examinees, and (d) will the results generalize when different issues are addressed and different relevant questions are utilized.

Reference

Department of Defense Polygraph Institute Research Division Staff
(1995). A Comparison of Psychophysiological Detection of
Deception Accuracy Rates Obtained Using the
Counterintelligence Scope Polygraph (CSP) and the Test for
Espionage and Sabotage(TES) Question Formats.
Fort McClellan, AL: Author.

Appendix A

Espionage Scenario

Good morning, my name is Special Agent _____ and I am employed by _____. The project that you will be taking part in today will involve each of you performing specific acts that, without question, would be legally defined as *engaging in espionage*, insofar as this project is concerned.

In order to successfully complete your mission today and be fully eligible for payment, you must accomplish two things. First, you must work closely with me and precisely do the things that I tell you to do. Second, and of utmost importance, you must avoid being identified, either through talking with *anyone* other than me (or people who I designate), or through the PDD examination which will be administered to you, as a person who either participated in or as one who possesses knowledge about the things you will do. These things are absolutely essential to the success of this project.

Your participation today will involve *committing, assisting one another, and having specific knowledge of espionage activity* during this project. Shortly, I will be telling you what it is I want you to do. As a result of this briefing you will, as far as this project is concerned, have been *approached to engage in espionage*.

After you perform what it is that I want you to do, I will ask you to sign a statement that will serve as proof that you *offered to engage in espionage* during this project and you should understand that you have been *recruited for the specific purpose of engaging in espionage* during this project.

I will tell exactly what it is I want you to do, how to avoid getting caught (because that is the last thing you want to do). The discussions I have with you will entail your receiving *training for espionage activity during this project*. I, and those who I specifically designate, will be the only persons who will know exactly what you are to do. You know my name (repeat here) and where you can locate me; therefore, I am your *contact for espionage purposes*.

If you understand everything that I have told you so far, we can continue. Do you have any questions? Do you agree to participate and follow my instructions carefully? If not please advise me now so that a suitable replacement can be obtained.

PROJECT BRIEFING

This entire project is concerned with methods which are employed to identify people who might be involved in espionage activities. Because it deals with sensitive matters, it was necessary to classify all materials concerned with the project. Espionage involves obtaining that classified material. That is why I need you. I am too well known and my feelings about the project are common knowledge. If I were seen in the area, the people I am going to send you to see would likely suspect something and make the job of retrieving the material that much more difficult. The plan I will outline for you involves both of you and you both will know what it is the other is to do. This is what I want you to do: "Subject B will remain here with me until I direct otherwise. Subject A will go to Building _____, enter and locate the office of _____. You may have to look around, or ask someone in order to accomplish this task, but try to appear natural. If you do this no one will suspect you are up to anything. It will be natural to "feel" as though everyone knows what you are up to, but unless you say something, they actually have no idea. This is the project secretary's office. I want you to engage Ms. _____, in a brief conversation, asking her assistance in locating Mr. _____, another person located within that building, well away from her office. Because she generally does this, she will likely offer you a seat while she tries to find him for you." "Mr. _____'s office is located near the back of the building, so she will be gone about 3-4 minutes. As soon as she is out of sight, you are to open the top right hand desk drawer and you will see a folder clearly marked PROJECT OSAFMI--CLASSIFIED. I know this because, over a period of time, I have observed her activities regarding this material. Inside the folder, you will find a computer disk marked OSAFMI PROJECT. Contained on this computer disk is classified and highly sensitive information pertaining to this project. The disk also is marked CLASSIFIED. You are to remove this disk from the folder and hide it somewhere on your person so that it cannot be seen. Put this computer disk into the folder in its place (Give examinee a duplicate disk) leave the folder inside the desk drawer, giving the appearance that nothing has been disturbed, just switch the disks. As quickly as possible, (BUT DO NOT RUN) exit the office and depart the building. DO NOT WAIT FOR THE SECRETARY TO RETURN.

After you leave the building, DO NOT DO ANYTHING TO DRAW ATTENTION TO YOURSELF. It is important that you not get caught with the disk on your person. Therefore, I want you to go immediately to the grandstand in the parking lot next to Building _____. Once there, walk up to the top row of seats on the end

farthest away from the buildings and sit down. On the floor, you will see a (bag or other suitable container). Place the disk into the container. Place the container back on the floor of the grandstand where you found it. Remain in your seat for a few more minutes. You may then leave the grandstand and return to this building. On your return to the building, stay on the hard surface road. Do not cut through any grassy areas or between buildings. To do so would attract attention to yourself. On your return to this building, you will see Subject B standing near Building _____. You are to signal to him/her that you have made the drop of the classified material by crossing to the other side of the street and bending over as if picking up a piece of litter. Once you have given this signal, you may return to this building where I will be waiting for you. I then will give you further instructions.

