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INTERROGATION

By

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In my opinion, criminal interrogation consists of seven major phases. They are: Case Analysis, Introduction, Obtaining Background Information from the Suspect, Non-Accusatory Interrogation, Transition from Non-Accusatory Interrogation, Accusatory Interrogation and Closure.

In this paper, I have set forth a step-by-step interrogation procedure which encompasses all of the phases. I hope that what I have written will benefit the inexperienced and experienced interrogator.

CASE ANALYSIS

Every interrogation begins with Case Analysis. A study of the case file will indicate the probability of guilt, possible motive, and in some instances, the personality structure of the perpetrator. Case Analysis will reveal if the act was premeditated; requiring a degree of bravado and cunning, or a case of opportunity, in which the suspect said to himself, "I can do this and get away with it."

Case Analysis provides the polygraph examiner, who through experience, becomes a master detective, the probative value of the evidence in the case. Sometimes, the evidence is irrefutable, as with fingerprints or ballistics. This type of evidence gives the interrogator an air of confidence that he doesn't have if the evidence is subject to personal interpretation as with witness identification or handwriting analysis.

One learns through experience that the toughest cases are those where the evidence is circumstantial in nature. Confronted only by circumstantial evidence, the guilty person can craft a plausible argument in his defense, thereby creating that nagging element of doubt in the mind of the interrogator.

Masculine pronouns are used to refer to subjects or interrogators of either gender.

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Case Analysis will sometimes indicate whether or not the suspect is the common denominator in several crimes. Case Analysis will suggest the existence of a mitigating factor which could be used in potential interrogation arguments to help the suspect rationalize his act and make him more prone to tell the truth. Case Analysis will suggest whether or not "baiting questions" can be asked. For example, "Is there any reason why your fingerprints might be on the money box?"

The first major decision you make in any interrogation session is whether to begin with Accusatory or Non-Accusatory Interrogation. Case Analysis will dictate your choice. Normally you begin with Non-Accusatory Interrogation. However, in a non-polygraph situation where guilt is obvious, it is imperative that you begin immediately with Accusatory Interrogation by pointing out all of the evidence indicating the suspect's guilt. This is the only time you break with normal procedure. There are several reasons for launching into Accusatory Interrogation:

By allowing a suspect to tell his fabricated story he becomes committed to his lies.

Immediate Accusatory Interrogation creates resignation in the suspect, wherein he is more apt to go "belly-up" because he realizes he just can't lie around all the evidence.

The interrogator's forceful approach is psychologically devastating to the suspect because he realizes the futility of attempting to change the interrogator's mind.

By repeatedly hearing the evidence against him stated, the suspect realizes that he will be convicted even if he doesn't confess. This triggers the self-interest factor, wherein the suspect believes that if he is cooperative and tells the truth, he is going to get a lesser penalty.

When you allow an obviously guilty person to debate, you give him hope. A suspect has to get the impression that you are not going to take "no" for an answer.

The whole thrust of immediate Accusatory Interrogation is to point out that there is no question as to his guilt. There is only the question as to whether or not he has the fortitude to tell the truth.

In those cases where the evidence is overwhelming, our job is easy. Anybody can be a good interrogator when he knows the truth, because there is a high correlation between the amount of evidence you have, and the chance you have of getting a confession. When you have a lot of evidence you don't need any imagination. All you have to do is to keep restating the evidence you have against the suspect. The hard part of this business comes when you don't know the truth, when guilt or innocence is not obvious. Faced with this situation, subjective analysis becomes an art form dependent upon astute questioning.

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In a case where guilt or innocence is not obvious, I would like to suggest a definite procedure. This procedure will enable you to form a more definitive opinion, and thus reach the stage of Accusatory Interrogation if necessary.

INTRODUCTION

The first step after Case Analysis is the Introduction where you tell the suspect the purpose of the interview. If necessary, the *Miranda* Warning should be given in a low-key, business-like manner. You should preface the *Miranda* Warning with the statement that you haven't drawn any final conclusions and that you would like to hear the suspect's side of the story.

Allow the suspect to give a brief synopsis of the story, then cut him off. You now have some insight into what position the suspect is going to take. His brief story provides a format for your questions. After you have stopped the suspect, you tell him that he will have plenty of time to talk, but that you have a procedure to follow. State that you want to get some general background information before discussing his story in detail. This statement does two things; it puts you in immediate command of the interview and establishes, dominance, and secondly; it frustrates the lying suspect with a rehearsed story because he didn't immediately dupe the interrogator. The threat of having his story analyzed in detail creates anxiety in the suspect and his defensiveness will become more apparent.

BACKGROUND INFORMATION

At this point, the subject's general background information should be obtained. This provides a thumbnail sketch of the suspect. There is an old saying, "When you know a person's past, you know their future." Taking the biographical data accomplishes several things:

For the first time you have something upon which to make a subjective analysis of the suspect.

You may see a basic predisposition or propensity to commit the act in question.

You can evaluate the suspect's degree of cooperation in answering questions. You will see the presence or absence of hostility and/or evasiveness.

Thoroughness in this category of questioning eliminates potential embarrassment in court under cross examination for failing to obtain pertinent information about the subject's background. For example: Psychological treatment, substance abuse, alcoholism, or illness such as epilepsy.

As you discuss his general background you provide an opportunity or area where you invite the suspect to lie. If the suspect lies about an arrest record, job

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dismissal, drug-use, etc. and is proven to have lied by subsequent investigation, that lie becomes a major wedge in breaking down the suspect's story. You can't be too thorough when taking a person's general background. I once broke a major murder case because I was the only person to ask the suspect if he had ever had any psychiatric treatment. The suspect told me that he voluntarily admitted himself to a mental institution in Georgia because he had an uncontrollable urge to kill. This admission laid the groundwork for the suspect's subsequent confession to a murder he committed in Miami.

Each category you cover is a potential gold mine for posttest interrogational arguments. For example, in larceny cases, when you cover the suspect's financial obligations, motive sometimes becomes obvious. In this category of questions you are trying to discover an expenditure for which the suspect cannot explain the source of his funds. You have to trick the suspect into admitting recent purchases and paid bills. You set up the bluff by telling the suspect that you conducted a background check on him before he came to your office. You then ask questions about recent purchases and paid bills as if you already know the answers.

When you discuss the suspect's job history, you set up a potential posttest argument by asking the suspect if he has ever been fired for stealing, accused of stealing on a job, or questioned about stealing. After the polygraph test, you point out to the suspect that you know for a fact, that he lied during the pretest interview. You then tell him that you did a background check on him and that you know that he lied to one of those questions.

This bluff hardly ever backfires. The odds are that even if the suspect is innocent of any wrongdoing on a previous job, if he worked handling money or small merchandise, he probably has been at least questioned about mysterious losses. If the suspect admits during this posttest that he was, in fact, accused of stealing, or questioned about it, this admission can become a wedge to obtain a confession in the case at hand. The admission will at least indicate that the subject is the common denominator in different thefts on different jobs.

Be careful with sales people, because a lot of them lie for a living. They are generally extroverts and very articulate. They love selling themselves and duping interrogators.

When you question a suspect about any personal problems such as divorce, separation, illness, losses, etc., you set up one of the best potential arguments I know. That argument is, "It wasn't your character that caused you to steal, it was your personal problems."

When you question a suspect about an arrest record, if there is one, you have the best test for credibility. You should ask:

"Were you guilty of the crime?"

"Did you plead guilty?"

"Did you confess to the crime?"

Polygraph, <u>24(4)(1995)</u>.

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If the suspect, despite revealing numerous arrests, always protests his innocence, it is obvious that you have a basically anti-social, anti-authority person who projects guilt on society and hardly ever makes an admission against interest. You may not get a confession, but at least you know who you're dealing with.

In fraud arson cases, you generally only get one shot at the suspect, so you have to be thorough in your questioning to establish possible motive. Ask background questions such as:

"Has your business been up for sale?"

"Are you behind in your mortgage or rent payments?"

"Have you ever filed for bankruptcy?"

"Have you ever been sued by any creditor?"

"Have you made any prior insurance claims?"

"Have you recently increased your insurance coverage?"

"Do you have Business Interruption Insurance?"

"Did you remove any official records from your office prior to the fire?"

"Did you remove any personal items from your office prior to the fire?"

"Did you order any repair work on any appliance or machine in your building prior to the fire?"

"When was the last time you purchased any accelerant such as gasoline, kerosene, etc.?"

"Did you move a large amount of merchandise in or out of your building during the several days prior to the fire?"