SUBJECT B's BRIEFING

Subject B, you must position yourself so that (a) you do not draw unwarranted attention to yourself and (b) that you can carefully watch for Subject A's signal. Remember he/she will walk across the street and bend down as if picking up a piece of litter. This will be your signal that the "drop" has been made, that the area appears to be safe that you may proceed to make the required pickup. You are to proceed to the grandstand carefully. Use care to ensure that you are not being followed. Use a circuitous route if necessary, but it is essential that the pickup be made within a few minutes of receiving the signal. Stay on the hard surface road and do not cut between buildings. Carefully ensure that when you approach the grandstand you have not attracted attention to yourself. If all appears to you to be secure, take a seat on the top row of seats, farthest away from the buildings. You should see the container we spoke of earlier. Pick it up and remove the disk from it. Place the disk in the pre-addressed disk mailer that you have been provided and hide it on your body (on/in your clothing). After a few minutes, you may depart the grandstand, and return to this building, taking the same route that you took when approaching the grandstand. In this way, should anyone be observing you, it will appear as if you were simply taking a walk. You will return to this building, where you will surrender the disk to me and I will give you further instructions. Insofar as espionage during this project is concerned, you then will have done the same things that I outlined for Subject A (Repeat if deemed necessary).

PRE-EXAMINATION BRIEFING

You both have performed the tasks that I outlined. Now I want to be sure you are clear regarding your activity here today. You have been contacted, recruited and tasked to commit espionage during this project. Furthermore, you have engaged in espionage and have been paid for this activity (give each examinee \$100.00 and have them put in a pocket). I would like you to acknowledge, on this card, that you have done these things. (Have them write on the card, sign the card and put it in a pocket with the money).

Next you will be asked to submit to a PDD examination. The purpose of this examination is to see if the examiner can successfully identify you as a person who either performed or has knowledge of the espionage which was committed during this project. At some point during the examination, you may be asked questions about the following: (a) whether you have been approached to engage in espionage against this project; (b) whether you have offered to engage in espionage against this project; (c) whether you have been contacted by anyone for espionage activity against this project; (d) whether you have received any training for espionage activity against this project; (e) whether you have received any specific tasking for espionage activity against this project; (f) whether you have any specific contacts for espionage purposes against this project; (g) whether you have performed any specific activity for espionage activity against this project and (h) whether you have received any compensation for espionage activity against this project. I do not know the specific questions that you will be asked, but these are the topical areas that the questions will cover. You are to deny completely participating in any of these acts, but do so in a convincing manner. It is essential that you understand that you have, in fact, done all the things I just outlined. But it is equally important that you avoid being identified by the polygraph examiner as being deceptive. Each of you will have the statement that you signed acknowledging your involvement in espionage and the \$100.00 on your person when you go to take this examination.

The examinee will be instructed that if after the examination has been administered the examiner states that the results "clearly indicate deception," the examinee is to admit

only that he has been deceptive and give the examiner the signed card only (examinee keeps the money in pocket until the debriefing). The examinee then will be instructed to wait in the room until someone comes to take him to his examination.

Appendix B

Sabotage Scenario

Today I would like you to commit sabotage. You are going to destroy some very critical information regarding this project. destruction of material or information is considered sabotage. For the purposes of this project, you have been contacted for sabotage purposes. I have approached you to engage in sabotage during this project, I am recruiting you to engage in sabotage and I am going to task you to perform an act of sabotage. In addition, I am going to pay you \$100.00 to perform this act of sabotage.

I want you to go to room _____. The project director's secretary will be at her desk. Tell her you need to see the director. She will ask you to have a seat while she goes to get him. As soon as she leaves the room, open her top right hand desk drawer. She keeps the computer disks in that drawer. Find the one labeled "OSAFMI Project. Take the disk and hide it on you. Close the drawer and leave the office (don't wait for the secretary to come back. Don't let anyone see the disk. Bring the disk back to me.

When the examinee returns with the disk:

This disk contains the classified/sensitive operational information for this project. Who is scheduled when and where, etc. Of course we can reconstruct the information, but it will take a little time. I want you to destroy this disk. (give the examinee scissors and have them cut the disk into pieces).

Now you have actually committed an act of sabotage during this project. You have destroyed a computer disk with project information on it. Here is \$100.00. Put the money in a pocket (preferably not a purse). Now I would like you to fill out this card--"I (examinee's name) understand that for the purposes of this project, I have been contacted, recruited and tasked to engage in sabotage, In addition, I have engaged in sabotage and have received \$100.00 for my activity." Examinee should sign the card and put it in his pocket along with the money.

Among other things, the examiner is going to ask you if you have engaged in any act of sabotage during this project. This would include being approached to engage in sabotage--offering to engage in sabotage--being contacted to engage in sabotage--being recruited to engage in sabotage--being tasked to engage in sabotage--or receiving any money for engaging in sabotage. Have

you done any of these things? (hopefully, examinee answers yes--if not reinforce). Your job of course is to lie to the examiner --do not let the examiner know that you have engaged in any of these activities. We need to see if the PDD format can identify you as being deceptive.

The examinee will be instructed that if after the examination has been administered the examiner states that the results "clearly indicate deception," the examinee is to admit only that he has been deceptive and give the examiner the signed card only (examinee keeps the money in pocket until the debriefing). The examinee then will be instructed to wait in the room until someone comes to take him to his examination.

A variation of this scenario will be used, in which the examinees will steal a document from the desk drawer. When the examinees return, the scenario setter will have them run the document through a paper shredder.