When you question suspects about their general educational background, don't assume because they only have a 6th grade education, that they are stupid. They could have a Ph.D. in social intelligence, or what police officers call "street smarts." Remember, the liar is the smartest person in the room because he knows the truth and you don't. While taking the general background information, I generally make my initial assessment as to whether or not the suspect is tough-minded enough to have committed the act in question. These people generally radiate arrogance.

When discussing a suspect's personal habits, such as his alcohol or illegal drug use, look for his use of the defense mechanism of disassociation to handle the normal vicissitudes of life. The continuing practice of self-deception makes him very convincing when lying to others.

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When motive is not obvious, it is because you didn't dig deeply enough into the suspect's background. sometimes, even when you know the suspect is guilt, you are befuddled by why he committed the crime. Many times, there just isn't any obvious reason.

I have learned through experience in criminal cases, "that something never comes from nothing." There is always a catalyst; a real or imagined grievance; a personality defect, or a history of aberrant behavior, which if known at the time of your interview, will make the suspect's motive obvious. For this reason, don't discount the importance of a thorough inquiry regarding the suspect's life history.

After you have obtained the suspect's general background, you are ready to question the suspect regarding the specifics of the case.

NON-ACCUSATORY INTERROGATION

There are several factors that affect Non-Accusatory Interrogation:

THE ENVIRONMENT

The ideal environment is your own office where you have your own support system. The worst environment for interrogation is the suspect's house. Your confession rate drops over 30% when you leave your office to conduct polygraph tests at a job site.

PHYSICAL POSITIONING BETWEEN SUSPECT AND INTERROGATOR

I like to follow the saying that, "When you're near somebody physically, you are close to them psychologically." For this reason, the only thing that separates me from a suspect is the corner of a desk.

LEVEL OF INQUIRY

It makes a difference whether the suspect is questioned by his sister or by a polygraph examiner. The higher the level of authority the interrogator represents the greater the level of inquiry, hence the more you enhance the possibility of manifestations of guilt.

THE ATTITUDE OF THE INTERROGATOR

In my opinion, nothing affects questioning more than the attitude and behavior of an interrogator. I will now describe several types of interrogators whose attitude and behavior preclude successful interrogation:

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The interrogator who fears that the suspect will not confess and generally finds some excuse not to interrogate.

The interrogator who is reluctant to ask the hard questions, who lets the suspect do all the talking and who sits there like a human tape recorder. The danger of this behavior is that suspects construe the interrogator's reticence as a weakness and will not confess to someone they do not respect.

The interrogator who identifies with the suspect and wants to believe him, who has the mindset implicit in the saying, "There but for the grace of God, go I."

The interrogator who is fearful of creating an acrimonious relationship with the suspect and will never say to the suspect, "You are lying."

The interrogator who becomes married to a particular theory, who loses objectivity and who is reluctant to change his mind even when confronted with evidence that clearly refutes his theory. He assumes everyone is guilty so that he won't risk being fooled by a truly guilty person. This attitude or bias is responsible for most miscarriages of justice.

The interrogator who lacks imagination or doesn't know what to say to the suspect is the type that lets a lot of people off the hook. Good interrogators know that it is not always incumbent upon them to get a confession. It is however, necessary that they always take a detailed statement from the suspect. Years ago I interrogated an electrician who got his wife drunk, hooked some electrical wire to her, and electrocuted her. He never confessed, but I had taken a lengthy, detailed, statement from him which was read aloud. His answers to my questions were so absurd, that the jury had no doubt that he deliberately killed his wife and convicted him of premeditated murder.

WHAT DOES THE SUSPECT HAVE TO DESCRIBE?

The more detail he has to relate, the better your chances are for a definitive evaluation of what the subject has to say. A single question requiring a simple "yes" or "no" answer provides the interrogator with little or no information upon which to base an analysis of truth or deception.

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HOW MUCH TIME HAS THE SUSPECT HAD TO PREPARE HIS LIES?

A suspect knows the loopholes in his story. Given sufficient time, he will fabricate a persuasive argument as a substitute for the truth. He learns to simulate innocence by repeating a lie which then replaces the memory of what actually occurred.

How that you have an understanding of the factors which can undermine questioning, I would like to suggest some general rules to follow when questioning suspects in all types of cases.

HOW TO QUESTION IN THE NON-ACCUSATORY PHASE

I believe that there are categories of questions that can be asked in all types of cases. When a person has to describe his behavior and a sequence of events, astute questioning should reveal whether or not the person is lying. The secret is to be thorough in the questioning. In essence, what you have to do is to go below the level of the suspect's defense by presenting him with questions which he did not anticipate. The whole purpose of asking questions is to force one of these two things to happen:

The guilty person will respond verbally in a nonsensical manner which makes his lies evident.

A behavioral response is elicited that makes guilt obvious; the subject becomes hostile, evasive, or non-responsive to the inquiry.

To question, you must have one or more theories about how the crime was committed in mind. The theories act as a framework and suggest potential questions to ask. The thrust of your questioning is to prove or disprove a particular theory. When that theory is no longer operative, you move to a new theory. You begin to formulate your theories based on Case Analysis. Questioning takes imagination. You have to imagine how the crime was committed. You can't have theories without imagination.

When you question, you attempt to link the person to the crime by:

Evidence - How does the suspect explain the evidence against him?

Motive - Does it exist, and if so, is it strong enough to prompt the crime?

Character - Is there a basic predisposition to commit the act in question?

Opportunity to commit the act - What is the alibi?

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Behavior - Was the suspect's behavior at the time of the crime indicative of guilt, or was it just coincidental?

TEN RULES TO FOLLOW WHILE QUESTIONING

Rule One: Always Question Chronologically because:

It allows the story to unfold before your mind's eye. You must project yourself into the scene and imagine the story unfolding before you as if you were watching a video tape. As you see the story unfold, each sequence of events described by the suspect suggests the next potential question.

It enhances the memory recall of the innocent person.

With the guilty, it allows you to judge what they emphasize and what they gloss over. The guilty always emphasize the safe areas and avoid a detailed description of their behavior at the time of the crime. Simply put, in which part of the story is the suspect comfortable?

Questioning chronologically pressures the guilty suspect by forcing him to create lies to unexpected questions. The innocent suspect simply employs memory recall to answer the questions.

Astute questioning relaxes the innocent suspect because your thoroughness gives him confidence that you are going to establish the truth.

Rule Two: The First Category of Questions Should Always Pertain to the Catalyst.

What triggered the act? Every overt act has an antecedent condition. It is your job to figure out what potentially could have motivated the act. In this category of questions you see the possible motivation for the act for the first time. During this phase formulate questions to obtain information to answer the following in your own mind:

Did anything abnormal happen?

Was there a break in the routine?

What was the suspect's mood at the time?

Were there any personal problems, arguments, etc.?

Was the suspect suffering from any emotional turmoil?

Polygraph, <u>24(4)(1995)</u>.

Was there use of alcohol or drugs?

Why was the suspect there, and what was the suspect doing?

Was the suspect's behavior abnormal in any way? Was it different from past behavior?

Was the suspect the common denominator in similar instances?

Rule Three: Ask Memory Questions.

Remember, fear contaminates memory. Constantly force the subject to be more explicit. Ask questions to ascertain if any incidental situations occurred that might lend credibility to the suspect's story. Generally, when innocent people relate a story they relate an incidental situation that occurred around the time of the crime but which has no connection to it. If that incidental situation can later be verified, it lends credibility to the suspect's story. For example, "At the time of the shooting, a man was walking his dog, and he must have been deaf because he never turned around."

If there are voids in the suspect's story, don't fill in the voids to make his story more logical. Don't suggest possibilities or logical explanations which never occurred to the suspect, you will enhance his lies. The voids in the suspect's story can be used as a wedge in Accusatory Interrogation.

Rule Four: Ask Verification Questions.

"Who witnessed the act?"

"Who shared the experience?"

"Who was the first person you told about what occurred?"

"What were your feelings at the time, anger, fear, bewilderment?" "What was your reaction to the situation?" (Evaluate whether the suspect's proported emotions were normal for the situation. Were they what you would expect from a normal human being?)

"Have you figured out what happened?" "What do you think happened?" (Was normal curiosity satisfied? An innocent person will genuinely try to figure out what happened. By contrast, a guilty person doesn't have to, he already knows the truth.)

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Rule Five: Ask Questions That Test the Logic of the Story.

Does the suspect's story conform to the laws of probability? Did the suspect's behavior conform to what a normal human being would have done in a similar situation? Is the suspect's description of what occurred probable in light of the sequence of events stated?

Ask questions regarding alternative options:

"Why did you chose 'A' rather than 'B'?" "Since no one put a gun to your head, why did you do anything at all?"

Be suspicious of a suspect who defends his actions too strongly when it is obvious that an alternative would have been better. The innocent will generally say, "Yeah, I guess you're right Mr. Holmes, I should have done something else."

Always ask why a person did something in each sequence of events. It is more difficult to lie about why he did something than about what he did.

Ask questions so that the suspect suggests possible explanations for what occurred. Many times what a person doesn't say is more important than what the person does say. What he omits is probably the underlying basis for what actually occurred. The guilty are reluctant to speculate about things that threaten them.

Rule Six: Ask Questions to Determine the Nature of the Story.

Guilty people keep their story tight because by doing so there is less ground to defend.

Most people lead from strength. When they tell a story, they feature the area where they are comfortable. Ask questions to see if the suspect is featuring peripheral matters over what the suspect was actually doing at the time of the crime.

Guilty people answer questions in a superficial manner. A good interrogator never accepts anything at face value. In his questioning, the interrogator should explore a superficial answer to reveal that it lacks substance.

Ask questions to see if the suspect changes the story when confronted with contrary evidence. In most instances when a person lies about a part, they lie about the whole. Innocent people as a rule, do not change their story because they know what actually happened.

Guilty people will project guilt by "opening up the crime to the world" and making everybody a suspect. Ask questions to see if the suspect offers unrealistic explanations for how the crime may have been committed.

Guilty people are also masters of exclusion. Test by questioning, how far they will go to exclude themselves from any physical or mental connection to the crime. Do they know who

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committed the act? Do they suspect anyone? Have they ever fantasized about a similar act? Have they heard or read about a similar act? Guilty people will feign a lack of interest.

Be particularly suspicious of a person whose entire defense is reduced to a singular argument. For example:

"I wouldn't steal the money because I can get all the money I want from my parents."

"I wouldn't burn my business because I was making money."

A singular statement designed to convince has to be destroyed by astute questioning. Failure to do so allows the suspect to continue lying, protected by a statement which he believes is irrefutable.

Ask questions to determine what tactic the subject is employing to defend himself. Does the person argue a specific innocence based on fact, or is the person attempting to exclude himself by alleging good character?

Ask questions to see if the suspect portrays realistic feelings and emotions regarding the crime in question and his being under suspicion. A dispassionate demeanor is highly suspicious. As a defense mechanism, guilty people put themselves in an emotional "neutral slot." They do this to avoid any manifestations of guilt. This type of suspect fails to express feelings and avoids the use of painful words.

Ask questions to determine the consistency of the suspect's story. An interrogator should be suspicious of a person who leaves out important details which were told to the other investigators or witnesses. Did he leave them out because he doesn't want to repeat the lie to you? Is there a logical explanation for the omission? An interrogator should definitely be suspicious of a suspect who offers a last minute detail in a last ditch effort to convince. In essence, he guilds the lily. If something is important to the suspect's defense it should have been mentioned up front.

Rule Seven: Ask Questions That Reveal the Defense Mechanism of Projection.

Most guilty people project guilt. They blame anyone but themselves. They seek to justify the act by blaming others. This tactic is employed by guilty people so frequently that an experienced interrogator might argue that it is instinctive in nature.

Ask questions to ascertain the absence or presence of this particular defense mechanism. In my opinion, this particular phase of questioning is the most revealing in the determination of truth or deception.

If I was limited to only one question to render an opinion as to guilt or innocence, the question would be, "What is your theory about this crime?" Innocent people are generally

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comfortable with any question because they are telling the truth. Guilty people become unnerved when asked about something they are trying to avoid or suppress. For that reason, the suspect should be asked projective questions such as:

"Why is the accuser saying this about you?"

"Do you think that the witness is lying?"

"How do you think you're going to do on the polygraph test?"

"Do you think this is a real theft or a clerical error?"

"Do you think the accuser made up this story?"

Rule Eight: When You Have Nothing to Evaluate, You Have to Force an Evaluation.

The most difficult subjects to interrogate are those that employ the tactic of repeated assertion. They keep saying, "I don't know anything about it." The underlying philosophy of this subject is encompassed in the saying, "It is easier to believe - a lie heard a thousand times, than to hear the truth for the first time." If a suspect says, "I don't know anything about it and you have little or no evidence to the contrary ..." the interrogator asks himself, "What am I going to talk to this guy about?" The answer is his alibi.

Questioning the suspect about where he was at the time of the crime affords you the best possible opportunity to make an assessment of the suspect's credibility. Innocent people look and sound truthful when relating their alibi. They have an air of confidence based on the fact that they know they are telling the truth. You have to ask penetrating questions to reveal the false alibi. Guilty people fail to verify their alibi by independent witnesses or documentation. They may also employ over-kill in verification, revealing an obvious anticipation of having to prove their whereabouts at the time of the crime. Evaluation of the alibi is one of the best methods for getting some idea as to probable guilt or innocence. If the guilty suspect, in his argument, disconnects physically from the crime, he will also disconnect mentally. This affords the interrogator a second opportunity to make an evaluation. You have to ask yourself how comfortable the suspect is in talking about the crime.

The defense mechanism of disassociation is evidence when the suspect offers no theories or suspicions, and demonstrates no desire to figure it out. In contrast, the innocent, knowing they didn't commit the crime, have a normal curiosity as to who committed the act and how. In fishing expeditions, where you have multiple suspects, particularly in bank cases, the innocent suspect is anxious to play the role of an armchair detective, and will invariably supply both theories and information that can lead to the solution of the crime. If the interrogator gains the confidence of those interviewed, the best lie detectors are fellow employees. You can't hide what you are from fellow employees eight hours a day, five days a week.

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If a person is reluctant to discuss the crime in question, this generally means he has no need to theorize about the crime; he already knows the answer. When you have no story to evaluate, evaluate the subject's alibi, and his defensiveness or lack thereof.

Rule Nine: Ask Questions to Determine Post-Act Behavior.

When a person commits a crime, the person generally manifests the act by questionable post-act behavior. Over the years, I have seen some bizarre behavior on the part of the guilty. For example:

Attempting suicide. Checking into a hospital with a sudden illness.

Leaving town.

Quitting a job.

Getting drunk.

Contacting an attorney before being questioned or accused.

Setting up an alibi.

Tempting fate by some reckless behavior.

Doing something nice for somebody as a compensatory act. Example: Bringing flowers to his wife or buying lunch for fellow employees with stolen money.

Changing a routine which has not varied in the past.

I have found it very rewarding to question suspects about their activities during the several hours after the crime. If any suspicious act is revealed, or any change in normal routine noted, you have to ask yourself the question: "Did the crime prompt them to do that?" In this particular category of questioning, the suspect is caught off-guard because he generally does not anticipate being asked questions concerning post-act behavior, and has no rehearsed answers.

Rule Ten: You Can't Think of Every Question You Should Ask.

During the early part of my career, I discovered that many people did not volunteer critical information because I failed to ask them specific questions. My failure provided them with an excuse to deliberately withhold pertinent information. Now, I do not let them off the hook so easily.

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I conclude my questioning with an all-encompassing question: "Is there anything that you didn't tell me because I didn't ask you the question?" It is amazing the number of times you receive the response, "Well, there is one thing ..."

When you have finished your questioning and concluded that the person is lying, you have to make the most critical transition in the interrogation: The transition from Non-Accusatory to Accusatory Interrogation.

THE TRANSITION FROM NON-ACCUSATORY TO ACCUSATORY INTERROGATION

This task is less difficult if you are a polygraph examiner. You simply state to the suspect that in view of the polygraph test results, his story is not the truth. It is imperative that this declaration be preceded by pointing out the suspect's deceptive responses on the polygraph charts.

There has to be a demonstrative example of the suspect's guilt which in turn enhances the objectivity of the examiner's opinion. A suspect must get the impression that the examiner based his opinion on the polygraph charts and not on the case facts. In the latter stages of the post-test interrogation, you can couple the test results with the inconsistency of the suspect's story.

If you are not a polygraph examiner, the transition from Non-Accusatory to Accusatory Interrogation takes finesse. When I'm not utilizing the polygraph test results to make the transition, I employ a technique that I call "The Hypothetical Approach."