Appendix C

Unauthorized Contact Scenario

Today we would like you to be a spy. Since this project involves national security, enemies of the U.S. would like to get information regarding the project and they undoubtedly would pay for it. In fact, I have arranged a secret contact with a foreign national today. However, since I must take care of other matters, I want you to go to the secret meeting. This is a foreign national, who works for a foreign group and who is interested in obtaining information regarding our entire detection of deception program, but specifically information regarding this new project. I need to know for what information this person is looking. You need to find out what he wants so that I can get it for him. While you're with him, get him to give you payment up front. This is too dangerous to not get something right away. I think \$200.00 would be a good place to start. Now, you need to go out into the parking lot and look for a (describe car) car. It should be over in the back corner of the lot (describe lot location). Don't let anyone see you get in the car. His code words will be "Are you looking for the duty roster?" You must answer "No, I'm looking for a book." After you've made contact, find out what he wants, when and where I am to meet him next, and get some money. Any questions?

When examinee gets in the car, the foreign national will be speaking on a car phone in a foreign language. He will end the phone conversation, still in the foreign language, with "we'll talk about this later." In case, examinee speaks the language, the foreigner will be talking about getting information about the project. After he ends the phone conversation, he will speak to the examinee in the foreign language, saying "are you looking for the duty roster"? When the examinee looks puzzled or doesn't respond, he apologizes in english and repeats the question. Examinee will respond "No, I'm looking for a book." Foreigner will then introduce himself as Mr. Smith and state "I was expecting Mr. Taylor. Did Taylor send you?" Foreign national should steer the conversation to the topic. He wants Taylor to get information regarding the accuracy of the new format for guilty individuals, the specific relevant questions being used, the type of format being used, where the new format will first be used in the field and when it will first be used. Examinee should request \$200.00 which the foreigner will provide.

Foreigner also will give the examinee the information about when and where he will meet Taylor next and what the new identification codes will be. Foreigner tells examinee not to be seen going back to the room.

Taylor gets the information and the money from the examinee. Then tells the examinee "For the purposes of this project, you have had unauthorized contact with a foreign national. You have just come from a secret meeting with the foreigner, during which time he requested highly classified information. This individual is a foreign national working for a foreign government in an attempt to subvert our strongest security system, the PDD program. Among other things, your examiner will be asking you whether or not you have had any secret or clandestine meetings with a foreign national that you don't want him to know about. Have you?"

Hopefully, the examinee will say Yes. If he doesn't then Taylor must reiterate the above. Then Taylor asks what the examinee will tell the examiner--hopefully they will say that they are going to lie. Then Taylor will repeat the procedure with the issue of anyone having requested sensitive or classified information. It should be reinforced continually, that the purpose of this project is to beat this examiner. It's the examinee's job to not let the examiner discover that he has engaged in these particular behaviors. Finally, Taylor will give the examinee \$100.00 and instruct him to put it in a pocket (on the person-not in a purse). Then Taylor will have the examinee fill out and sign a card indicating that for the purposes of this project, the examinee understands that he has had a secret, clandestine meeting with a foreign national, who, in fact, is requesting classified information regarding the project. Furthermore, he (the examinee) has received \$100.00 for his participation in this unauthorized contact. After the examinee signs the card, he will be instructed to put it in a pocket.

In addition, the examinee will be instructed that if after the examination has been administered the examiner states that the results "clearly indicate deception," the examinee is to admit only that he has been deceptive and give the examiner the signed card only (examinee keeps the money in pocket until the debriefing). The examinee then will be instructed to wait in the room until someone comes to take him to his examination.

Appendix D

Unauthorized Disclosure Scenario

Since this project involves national security, everything we do here today is highly sensitive information and should not be discussed with anyone. Enemies of the U.S. would like to get information regarding this project and would probably pay for it. For simplicity, this project is referred to as TES, and if this study is successful the format will be employed by the government within the next three months. Most DoD agencies will use the format and we expect it to be considerably more accurate than the present formats. At this point someone interrupts Taylor to tell him he has a phone call down the hall. He excuses himself, telling examinee to wait there for him. One minute later another individual enters the room and engages the examinee in a conversation. Some tactics might include--I'm looking for Mr. Tyler. Is this the TAS project? Well, what project is this? Maybe I had the wrong name. What are you going to be doing?--The idea is to engage the examinee in a conversation in which he divulges as much information as possible. After a few minutes, indicate it is not the same project and individual leaves. A few minutes later Taylor returns. Apologizes for the interruption and then as if it were a given, reminds the examinee that he should not discuss anything they have said, with anyone. Hopefully, at this point the examinee should mention the other person he was talking to. If not, then Taylor should ask him directly--you didn't talk with anyone while I was on the phone, did you? Then get the examinee to explain what information he divulged. Explain to examinee that for the purposes of this project he has provided classified information to an unauthorized person. It is important that the PDD examiner does not find out that this disclosure has occurred. Offer \$100.00 for examinee not to tell the examiner and instruct him to put it in a pocket (on the person--not in a purse). Among other things, your examiner will be asking you whether during this project you have provided classified material to an unauthorized person. Have you?" Hopefully, the examinee will say "Yes." If he doesn't then Taylor must reiterate the above. Then Taylor should ask what the examinee will tell the examiner--hopefully they will say that they are going to lie and say no. It should be reinforced continually, that the purpose of this project is to beat the examiner. It's the examinee's job to not let the examiner discover that he has engaged in these particular behaviors. Then Taylor will have the examinee fill out and sign a card indicating that for the purposes of this project, the examinee understands that he has provided sensitive/classified information regarding the project to an unauthorized person. Furthermore, he (the examinee) has received \$100.00 for his participation in this

unauthorized disclosure. After the examinee signs the card, he will be instructed to put it in a pocket.