I point out to the suspect that in the beginning I had an open mind, but that after questioning him, I find several disturbing points in his story. I say that I have not drawn any final conclusions, but that I want to talk to him on a hypothetical basis. The interrogational argument should be as close as possible to the following:

"Let us assume that you are basically a good person, but that you have become overwhelmed by personal problems. You have reached a point in your life where you no longer care, and one more potential embarrassment will not make a difference. Suddenly, you view the money in question as a solution to your immediate problems, and in one impulsive act, you violate a standard of morality that you have used as a guide most of your life."

While I am talking to the suspect, I watch for what are called "buying signals." Do I have the suspect's attention? Is he listening intently to what I have to say? Is he showing no resistance to what I have to say? Is he nodding his head in agreement? Does he look more depressed? Are tears welling-up in his eyes? If so, I launch immediately into Accusatory Interrogation. "You're a nice person, but I know you stole the money." The subject's reaction to my declaration is the Litmus Test. If there is no vociferous denial, I know I am on the right track. In this phase, powerful interrogational arguments are then employed. Theme development

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is a complex subject for another article. There are, however, several basic requirements for developing interrogational arguments that can be outlined here.

GUIDELINES FOR CREATING ACCUSATORY INTERROGATIONAL ARGUMENTS

Any argument you employ to break down a suspect's resistance must be based on an underlying truth. If the suspect gets the impression you are giving him a "snow job" he will lose respect for you and you lose credibility. Don't insult the intelligence of the suspect. The argument should appeal to his common sense. The argument should offer a realistic solution to his predicament.

Don't dictate to the suspect. Many suspects believe that they lose their manliness by confessing. Indicate to the suspect that he is the captain of his own ship, and you can only offer food for thought. The decision to tell the truth has to come from him. You have to point out that this is the last time he will have control of his destiny. If he walks out of your office without telling the truth, the judicial system will dictate his fate.

Any argument you employ should show insight on your part regarding the subject's personality, and the best solution for his problem. I have been very successful in telling a suspect why he committed the crime, and why he is not confessing. This tactic seems to take the wind out of his sails. You ingratiate yourself with the suspect when you demonstrate an understanding of him as a human being. To avoid giving the impression that the suspect is just another number, you have to indicate that you have a personal and academic interest in him. You have to point out that you know that the suspect is capable of telling the truth.

Some of your arguments, should have an emotional appeal.

"Your life is not over, there is always hope. This is a new beginning."

"You're not a bad person, you must made a mistake. You don't measure a person by a singular act, you have to consider his total existence. You measure a person by what he can rise to and not by what he can sink to."

"By telling the truth, you will walk out of this office a lot smarter than when you came in and you will also feel better."

Suspects generally lie out of self-preservation, but they also believe that by lying and denying the crime, they are doing the smart thing. The interrogator has to create arguments pointing out to the suspect that he is not doing the smart thing by denying the crime. The interrogator should encompass in his arguments the following thoughts:

The suspect has too many loopholes in his story.

By lying, the suspect makes a bad situation worse.

Polygraph, <u>24(</u>4)(1995).

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The suspect is thinking emotionally rather than rationally.

No jury or judge will believe the suspect's story. The suspect will only insult their intelligence.

What the suspect did is bad enough, why should he also look like a liar?

You should point out to the suspect that even a professional criminal knows when to throw in the towel. There is just too much evidence for the suspect to lie about.

Don't demean the suspect in your arguments.

Don't give the impression that the suspect is some kind of animal. Remember, he has to go on living with himself. Examiner Charles Zimmermann and I worked on a case in Massachusetts, where the suspect killed several women and cut up their bodies. The suspect was an avid reader of philosophy, and had a high opinion of himself. I am convinced, that one of the reasons he confessed, was that neither Examiner Zimmermann, nor myself, despite the bizarre nature of the suspect's accts, personalized the interrogation by making degrading remarks to him.

Don't invoke additional guilt feelings in the suspect. Always minimize the crime.

Find an attribute of the suspect that you like, and then argue that he could not possess that characteristic and be a liar, too.

Don't give the suspect the impression that you look down on him by personalizing the interrogation. He will not give you the satisfaction of hearing him confess.

Create arguments that appeal to the self-interest of the suspect. It is fallacious to assume that most people confess because of a stricken conscience. Most people confess to better their position. One can live with guilt which is a private thing. What most suspects fear is the shame that accompanies the public admission of the crime. The interrogator has to help them cope with that shame by pointing out the benefits of gaining personal and public respect through a confession.

Point out that by tradition, those who place themselves at the mercy of the court invariably get a lesser penalty. Indicate that a confession will give the suspect the appearance of being a good candidate for rehabilitation.

Point out to the suspect that to gain self-respect, there are only three things that he can do: Tell the truth, be sorry for what he did, and get on with his life.

Point out that you can't gain public respect by insulting people's intelligence. People may not condone his act but they will respect him for having the fortitude to tell the truth.

Polygraph, <u>24(4)(1995)</u>.

Interrogation

I don't want to be misunderstood. In those instances where you have a particularly emotional suspect, you can use an argument of conscience. Where the novice interrogator makes a mistake, is to assume that this tactic is applicable in all cases.

For a number of years, I was puzzled about why some suspects didn't confess despite the fact that in my opinion, I had used convincing arguments. After viewing some video tapes of confessions I obtained in various types of cases, the answer became apparent to me. I wasn't assertive enough. This realization triggered the concept of a formula for obtaining more confessions from intractable suspects.

The Formula is: Leverage plus the force of the assertion of guilt equals confession. Before explaining the formula in detail, I would like to review some of the obvious reasons why suspects confess:

Why Suspects Confess

Torture - Worldwide, more confessions are obtained by torture than by any other means. There are just a few nations, including the United States, which demand that their public officials use civilized means of inquiry. Those nations that prohibit torture and do so for two reasons: (1) They believe the torture engenders false confessions. (2) Public officials set standards for the populous to emulate. Public officials acting in an atavistic manner, undermine the basic principle of striving to obtain the highest degree of civilized behavior in a given society. Those nations who employ torture believe that it is the quickest and most proficient means for obtaining a confession.

Psychological Duress - Long periods of continuous interrogation will wear down a suspect's resistance to a point where he will eventually confess simply to get the interrogators off his back. Continuous psychological duress can be a catalyst toward obtaining a false confession.

The Self-Interest Factor - Man is basically a pain-avoiding, pleasure-seeking animal. The suspect will always operate from the self-interest principle. A suspect confesses to ingratiate himself with the interrogator hoping to obtain a lesser penalty.

Resignation: "Belly Up" - The suspect confesses because there is too much evidence against him and lying would make a bad situation worse.

The Conditioned Response - A conditioning of the autonomic nervous system through parental teaching, school, church and state.

This process creates the thing we call conscience. A violation of principles learned, results in the feeling we call guilt. Many people can live with guilt by the employment of defense mechanisms. Others are prompted to confess to abate guilt feelings. Simply put, it's an itch that needs to be scratched. The person confesses to punish himself. The confession is a restoration factor; the person confesses to regain personal respect and

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public acceptance. The suspect reaches a point where he thinks "Why be a liar on top of what I already did?"

The Captive Audience Syndrome - The suspect feeds on the personal attention and recognition he gets from the interrogator. An interrogation creates a strange, symbiotic interpersonal relationship between the suspect and the interrogator. I have seen many people confess to the act of murder simply to reward the interrogator.

The Vicarious Factor - A confession can recreate the sensual experience which existed at the time of the crime. The confession allows the suspect to relive the crime. By describing it aloud to the interrogator, the sensual experience is heightened. The suspect in many instances, is prompted to go into the gory details of the crime simply by watching the reactions of the interrogator as he is confessing. Many suspects like to shock the interrogator.

Revenge - Many suspects confess to embarrass a loved one or to get revenge against a codefendant.

Recognition - Some people confess to gain notoriety for the crime in question. This factor is the motivation for a lot of unstable people who confess to crimes they don't actually commit. Guilty people who are motivated by recognition confess to enjoy celebrity status. The confession and the ensuing consequences give them their brief "moment in the spotlight."

The Institutionalized Suspect - Many ex-convicts are not intimidated or deterred by the possibility of going back to prison. They don't like the responsibility of freedom. In some respects, they are happier inside prison than out. Obtaining a confession from an institutionalized suspect is a lot easier than getting one from a suspect who has an intense fear of going to prison.

The Interrogator - In my opinion, of all the reasons why people confess, then one that has the greatest bearing on obtaining a confession is the technique of the interrogator. Experienced interrogators know that you don't obtain confessions simply by asking questions. They know that you don't obtain confessions through the process of crossexamination which is designed primarily to embarrass or discredit the suspect. You don't obtain confessions by listening to a suspect's story like a human tape recorder. Confessions are obtained by an interrogator who uses arguments to convince the suspect to tell the truth.