In addition, the examinee will be instructed that if after the examination has been administered the examiner states that the results "clearly indicate deception," the examinee is to admit only that he has been deceptive and give the examiner the signed card only (examinee keeps the money in pocket until the debriefing). The examinee then will be instructed to wait in the room until someone comes to take him to his examination.

Appendix E

INFORMATION FORM

1. **PROJECT TITLE:** OSAF/MI SCREENING STUDY. To be conducted by the Department of Defense Polygraph Institute. Fort McClellan, Alabama.
2. **PRINCIPLE INVESTIGATORS:** Sheila Reed, Ph. D. and Earl Taylor.
3. **DISCUSSION:** Congress has directed the Department of Defense to investigate the use of psychophysiological detection of deception (PDD) formats for national security purposes. This project is involved with developing and validating a new PDD format to be used to deter espionage and sabotage against the United States and to catch those individuals who have engaged in espionage or sabotage against the United States. Since there are very few actual spies, most of the people who will undergo this examination will be innocent of any wrong doing. Therefore, we want to make sure that this test correctly identifies innocent individuals as innocent. Since it is highly unlikely that you have engaged in espionage or sabotage against the United States, we would like to give you the PDD examination. We are confident that true spies will respond physiologically when they lie on a PDD examination. We need to be sure that innocent individuals, such as yourselves, do not exhibit excessive amounts of nervous responding when they are given the examination. All we will be asking you to do is to undergo a PDD examination in which the examiner will ask you questions regarding your involvement in espionage and sabotage activities. All you need to do is be honest. Occasionally an innocent individual may be distracted during an examination and therefore show physiological responses during the examination. If this occurs, the examiner will discuss with you what you were thinking about during the test, in order to determine why you responded. The entire procedure will take between 2 and 2 1/2 hours.
4. **YOUR RIGHTS:** You have the right to ask any questions about any aspect of your participation in the study. If any problems arise at any time in conjunction with your involvement in the study, or if you have been injured in any way as a result of the study, you should contact the Director of the Defense Polygraph Institute. In the event that you do have questions or any of the above has occurred please contact Dr. William Yankee, 848-3803.

5. **DISCOMFORTS:** Some people find it difficult to sit still for several minutes at a time during the PDD examination, while psychophysiological measurements are being made from the body. A cardio cuff on your arm will be inflated periodically. Some people find the inflated cardio cuff moderately uncomfortable. However, the cuff is usually inflated for less than five 5 minutes at a time. In addition, your respiration and sweat gland activity (measured from the fingers) also will be recorded.

6. **RISKS:** There are no known risks involved in this project.

7. **CONFIDENTIALITY OF RECORDS:** During the PDD examination you will be asked a series of questions. All the information you tell the examiner is privileged information which will not be revealed to anyone not directly involved in the research. All the polygraph charts, score sheets, interview forms, examiner work sheets, and related documents associated with your examination will be used for research purposes only. Your name, or your participation in the study will not be released to anyone not directly involved in the research. This includes any admissions of a criminal nature. No information that you provide to the examiner will leave the examination room.

8. **VOLUNTARY PARTICIPATION:** Your participation in this project is completely voluntary. If you decide to participate in this project, you may discontinue at any time. Should you decide not to participate please inform Earl Taylor or Sheila Reed, or if you decide to stop during the PDD examination itself, inform the examiner with you and you will be released. According to the agreement with the employment agency, if you do not complete the study you will not be paid.

9. **BENEFITS:** The main benefit is the satisfaction of knowing you contributed to a scientific study, important to national security. We need your cooperation in order to determine the accuracy of this new format. An additional benefit is learning what a PDD examination is like. If you ever have to take a PDD examination, having had prior experience will be a benefit as you will know what to expect.

Appendix F

Explanation of Examination

The purpose of the examination is to determine whether you have engaged in any spy activities during this project. Since you have not engaged in any such activities all you need to do is to answer the examiner's questions truthfully. The examiner will ask you a little background information (you may refuse to answer questions regarding your personal background) and some medical questions to make sure you are fit for a PDD examination. The examiner will explain to you the instrument and all of the procedures. The examiner will be asking you a number of questions, which he will review with you. Just be honest. The examiner then will attach the various sensors and conduct the PDD examination. All you need to do is to pay attention, listen to and follow the examiner's instructions and answer all the questions truthfully. Are there any questions?

Appendix G

Research Consent Form

This form is affected by the Privacy Act of 1974.

1. **AUTHORITY:** 10 USC 3012, 44 USC 3101 and 10 USC 1071--1087.
 2. **PRINCIPLE PURPOSE:** To document voluntary participation in a Defense Polygraph Institute Research Program.
 3. **ROUTINE USES:** Your name will be used for identifying and locating research documents and will be available only to individuals associated with the research project.
 4. **MANDATORY OR VOLUNTARY DISCLOSURE:** Your signature is necessary if you want to be included in this research. If you do not sign, you will not be able to serve in this study and you will not be paid.
-

I, _____, being at least 19 years old, do hereby volunteer to participate in a research study entitled "OSAF/MI Screening Study," being conducted by the Department of Defense Polygraph Institute (DoDPI) at Fort McClellan, under the direction of Dr. Sheila Reed and Special Agent Earl Taylor.

1. _____ I understand that I am participating in a research project which will utilize psychophysiological detection of deception (PDD) formats.
2. _____ I understand that as a part of this study, I will be taking a PDD examination, during which I will be asked to sit still for several minutes at a time, while psychophysiological measurements are being recorded from my body.
3. _____ I understand that there are no known dangers or risks arising as the result of my participation in this study.
4. _____ The nature of my participation, the purpose of the investigation and the methods by which it is to be conducted, have been explained to me. I have been given the opportunity to ask questions concerning this study, and any such question has been answered to my satisfaction.
5. _____ I understand that I may terminate my involvement in this project at any time and for any reason. However, I will not be paid unless I complete the project.
6. _____ I understand that the PDD examination will be audio taped. The audio tapes will be used for research purposes only and will be erased within one year after the end of the study.

7. _____ I understand that if I have any complaints I may contact
Dr. William Yankee at 848--3803.

Signature

Date

Print Your name Here

Witness

Appendix H

Scenario Consent Form

This form is affected by the Privacy Act of 1974.

1. **AUTHORITY:** 10 USC 3012, 44 USC 3101 and 10 USC 1071-1087.
 2. **PRINCIPLE PURPOSE:** To document voluntary participation in a Defense Polygraph Institute Research Program.
 3. **ROUTINE USES:** Your name will be used for identifying and locating research documents and will be available only to individuals associated with the research project.
 4. **MANDATORY OR VOLUNTARY DISCLOSURE:** Your signature is necessary if you want to be included in this research. If you do not sign, you will not be able to serve in this study and you will not be paid.
-

Although it is true that we need to test this PDD format on individuals whom we know are being honest, we also need to test this format on individuals we know are being deceptive. Just as it is critical to clear an innocent individual it is equally important to identify someone who is being deceptive. Therefore, we would like you to participate in a mock spy situation, and then lie to your examiner regarding your involvement. We need to determine whether or not this new format can identify you as being deceptive regarding your activities here today. Your job will be to convince the examiner that you have not been involved in any spy activities during this project.

I understand that I am being asked to participate in a mock spy situation and in the interest of national security, I am being asked to lie regarding my participation. I understand that it is in the best interest of this project for me to lie convincingly. To intentionally not lie convincingly would sabotage the outcome of this mission. I voluntarily agree to participate in this aspect of this project.

Signature

Date

Witness

Appendix J

PDD Examination Consent Form

CONSENT TO INTERVIEW WITH POLYGRAPH

PLACE:

DATE:

TIME:

Before we begin the PDD examination you must understand your rights.

YOUR RIGHTS

YOU HAVE THE RIGHT TO REFUSE TO TAKE THE EXAMINATION.

IF YOU AGREE TO TAKE THE EXAMINATION, YOU HAVE THE RIGHT TO STOP THE EXAMINATION AT ANY TIME.

IF YOU AGREE TO TAKE THE EXAMINATION, YOU HAVE THE RIGHT TO REFUSE TO ANSWER ANY INDIVIDUAL QUESTIONS.

WAIVER AND CONSENT

I HAVE READ THIS STATEMENT OF MY RIGHTS AND I UNDERSTAND WHAT MY RIGHTS ARE. I VOLUNTARILY AGREE TO BE EXAMINED BY MEANS OF THE POLYGRAPH DURING THIS INTERVIEW. I UNDERSTAND AND KNOW WHAT I AM DOING. NO THREATS OR PROMISES HAVE BEEN USED AGAINST ME TO OBTAIN MY CONSENT TO ADMINISTER THIS EXAMINATION.

I CERTIFY THAT I AM PRESENTLY IN GOOD HEALTH AND THAT I AM NOT BEING TREATED BY A PHYSICIAN, PSYCHIATRIST, OR PSYCHOLOGIST FOR ANY PHYSICAL OR MENTAL DISORDER (EXCEPT AS LISTED BELOW). I FURTHER DECLARE THAT I AM NOT NOW BEING, NOR HAVE EVER BEEN, TREATED FOR SERIOUS DISEASES OF THE HEART, LUNGS, OR CENTRAL NERVOUS SYSTEM (EXCEPT AS LISTED BELOW).

I CERTIFY THAT I HAVE PROVIDED THE EXAMINER WITH THE FOLLOWING EXCEPTIONS:

I KNOW OF NO MEDICAL REASON WHY I SHOULD NOT UNDERGO A PSYCHOPHYSIOLOGICAL DETECTION OF DECEPTION EXAMINATION AT THIS TIME.

EXAMINEE

DATE

WITNESS

Appendix I

TES Format

Relevant questions (R):

During this project, have you had unauthorized contact with a foreign national?
Have you committed an act of espionage during this project?
Have you committed an act of sabotage during this project?
During this project, have you provided classified material to an unauthorized person?

Control questions (C): The following are the only acceptable directed lies.