These persuasive arguments are called themes or sales pitches. Good interrogators know that it's the rhetoric that counts. It's not what you say, but how you say it. Good interrogators develop a pool of arguments over a period of time, from those that have been used successfully in past cases. During an interrogation, the interrogator draws from this pool those themes which he believes will convince the subject that he will be better off by telling the truth.

Interrogation

The demeanor of the interrogator is the key factor. He has to get the job done, but he has to do so within the guidelines of our legal system. This is an extremely difficult task in the sense that whatever you say is going to be construed by someone as either a threat or a promise. In any event, to be successful, the confession formula has to be utilized.

To reiterate, *leverage plus the force of the assertion of guilt, equals confession*. Leverage in any interrogation session, is the weight and the amount of evidence you have with which to confront the suspect. There is a direct correlation between the weight and the amount of evidence you have to your chance of getting a confession. Irrefutable evidence such as fingerprints or ballistics create the ultimate leverage in any interrogation session.

Unfortunately, confronting a suspect with the evidence you have doesn't always prompt a confession. Confronting a suspect with the evidence you have is considered the first level of confrontation. If the interrogator is not successful at the first level of confrontation he has to rise to the second level, which involves the employment of persuasive interrogational arguments. Most confessions come at the second level of confrontation. With difficult subjects, it is necessary to reach the third level of confrontation which requires an increase in the force of the assertion of guilt. Thus, the second part of the confession formula: *The force of the assertion* of guilt, plays a vital role in obtaining confessions. The validity of this concept becomes apparent when viewing video tapes of successful interrogations. It never ceases to amaze me how strong the assertion of guilt has to be to obtain a confession from most people. The suspect, although guilty, always lives in hope of outlasting the interrogator. Generally, the suspect will not confess until he is convinced that the interrogator has no doubt as to his guilt and is not going to give up. The interrogator has to give the impression that the issue of guilt or innocence is no longer debatable. The only remaining question is whether or not the suspect has the fortitude to tell the truth.

In most instances, failure to obtain a confession is caused by a lack of evidence with which to confront the suspect or the fact that the interrogator was not assertive enough in his arguments.

A sudden elevation in assertiveness is the best tactic to employ to obtain a confession. This is done with a no-nonsense, businesslike approach. The suspect gets the impression the interrogator is gaining strength through his arguments rather than giving up. The interrogator enhances the force of the assertion of guilt by changing body positions. This is done by leaning forward if in a sitting position or by suddenly standing up if seated. The secret to successful interrogation is to create what I call *benevolent dominance*. This dominance is created not by physical intimidation or arrogance, but by insightful arguments augmented by the positive assertive demeanor of the interrogator.

Assertive verbalization done in a businesslike manner, remarkably increases your probability of obtaining a confession without violating the suspect's rights. To reiterate, confronting the suspect with the evidence against him, plus the employment of interrogative arguments is not always enough. There has to be a continual build-up in the force of the assertion of guilt.

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The ultimate assertion of guilt occurs in Closure. Closure comes in the concluding sentence of your argument, and seeks the first acknowledgement of guilt. Weak closure negates even the most effective interrogative arguments. Closure is the culmination in one statement of the force of the assertion of guilt. For example, "You did kill her, didn't you?"

CLOSURE

Confessions are obtained by persuasive interrogational arguments, the employment of the confession formula, and closure. Of the three, closure is the most difficult for many interrogators. In fact, it is the most difficult part of any sales effort.

Fear of failure causes weak and tentative closure. The interrogator hoping for a confession, yet fearful the suspect will not acknowledge guilt, puts off closure. Good closure is a matter of timing.

Sometimes closure is premature. Other times it is so belated that the interrogator talks the suspect right out of confessing. Professional sales people call this "talking past the sale." I have observed a lot of interrogations, and quite often, I have said to myself, "When is he ever going to ask the suspect if he did it?"

You have to sense when to close. You get a feeling when the suspect is ready to confess. An ambivalent suspect, wavering in his decision as to whether or not to confess, will succumb to a forceful no-nonsense closure.

There are several types of closure. I generally choose the type that fits the mental toughness of the suspect. With weak suspects you can use the direct approach: "You did steal that money, didn't you?" Generally it is easier for a suspect to confess to a detail of a crime than to make a sudden full disclosure. For this reason, I prefer a forceful, but softer approach. For example, "You still have some of that money left, don't you?" Or "You can take me to the gun you used, can't you?"

If the suspect replies in the affirmative, it's axiomatic that you are going to get a full confession.

The third type of closure involves giving the suspect a nice reason for committing the act rather than the real reason. For example:

"If you had time to think you probably would not have done it. I get the impression that this was just an impulsive thing on your part, isn't that true?"

"You seem like a nice person to me, and I don't think you would have stolen this money if you weren't going crazy because of unpaid bills, isn't that true?"

Interrogation

I generally preface closure with a compliment, because friendliness begets friendliness. This tactic has been very successful for me. I will pick out some characteristics of the suspect, and use it to "grease" closure. For example:

"I have talked to you long enough to know that you are basically a good person and not a liar. You did take that money, didn't you?"

If you acknowledge the good parts of his character, he is more apt to admit the bad parts. Do not show disappointment on your face if after your initial closure, the suspect does not confess. Without missing a beat, reiterate some of your interrogational arguments and close again. Success is predicated on patience, and perseverance.

CONCLUSION

A polygraph examiner should be a better interrogator than a detective or a lawyer. Interrogation is the essence of our business. Good interrogators get good polygraph charts. The examiner's demeanor and astute questioning should assuage the apprehension of the innocent and unnerve the guilty. There should be no question as to the social utility of the polygraph profession. Any effort to determine truth is a noble pursuit.

Douglas Steere, the author of the book *A Random Harvest*, said it best, "To listen, another's soul, into a condition of disclosure and discovery may be almost the greatest service that any other human being performs for another."

* * * * * *

THE USE OF THE POLYGRAPH WITH CHILDREN

By

Steven R. Adang

Introduction

The purpose of this project is to, generally, give an overview of the child's involvement with physiological examinations in the past, up to and including the polygraph instrument as we use it today. Also, to attempt to come to a general understanding of polygraph usefulness and effectiveness with a child, and a determination of the age at which it becomes less effective. With this determination is a short survey of experts in the use of polygraph with children, along with opinions of seasoned examiners. A general recommendation will be made as a result of these findings.

Questions have been asked about the necessity for submitting a child to the process of polygraph, or any physiological examination. There are several reasons that this may be required now and in the future. One would be the fact that sexually related crimes are being reported at an increasing number in contrast to years ago, and the humiliation of reporting is not covered up as it has been. With this in mind, the nature of sexual crimes is usually one where suspect and victim are the only participants, and it is unlikely that corroborating evidence, either witnesses or physical evidence, can be obtained. The importance of the polygraph increases as the need for substantiation increases. In Germany, this need was recognized, as explained by child expert, Dr. rer. nat. H. Herbold-Wootten):

In criminal proceedings in Germany a distinction is made between objective evidence and personal evidence. Objective evidence includes such things as fingerprints, comparison of blood groups, weapons used and so forth. The testimony of witnesses is personal evidence. More weight is given to objective than to personal evidence, but it is not always available to the judge, who frequently has to rely solely on the testimony of witnesses. This is almost invariably the case with sexual crimes of the nonforcible kind, and in particular, those committed against children. In such cases material evidence which could lead to the conviction of the criminal is very rare, and given the privacy in which sexual acts normally take place in our society, witnesses other than the participants are seldom found. In such cases it is therefore an invariable rule that the testimony of the young victim of such a crime forms the basis for the conviction. (Herbold-Wootten 1977)

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A second reason for the need for additional evidence, including polygraph results, is a disturbing amount of false allegations made by victims of crimes including false allegations made by children. There is a need to find the truth and to confirm the allegations made. This obligation to seek the truth includes polygraph examinations of the child victim, as well as the alleged adult perpetrator. False allegations are made for many reasons: To influence others through a misconception of the offense, or fear of detection of an actual event.

A third reason, and probably more important as to why polygraph examinations are a necessity with children, is the determination of truth regardless of age. There is an obligation towards truth, regardless of the outcome, in any allegation to give justice to the issue at hand.