Did you ever take any government (company) supplies for your personal use?
Did you ever violate a traffic (fishing, hunting, boating) law?
Did you ever say something derogatory about another person behind their back?
Did you ever violate a software copyright law?
Did you ever say something that you later regretted?
Did you ever lie to a previous supervisor about anything?
Did you ever borrow anything and forget to return it?
Did you ever lie to a co-worker about anything at all?
Did you ever say anything in anger that you later regretted?
Did you ever brag about yourself to impress others?

"Did you ever" may be substituted with "Have you ever"

Sacrifice relevant question (SR):

Regarding the project security questions, do you intend to answer truthfully?

Irrelevant questions (I): The following are the only acceptable irrelevant questions

Are you now in Alabama?
Is today _____?
Do you sometimes drink water?
Are you now on Ft McClellan?
Are you sometimes called _____?

Sequence: With this format two examinations will be conducted, each consisting of one test, with 2 relevants asked 3 times each and 2 directed lies asked 2 times each. If distortions or other artifacts preclude a conclusive diagnosis based on the three askings a second test will be conducted up to the point that there are three scorable askings. The sequence will be: I1 I2 SR 1C1 1R1 1R2 1C2 2R1 2R2 2C1 3R1 3R2 2C2

For the first examination R1 will be the sabotage question and R2 will be the espionage question. On the second examination R1 will be the unauthorized disclosure question and R2 will be the unauthorized contact question. It is the examiner's discretion whether or not to use different or the same directed lie controls during the second examination or during extended testing (due to INC call) within an examination.

Pretest:

Give a general overview of the procedures--

Read the consent form (Appendix J) to the examinee and have them sign.

Complete biographical/medical form (Appendix K) in order to assess suitability.

Explain how the instrument works and F³--this should be VERY brief--see the recommended example in Appendix L.

Attach components.

Run standard known solution numbers test--using rationale presented in Appendix M--DO NOT show the test to the examinee--sell the stim.

Examinee remains in exam chair with components attached during the question review.

Question review--"I am going to review the questions which I will be asking you on the examination. There are two types of questions; security questions pertaining to your activities during this project and diagnostic questions. I will explain each type of question and I will review each question in detail. The first questions will be the security questions pertaining to your activities during this project."

Review SR and pretest relevants according to the information in Appendix N.

Pretest ONLY the relevants for the first examination-- Sabotage and Espionage.

Introduce directed lie controls according to example in Appendix M.

Introduce Irrelevants according to example in Appendix M.

Explain that questions will be asked multiple times and not in order reviewed.

Intest:

Conduct the test--

Electrodermal channel should be operated in manual unless, after all other procedures have been tried, it would result in uninterpretable tests.

Diagnostic phase:

Utilize the 7-point scoring system.

The first asking of the relevants (1R1 and 1R2) will be compared against the stronger of the first asking of either the first control (1C1) or the second control (1C2)

The second asking of the relevants (2R1 and 2R2) will be compared to the stronger of the first asking of C2 (1C2) or the second asking of C1 (2C1).

The third asking of the relevants (3R1 and 3R2) will be compared against the stronger of the second asking of C1 (2C1) or the second asking of C2 (2C2).

If a fourth asking occurred on a separate test--score only the relevant which was previously distorted--against the stronger of the two controls.

The three scorings will be totaled to yield a sub-score for R1 and a sub-score for R2.

The R1 and R2 sub-scores will be combined to yield a total test score. In addition, the examiners will rescore the

first askings of the relevants (1R1 and 1R2) comparing them to the first asking of the second control (1C2) only.

If the sub-score for either question is -3 or less, or the total test sub-score is -4 or less then the opinion will be SR.

If the total test sub-score is +4 or greater and both questions' sub-scores are positive (no zeros) then the opinion is NSR.

If these conditions are not met then the 2nd asking, 3rd asking and alternate scoring of the first asking will be totaled. The decision criteria will be applied to these new scores.

If no decision can be made at this point the examinee will be retested.

Post Test phase:

If the opinion is NSR then the second examination will be conducted. If the opinion is SR, then the examiner is to state to the examinee specifically that "the results of the examination, clearly indicate deception." If the examinee was programmed guilty, then the examinee will immediately present the examiner with a signed card indicating the examinee's guilty participation." The \$100.00 that the examinee will have obtained during the scenario, will be collected during the time of debriefing. The examiner will not question the examinee further and will not let the examinee volunteer any information. If the examinee does not present the signed card, then the examinee was NOT programmed guilty. Therefore, the examiner must question the examinee to obtain information which would explain the SR opinion. Any obtained information should be documented. A blank piece of paper is included in the folder for this purpose.

In either event, the second test will NOT be given.

Extended testing will be required only in the event of an INC opinion. In the event of INC results, it is permissible to discuss with the examinee what they were thinking about during the examination. Alternate wording of the relevant questions may be used. Acceptable alternate relevant questions are contained in Appendix O. Also, at the discretion of the examiner, the controls may be changed. An additional test will be conducted.

Second examination:

Review the two relevant questions for the second examination according to Appendix N. The same controls may be used or one or two others may be reviewed and substituted. The examinee will remain in the examination chair with the components attached during the review of the questions.

Conduct the test.--If the opinion is INC then extended testing will be conducted as described above. With an NSR opinion, the examinee will be thanked, and returned to wait for their debriefing and transportation. An SR opinion will be handled as above.

Appendix K

Biographical/Medical Form

This form is affected by the Privacy Act of 1974.

1. **AUTHORITY:** 10 USC 3012, 44 USC 3101 and 10 USC 1071-1087.
2. **PRINCIPLE PURPOSE:** To document voluntary participation in a Defense Polygraph Institute Research Program.
3. **ROUTINE USES:** Your name will be used for identifying and locating research documents and will be available only to individuals associated with the research project.
4. **MANDATORY OR VOLUNTARY DISCLOSURE:** Your signature is necessary if you want to be included in this research. If you do not sign, you will not be able to serve in this study and you will not be paid.

Name: _____ SS number _____

Occupation: _____ Gender: M F

Age: _____ Previous PDD Examination Yes No

Hours of sleep last night _____

Have you used alcohol, nicotine or caffeine within past 24 hours

How is your general health:

Are you presently taking any medications Yes No

If yes, please identify type, dosage and time last taken:

Appendix L

Instrument/F³ Explanation

You may be a little nervous, especially if you have not had a PDD examination before. This is expected and is quite normal. To help put you at ease, I will explain what the instrument is and how it works. The polygraph is a diagnostic tool that is used to determine if a person is telling the truth. It simply records physiological changes that take place in your body when you are asked questions. Today, changes in your respiration, sweat gland activity and blood pressure will be recorded. Please notice the two rubber tubes on the desk. One will be placed across your chest and the other will be placed around your abdominal area. They will be used to record your breathing. There are two metal finger plates next to the rubber tubes. These plates will be attached to two of your fingers and will record your sweat gland activity. Finally, on the desk is a blood pressure cuff. It is the same type of cuff a doctor uses to measure blood pressure. It will be placed on your arm and will monitor changes in your cardiovascular activity.

These physiological changes are a result of an automatic response system in your body. It is a response system over which you have no control. For example, visualize yourself walking down a dark alley late at night. Suddenly you hear a loud noise. You will instantaneously decide either to remain where you are and investigate the source of the noise, or to flee the area, sensing danger to your well being. Regardless of the choice you make, your body automatically adjusts itself to meet the needs of the situation; your heart may beat faster, your breathing may change and you may break out in a cold sweat.

When you were growing up, if you are like most people, you were raised to know the difference between right and wrong. Quite probably, all of the adults you came in contact with--your parents, grandparents, relatives, teachers, church officials--taught you that lying, cheating, and stealing were wrong. Ever since you were a young child, you have been programmed to know that lying is wrong. Think about the first time you lied and you got caught. Remember how your body felt during that confrontation. Your heart may have been racing or you may have been sweating. However, the responses were automatic; your body adjusted to the stress of the situation.

People are not always 100% honest. Sometimes it is kinder and more socially acceptable to lie than to be honest--such as telling someone you like their clothes when you really think the clothes are awful. It is important for you to understand that

even though a lie might be socially acceptable or only a small lie, or a lie by omission, your body still responds. The recording on the polygraph will show only the physiological responses. It cannot know what kind of lie you are telling. Therefore, it is extremely important that you be totally honest to those questions concerning this project.

Appendix M

Directed Lie Rationale

Rationale for stim test (use the word acquaintance or demonstration test when discussing this with the examinee).

"I'm now going to demonstrate the physiological responses we have been discussing. This test is intended to give you the opportunity to become accustomed to the recording components and to give me the opportunity to adjust the instrument to you before proceeding to the actual test. In addition, this test will demonstrate to me that you are capable of responding and that your body reacts when you knowingly and willfully lie."

Rationale for directed lies.

"I am now going to discuss the second type of question, the diagnostic questions. As I explained earlier, when you lie your body responds and I will be able to see it; just as it did during the demonstration. If, however, you were given a test and I saw no responses to any of the questions it would look like your were telling the truth. For various reasons (sick, tired, using some medication) some people lose their capability to respond. Consequently, I must ask some questions that demonstrate you continue to have the capability to respond when you are lying and that you do not respond when you are telling the truth."

First I will review those questions used to determine if you are capable of responding when you lie. I already know the answer to these questions because we all have done these things at one time or another. When I ask the question I want you to think of an occasion when you did this--don't tell me about it, just think of a specific time. Then lie to me and say NO."

Review directed lies--

Before each question preface it with--"we have all (e.g. violated traffic laws)--you have haven't you (they should answer yes)--of course. Now think of a specific incident (don't tell me). When I ask you 'Did you ever violate a traffic law' I want you to lie to me and say NO. When I ask you this question on the test--I want you to think of that incident when you lie to me."

Rationale and review of irrelevants

"The final diagnostic questions you may hear are ones you will answer truthfully so that I can see how you are responding when you tell the truth. It will be obvious that you are telling the truth. The questions are...."

Appendix N

Pretest Relevant Questions

Have you committed an act of espionage during this project?

Normally refers to the intentional, unauthorized release of classified information/material to a foreign government or power, with the intent to or reason to believe that the information/material would injure the government or give an advantage to the foreign power. For purposes of this project, espionage would be the improper copying, removal, transportation or release of project information or materials. Engaging in espionage would include being contacted by someone or contacting someone for the purposes of providing information about the project. Whether you have personal involvement or were simply assisting someone else or if you have knowledge of an unreported act of espionage--that would be considered espionage during this project. Espionage during this project would include acts that were of your own initiative or at the request of someone else (a superior or employer). If you have been approached, if you were recruited, if you were trained or were involved in the planning of, or if you were tasked to engage in an act of espionage during this project, you have engaged in espionage during this project. Your motivations might have been money or ideology or loyalty (following directions) and you may or may not have received any compensation, monetary or otherwise. If you have been involved in any of these activities, you have engaged in espionage during this project.