Child Competency

There has not been much research done on determining a proper age of examinees. One factor is the question of how a "child" is defined, as well as determining the child's competency to undergo an examination using the polygraph. The ability to differentiate between fact and fiction, reality and fantasy is important to determine a child's capabilities to differentiate between truth and lies. A child, according to *Webster's*, is "a young person of either sex, especially between infancy and youth." Also, "one who exhibits the characteristics of a very young person ... a person who has not yet come of age." This generalized definition is one dealt with when determining the competency of a child, whether it be for a polygraph examination or testimony in court, the competency needs to be established. This is not different from the requirement for an adult examinee or witness, and is a necessary requirement. Dr. Herbold-Wootten distinguishes a child in two categories:

... child in the legal sense, which means a person under the age of eighteen, and a child in the psychological sense, which means a person in a special development stage physically and psychologically. Childhood psychologically ends roughly at age ten. (Herbold-Wootten, survey response)

In this paper, "child" will be considered in the psychological sense, unless, for statistical purposes, it is to separate them from adults.

When discussing the competency of the child to undergo a polygraph examination, the understanding of the difference between truth and lie needs to be assured. When growing up, most children are influenced by family to follow standards, and as a rule, are able to know when the truth is not told, and the consequences for not telling the truth. It may be that the child is less influenced in the early years by complicated falsehoods that may confuse them. However, other opinions explain it differently:

... One question closely related to children's truthfulness is that of their ability to differentiate reality from fantasy. On this issue the jury is still out as far as drawing conclusions that are relevant regarding legal testimony from currently available evidence. It has long been recognized that children younger than six or seven may confuse their dreams and imaginary play with reality. A recent review

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by Johnson and Foley cite findings from some studies indicating that, under some conditions, children younger than six years do not make a clear distinction between fantasy and reality, particularly in distinguishing between what they only thought and what they actually did. ... Children begin to use a consistent definition of lies by age four, and to differentiate lies from objectively false statements by age nine. Although children nine years on are able to discriminate lying from objectively false statement(s), neither they nor adults always make this distinction. (Burton & Stritchartz 1991)

Other factors play a part in what the child believes is the truth. If understanding of a lie and its consequences have been met, the child still, may believe that what he is telling is the truth. Family influence, influence from other factors, and perception of the issue itself may steer the child towards something less than the truth. The ability to determine this influence, and keep it separate is important in maintaining the actual events in their mind(s):

... The poor performance of preschoolers is not alleviated simply by identifying their basis. In an actual adjudicatory context, a child may be interviewed by numerous persons, *e.g.*, social workers, attorneys, police, parents, judge, teachers, peers, following an act of domestic violence, or suspected sexual molestation. If erroneous information is introduced during such intervals, it may resurface in the form of the child's reconstruction of the events, if the choice presented to the child is between misleading information and the original information (*e.g.*, between the actual perpetrator of a molestation and someone who was erroneously suggested to have been the perpetrator) ... One thing is clear to us; preschoolers do appear more likely to incorporate erroneous information into their subsequent recollections than older children. Preschoolers memory may be more suggestible than older subjects, because they fail to detect erroneous information when they do detect it. (Ceci, Toglia & Ross 1987)

In the above authors' opinions, the emphasis was on very young children, and notes that older children (school age) would be less susceptible to this influence, as they grow older. As the age of the child increases, the likelihood of obtaining more valid information and a better understanding of competency would be greater, not only as a competent witness, but as a competent examinee in a psychophysiological test.

Legal competency is also required, and its requirements vary. A specific age is not specified as to competency, but for the most part, requirements are determined for competency:

... The capabilities required for a child to be deemed a competent witness vary from state to state. Some states require that a child must know the difference between the truth and a lie and be able to recall past incidents. ... case law from other states mandates that only the ability to tell the truth should be considered when determining competency. ... Four states--Colorado, Connecticut, Missouri, and Utah, specify that alleged victims of child sexual abuse are always competent

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to testify. ... In nearly every state a child must be able to tell the difference between the truth and a lie in order to be a competent witness. However, ... only a small amount of psychological research has been devoted to an understanding of children's definitions of the truth and of lies. It appears, therefore, that conclusions about this aspect of children's competency are premature. (Haugaard *et al.* 1991)

The research done by the above authors found that, as a general rule, children between ages four and six could determine that saying something that was not true to a policeman was a lie, even if the parents of the children prompted the child to make the statement. In a summary of findings on children's testimony, Dr. Gibson, of the Wisconsin Polygraph Association, stated:

... Younger children's memories are not as detailed as older persons with the same learning opportunity, and therefore, contain less inaccuracies. However, because of poorer memory and lack of supporting information, their memory is more precarious to the manner of questioning (suggestibility; ... etc.). ... Children can sometimes be more accurate when question(ed), because they don't fill in 'what must have happened' owing to their naiveness. Allowing children to give free recall and account for the incident in their own words, without questions provided for the fewest incidents inaccuracies. However, such accounts lack completeness. (Gibson 1991)

Dr. Gibson's endorsement of allowing the victim to give free recall, coincides with the other opinions that outside factors that influence the recollection of the true data need to be lessened. An official determination of competency needs to be determined and an 1895 ruling by the Supreme Court, which appears to still be the rule for this determination is as follows:

... Young children could not be declared incompetent per se, but that the admissibility of their testimony should be determined by the trial judge on a caseby-case basis through an examination of the child. Competency was to depend on the capacity and intelligence of the child, his appreciation of the difference between truth and falsehood, as well as his duty to tell the former. (*Wheeler v. United States*, Tex., 16 S.Ct. 93, 159 U.S. 523, 40 L.Ed. 244 [1895])

The court allowed a challenge to be made in this determination, and if done, a decision, judicially, was made on four factors:

(a) the child's ability to distinguish between truth and falsehood and to understand his ability to speak the truth; (b) the child's capacity at the time of the occurrence to perceive the events accurately; (c) the child's ability to retain an independent recollection of the occurrence; and (d) the child's capacity to translate the memory into words and to answer simple questions about it.

Assuming that the requirements for competency are met, proper state of mind can be found for the polygraph examinee. In general, competency as a witness subsumes competence

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as a polygraph examinee. Differing opinions, as shown, are given as to the reasons for lack of competency, but the general opinion separates preschool and the very young from the school age and the 9 and above group. It was necessary to discuss this issue to give insight as to the capabilities of the examinee to not only understand the test, but to be able to respond in an appropriate manner physiologically after the stimuli is presented.

Use of Polygraph/Child Testimony By the Courts

The use and acceptance of child testimony has been important for years, but only recently have the United States Courts allowed polygraph results from children to be admitted without much discussion. Although limited allowance has been made, there appears to be an acceptance, as with adult cases, that if a proper test was conducted (with stipulation or over objection) that polygraph testimony is important, regardless of the age of the examinee. Although, as with adults, scrutiny is done on a case-by-case basis, there does seem to be a relaxing of the use of polygraph results for corroborative evidence, and no discernible differences or objections are made as to the age of the subject. Hopefully, this relaxation will continue to the point where there is more acceptance. As mentioned above, even in 1895, the Supreme Court recognized the need to allow evidence in to be judged on whatever value it may bring, and that tradition seems to be continuing.

Polygraph use with children by the courts in the United States has been noteworthy. In California, since the early 1960's, the merit of its use was noted. For example:

... In the American Bar Association Journal, vol. 5, #12, December 1964, Roger Alton Pfaff, presiding judge, Consolidated Domestic Relations and Conciliation Court, Los Angeles County, California wrote: Since March, 1962 ... Los Angeles Superior Court has been utilizing the polygraph in domestic relations cases, first in child custody, and later in paternity cases. Attorneys were so satisfied with the results that now they, not the judge, suggest the use of polygraph. (Ferguson 1973)

Additionally, the California Youth Authority has found its effectiveness with its evaluation of juvenile offenders:

... The Youth Authority's criteria for admissibility of polygraph are more restrictive, in favor of the accused than are those of adult courts; ... Since the polygraph program began in the Youth Authority, examiners have been instrumental in discovering the perpetrators of literally hundreds of crimes, some extremely serious, and many innocent wards have been cleared of false allegations by polygraph use. Polygraph has also been applied effectively to a number of special problem situations such as screening youths for criminal activities. If the polygraph is used with appropriate safeguards, it can vastly improve the effectiveness of the judicial process. (Lewis 1979) Even with more restrictive use, and the burden being increased, polygraph has been found to be an effective tool for the use in juvenile proceedings, thus, lessening the need for judicial fact finding procedures outside the realm of polygraph. In criminal admissibility, cases dealing with the child and the use of polygraph show, as mentioned previously, that courts are finding merit and will have an open mind to its use, regardless of age. In Chambers v. State, 239 S.E.2d 324 (Ga. 1977), a ten-year-old girl's polygraph results were admitted. The age of the subject was not a criteria for a decision by the presiding judge and Georgia Supreme Court, but the agreement made prior to examinations were enforced as agreed on. In fact, the defendant's decision to agree to the stipulation may have been based on his opinion (and his attorneys) that the ten-year-old victim would not submit to, or could not complete a proper examination. In contrast, not only was a proper examination completed, by the court's standards, on the ten-year-old showing truthfulness, but the adult's examination revealed indications of withholding information, supporting his conviction. The Georgia Supreme Court stated that, as before, only probative value would be given the evidence, reversing an appellate court's opinion based on case law concerning polygraph admissibility and its restrictiveness. In the appellate court's decision, even though reversing the trial courts decision, agreed that a lessening of restrictions of the polygraph from past cases, (Famber v. State, 213 S.E.2d 525, Ga.) was inevitable, and the Famber case "may be in jeopardy." The Chambers case gave equal importance to the ten-year-old's results as it did the accused's results. As previously stated, in some states, only the results of the accused's had been admitted, and at times, only if they were favorable to the accused, not "influencing" the jury with non-favorable results. Chambers was important as it showed the value of polygraph results as corroborating the statements made and impeaching the denial of the accused. The emphasis on the age is important as it successfully confirmed the past theories that, in these types of cases, corroborating evidence is necessary to find the truth when there is no physical or "objective" evidence available.

Another recent case, *Commonwealth v. Butler*, 621 A.2d 530 (Pa.Super. 1993) is cited, as it also allowed the polygraph results of a thirteen-year-old as evidence. Although reversed for other reasons, the consistency of admission of polygraph continues, regardless of age, when criteria for proper examinations are met. When scrutinized on a case-by-case basis, admissions are continuing, as courts are recognizing the need for additional evidence to come to an "informed" decision, and recognizing that polygraph addresses that need, and children are no exception.

As a rule, the use of the polygraph with children does have support of the legal profession dealing with child problems, not necessarily criminal in nature:

... civil and trial lawyers are consistently stipulating to and relying on polygraph in domestic and paternity proceedings. Psychologists have been given grants which call for the physiological use of polygraph instrument in attempting to solve reading and understanding problems of some children. (Ferguson & Miller 1974)

Hopefully, continuing scrutiny by the courts will confirm what polygraph experts have been saying for years, that it is an effective tool, when conducted properly, and will "discover the

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truth." In the courtroom, more than anywhere else, truth is the basis for the decisions, and is the foundation of our justice system.

Studies

There have been few actual studies involving the polygraph instrument and its validity with children. Past experiments, although not true polygraphs, have used physiological experiments, mostly GSR (PGR) alone, on children, to detect deception. These studies, although limited, did have consistent results, although not making a definite cut-off age for the examinee. One such study in Israel, in 1970, was conducted to replicate a study with adults done by Lykken two years prior. Lykken had studied the effects on the GSR (only) when confronted with combinations of frequency of use of the stimulus, relevance of the stimulus (to the examinee), and whether or not a verbal response was required. The replicated study, performed by Lieblich, was important for several reasons:

... Since the hypothesis used for the adults' study were multi-dimensional, involving combinations of frequency, relevance and the use of verbal response, it would be of interest to observe whether the structure obtained in adults holds for a very young sample. It is quite obvious that adults differ from children in many ways when variables are compared one at a time. However, it is not clear whether the relationships between psychophysiological vary with age ... (Lieblich 1970)

Another factor included noise presented to the subjects and assumes a process of differential attention to the signal given. His opinion on this:

... since very young children are believed to have a lower capacity for attention (Missen, Conquert, Kogan, 1969), it would be of interest to present information detection tasks to very young children. This would provide hints on feasibility of using psychophysiological information detection methods for children in special cases. ... (Lieblich 1970)

Using 26 middle class children from a day nursery in Jerusalem, Israel, Lieblich used the following age children: eight three-year-olds and sixteen four-year-olds. Using GSR only, a standard procedure was used in testing, each presented with six varied sequence of stimuli. The order of presentation was rotated, using names obtained from family members known to the subjects, common names, uncommon names, etc. The background information needed had been obtained from family members prior to the testing. Using the standard methods of presentation, Lieblich concluded that at the ages tested, the psychophysiological index carries less information than in adults. However, Lieblich was not sure if it stemmed from random noisiness, where the attention span was diverted, or by less differentiation in the stimulus presented.

Another study was conducted in New York, in the 1940's, also using PGR only. Using 80 delinquent boys (court referred), Fabian L. Rourke of the City College of New York and Joseph F. Kubis of Fordham University conducted a study as explained:

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... The object of the study was to determine (1) under what conditions the PGR can be used as a valid index of deception and (2) whether delinquents are less subject to detection in a lie than non-delinquents ... After a comparative analysis, using single records (sequence), two records, and more than two, an assumption was made that the rates of accuracy were low with the single stimuli, significantly above chance in the stimuli presented twice, and 97% accurate when the stimuli was presented more than twice. Addressing the second object, the results indicated that accuracy was not significantly greater for non-delinquents ...

The conclusions of the study indicated: (1) When the number of records deemed necessary by an experienced examiner were obtained from each subject, the PGR proved a reliable and highly valid index of deception. (2) Although significantly above chance, analysis based on only two records are not sufficiently accurate for practical use. (3) Delinquents are not less subject to detection in a lie than on-delinquents. (Rourke & Kubis 1940)

Although the purpose of the study was presented to show the use of physiological reactions with delinquents (children), a conclusion can be drawn that with the addition of all three components, *i.e.*, polygraph instrument, the results would be greatly enhanced and probably more accurate, than with the use of the PGR only.

In Russia, a study conducted in 1970 with 22 eight-year-old school children, psychologists Voronin, Konovalov, and Serikov used the GSR to determine the stored and perceived information, and the roles of emotions with the children. Without discussing the methodology of the experiment, their results indicated:

... that insufficient enlistment of the mechanism of storing traces of stimuli in the emotional sphere is one of the principal causes hampering an objective determination in young school children of imprinted information, but is expressible by a child in words contradictory to sense (denial of the contemplated word by the answer "no"). In addition, the successful determination of imprinted information in children depends on the type of presentation of the stimuli and on the time that passed from the moment of memorization. (Voronin, Konovalov, & Serikov 1972)

In a collection of papers discussing the accuracy of the polygraph instrument, Voronin's studies are noted, as he continued to use children and the use of the physiological evaluation (PGR) and its use for the detection of deception:

... In a 1970 study by Voronin and his colleagues, 0% of children 6-7 years old are detected, 12% of 8-12 year old children, 53% of 14-16 year old adolescents, and 87% of 18-30 year old adults. (Barland 1975)

With these two studies, Voronin gives significant indication that the validity of detection increases to above chance in the 14-16 year olds and above, and that there is less chance of detection for children below the age of 14, for a variety of reasons.

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Another study involving the detection of deception with children was done at the Institute for Juvenile Research in Chicago in 1935. Without GSR, Verne Lyon combined the continuous relative blood pressure and respiration to examine suspected deception in 100 cases, referred to them by the Juvenile Courts of Chicago. The purpose was to possibly facilitate court dispositions by means of studying physiological reactions to critical questions. The results of the study indicated that groups of those examined could be separated by (1) Clear records indicating presumptive innocence (25%), (2) Disturbed records which were immediately followed by confessions (29%), and (3) Disturbed records without admissions of guilt (46%). In the study, the first two groups constituted slightly better than half the group, over 50%, had bearing on court dispositions. (Lyon 1935) The study conducted confirmed that deception could be determined in children under the age of eighteen. Again, physiological evaluations were made with only a cardiosphygmograph and pneumograph, and without the electrodermal we use today, but were effective, regardless of the age of the examinee.

The Macomb County Sheriff's Department (Michigan) compiled a listing from June 1964 to December 1970, involving the use of polygraph examinations with their department. Part of that listing were juveniles (younger than eighteen years old) who underwent examinations for various reasons. The results of the statistics show that an overwhelming amount of cases, almost exclusively, involved sexual offenses. Those tested were for confirmatory testing or the test alleged abusers. According to the records:

- 15 confirmed the allegation as reported.
- 13 were found deceptive (either from the allegation made, or, in a few cases where the juvenile was the offender).
 - 1 results were inconclusive (examinee was mentally retarded).