Have you committed an act of sabotage during this project?

Normally refers to a deliberate act of destroying, damaging, contaminating or altering anything used in the nation's defense with the intent of impeding the nation's defense capabilities. For the purposes of this project, sabotage would be any intentional act of slowing down, damaging, or destruction of property, operations or personnel related to this project. This could be accomplished by the actual destruction or damaging of equipment or information or through the interference with information systems such as faulty computer programming or introducing a computer virus. Engaging in sabotage would include being contacted by someone or contacting someone for the purposes of sabotage during this project. Whether you had personal involvement or were simply assisting someone else or if you have knowledge of an unreported act of sabotage--that would be considered sabotage during this project. Sabotage during this

project would include acts that were of your own initiative or at the request of someone else (a superior or employer). If you have been approached, if you were recruited, if you were trained or were involved in the planning of, or if you were tasked to engage in an act of sabotage during this project, you have engaged in sabotage during this project. Your motivations might have been money or ideology or loyalty (following directions) and you may or may not have received any compensation, monetary or otherwise. If you have been involved in any of these activities, you have engaged in sabotage during this project.

During this project, have you had unauthorized contact with a foreign national?

Normally refers to secret or clandestine contact with a non-U.S. citizen or someone who represents a foreign government, power, group or organization. For the purposes of this study, I want to know if you have had any secretive meetings with a foreign individual that you don't want me to know about, that you are trying to hide from me.

A foreign national is someone who identified themselves as a non-U.S. citizen or as representing a foreign government or group.

Have you had contact with anyone who has requested sensitive or classified information about this project. Contact includes all means of communication--personal, phone, computer link-up, radio or written communication. This contact would be considered unauthorized if you are intentionally trying to keep me from knowing about it.

Any unreported visits, a close or continuing contact with a foreigner, contact that might result in an adverse impact on the project, any type of clandestine, secret or hidden meetings with a foreigner would be considered unauthorized contact.

During this project, have you provided classified material to an unauthorized person?

Normally refers to the disclosure, by any means, of any sensitive or classified material to any unauthorized person. For the purposes of this project, any attempt on your part to provide or to sell any information or material relevant to this project to anyone would be considered providing sensitive or classified material to an unauthorized person. The disclosure could have been intentional, deliberate disclosure done with forethought

with the intent to get personal or monetary gain, or to try to hinder the project, or it could have been accidental and unintentional. An unauthorized person is anyone that was not a part of this project.

Appendix O

Alternate Relevant Questions

The following are acceptable alternate relevant questions.

Espionage:

Have you spied during this project?

Have you committed espionage during this project?

Sabotage:

Have you deliberately damaged (destroyed) material associated with this project?

Unauthorized contact:

During this project, have you spoken with a foreigner?

During this project, have you had unauthorized contact with a foreigner?

Unauthorized disclosure:

During this project, have you given (released) classified material to anyone?

Appendix P

Debriefing

On behalf of the entire project staff, I would like to take the opportunity to thank you for your participation in this project. Your participation here today was more important than you may realize. Depending on the results of this study, we may be able to provide the Department of Defense with a new PDD examination which will significantly change current procedures; making security examinations simpler and hopefully more accurate.

For those of you who participated in our simulated spy scenario, we would like to assure you that you in no way violated any rules or laws. The activities were strictly for the purpose of deceiving the examiner. Please return the \$100.00 to Mr. Taylor and he will sign this form below, indicating that he received the money. You should keep this form for a few days, in case there are any questions.

For those of you who did not participate in our simulated spy scenario, your role was equally important. No detection of deception format is useful if it improperly identifies truthful people as deceptive.

We hope you enjoyed your participation. We hope you were not made uncomfortable in any way. If you have any questions or concerns please feel free to bring them to the attention of Mr. Taylor, Dr. Sheila Reed or to the attention of Dr. William Yankee, Director of the Institute.

We ask that you please do not discuss what you did here today, with anyone. Many people from the community will be participating in this study, perhaps relatives or friends of yours. It is very important that they do not have any prior information regarding the project. Knowledge of the study might seriously damage the results of this project. Thank you for your understanding and cooperation.

I, Earl Taylor, received \$100.00 from:

Earl Taylor

Date

Appendix Q

False Positive Decisions

S# - Subject number
R1 - did rater 1 believe there was sufficient
justification for the physiological responses
R2 - did rater 2 believe there was sufficient
justification for the physiological responses
Decision - was the examination omitted from the study

S#	R1	R2	Decision
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45	yes	yes	exclude
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Subjects level of understanding was questionable--however, he believed he would sabotage the test if he moved around, so was concerned regarding the sabotage question.

77	keep
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The examiner did not obtain any information regarding this examinee's responses.

94	yes	yes	exclude
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Thought about a girl from China, whom she had known for years. *(Question was reworded (OTWYTM) and re-administered-result was NSR.)

*This information was NOT provide to the two examiners who determined whether or not the information was sufficient to expect physiological responding.