Of the group of 29, the ages varied from 11-years-old to 17-years old. Twenty-six were female (mostly confirmatory tests), with 3 males (mostly suspects). It should be noted that in nearly all cases listed, the adult males suspected and tested, showed contrasting results to those of the female acusers, thus, complementing the conclusion of the confirmatory test(s). Although this was not a complete listing of polygraph examinations performed by the Macomb County Sheriff's Department, it listed sexual related crimes only and a reasonable conclusion can be drawn that this listing is comparable to the statistics with the polygraph for other departments uses (regarding children). Although the percentage of statistics were not listed, it appears that the use of polygraph with children at the Macomb County Sheriff's Department has been successful.

Dr. Stanley Abrams, a clinical and forensic psychologist in Portland, Oregon is considered an expert in the use of polygraph with children. One study by Abrams involved the use of mentally retarded children, and their capabilities on the polygraph. Abrams and Weinstein stated:

... Finding that retarded adults with a mental age below twelve could not be accurately tested, the experimenters (Abrams and Weinstein) hypothesized that testing of normal children below this age would be less than accurate. To test this, Abrams employed three separate Peak of Tension tests, each administered twice to children between the ages of 9 and 13. The accuracy noted for deception

in the 10-year-old was only 57%, but for the 11, 12, and 13 year olds, validity was found to be 83%, 96% and 94% respectively. These results would suggest that the polygraph testing of at least average intelligent children could be accurately conducted on individuals who are eleven and over. (Abrams & Weinstein 1974)

When evaluating the "child" psychologically, mental age of children, regardless of actual ages, (such as in the case of mentally retarded) can accurately be compared, according to Abrams, It would appear that the results concluded by Abrams in this study, are consistent with past studies, and possibly more applicable to current use due to the use of multiple physiological components, not available to those earlier experimenters.

In a second study by Abrams, he used eight children, ages 10-14. Standard tests for deception were used and physiological reactions were examined. it is not necessary to analyze the methods, but in a discussion of his results of the standard tests, Abrams stated:

... the findings of this study indicate that accuracy in the detection of deception in children begins at the sixth grade level, or eleven year olds of average intelligence. This does not imply that accuracy cannot be attained in younger children, but rather, that the probability of error increases. The 88% accuracy at the upper three grade levels would appear to be a rather high level of validity in consideration of the many weaknesses inherent in laboratory research. Generally, the greater the fear, the larger the physiologic response will be, making the deceptive individual more easily diagnosed. It would be expected, then, that if children in this study had more to lose, the percentage of accuracy and reliability would have been higher. (Abrams 1985)

Survey

A short survey was distributed to some considered to be experts in the field of the use of polygraph with children. Responses include opinions from some of those experts, including Dr. Abrams and Dr. Herbold-Wootten. In addition, the survey was distributed to some seasoned polygraphists, who may have opinions in this matter, based on their experience as examiners. They were Richard O. Arther, Jackie Byars, Michael H. Capps, Von Jennings, and Billy H. Thompson. The following questions were asked:

(1) Approximately, how many children under the age of eighteen have you conducted polygraph examinations on?

- (2) What was the youngest age of the child?
 - (a) What was the topic of focus?
 - (b) What type of questioning is normally successful?
 - (c) Was the examinee's attention span capable of accomplishing a proper test?
 - (d) Overall, could a proper examination be conducted?

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(3) Were there any unique problems not normally associated with adult examinees?

(4) In your opinion, is there a cut-off age, where you feel, a polygraph should not be given or is ineffective, and why?

(5) Do you feel a child is influenced by others, that he/she may not be able to separate truth from fiction, which would affect his/her mind set?

(6) Does Gender/Race/Ethnic affiliation(s) play a part in conducting a proper examination on a child?

(7) List any unusual situations or comments you wish to discuss.

Results of Survey

Overall, the results of the survey finds that the youngest age of a child examined was sixyears-old, with the average youngest being 11.5. The topic of focus with the children varied with juvenile offenders. Most of those polled indicate that there are no restrictions on the type of questioning, with most using a Control Question Technique. There was agreement that the attention span of the child does affect the examination, and a test can be properly administered with patience, simplicity of questioning, and limiting the time it takes to conduct the examination itself. Other than short attention spans noted, there does not appear to be any problems not normally associated with adult examinees. The cut-off age for a child examinee varied from 6 However, all said that young children can be examined, depending on maturity, to 16. intelligence, understanding of the examination. Dr. Herbold-Wootten suggests that no child be subjected, ethically, to the rigors of a polygraph examination. An exception would be a juvenile capable of committing a crime and having an understanding of the social impact. He, then would also be capable of understanding an examination. Three of six agreed that children can be influenced, but two also stated that adult examinees are subject to influence as well, and the child's ability to separate the influence from the facts of the situation are important. Only one stated that gender/race or ethnicity has influence in the testing, and one said it was like adults, and one suspected some interplay.

Several; of those surveyed expanded on their statistical information with comments: Mr. Capps, a polygraphist in Pasadena, maryland, stated ethnicity may play a part in language barriers or the use of colloquialisms, but not enough information is found to support this opinion. Mr. Arther, a polygraphist from New York, makes a point when he states, "What is lost by trying?" Mr. Arther advises that he does not use the cardio with his polygraph technique with children. Mr. Thompson, of Millersville, Maryland, agrees that testing children should be performed only when necessary, and routine testing is not justified. Proposals to test children should be subject to scrutiny made by persons not familiar with the psychological and emotional demands on subjects, adults or children. Dr. Abrams has not only researched and found the child suitable for polygraph examination, but expands on his opinion by stating that adolescent offenders are "easily convinced to make admissions."

The Use of the Polygraph With Children

All those surveyed stated, with proper care and understanding, a proper examination can be conducted on a child. The acceptable range was 6 to 16, specifically 6+, 12, 12, 13, 16, 16. It appears that under the age of 12 many factors enter into consideration, and may lessen the chance of a proper test.

Conclusion/Discussion

This paper includes a general display of what is required for a child to be subjected to a polygraph examination, involved in the capability mentally, for a child to understand the procedure he or she may undergo, as well as having the psychological set required to respond physiologically to the stimuli presented. Competency as described through legal history and psychological research indicate that differentiation between truth and lies is required for a child to have the capabilities to be examined. Although compared to the competency of child witnesses, the correlation between the two seem to be similar, and the requirements for a polygraph, understanding and reaction would be based on the same general requirements. The age of the child when this occurs is the determination, and as far as competency, no standard age is set, as too many factors are involved to arbitrarily establish a specific age.

Assuming that these requirements are met, children have been examined in the area of deception, and in the past, physiological testing has been conducted. With limited physiological instrumentation, general opinions have been that pre-school children (3-6) could not effectively be evaluated, because of factors of intelligence, fantasy, attention, etc., all restricted their abilities of concentrated and understanding. Ages 7-10 have apparently improved, but, depending on the same factors, are not certainly capable, and must be judged on a case-by-case evaluation of the children involved. A general acceptance, suggested by research and practice use, indicates that mental abilities from ages 11 to 12 and above are sufficient to generally conclude that a proper polygraph examination can be given. The survey sent to the experts and seasoned examiners confirms the results of studies and opinions of those involved in past years. There appears to be an agreement, not only with the past physiological and psychological opinions, but between the current theories used by practicing examiners and the experts of today. Aside from the many factors involved, a general recommendation can be made, where the likelihood of success for a proper examination would, in this writer's opinion, be accomplished. At approximately 11 to 12 years old, based on the studies, history, and opinions of past and present experts, and practicing polygraphists, the probabilities of achieving a proper examination are high. Although not impossible, younger children can be examined, but the probability of success is lessened.

There is a growing need for confirmation of truth in our society, especially in the Criminal Justice System. With the capabilities and availability of the polygraph technique, the truth can be found. A polygraph examination is an effective tool for this purpose. There is no differentiation for age when there is a necessity for finding the truth. Although there are legitimate exceptions to the rule, a polygraph examination can be an effective tool in the discovery of truth in children. As with adults, there are circumstances that do not allow this tool to be used, but with care, understanding and preparation, a child is not incapable of giving sufficient physiological responses in the discovery of the truth.

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THE USE OF POLYGRAPH WITH CHILDREN SURVEY

	S. Abrams	H. Herbold-Wootten	B. Thompson
(1) How Many	200-300	150	4-5
(2) Youngest	11	14	13
(2A) Topic	Juvenile Offenders	Juvenile Offenders	Theft
(2B) Question	No limits	No special problems	MGQT
(2C) Attention span	Yes	Yes/with simplicity in questions	Yes
(2D) Proper Exam	Yes	Yes	Yes
(3) Unique problems	No	No	No
(4) Cut-Off Age	11*	*	16*
(5) Influenced by others	No	Yes, just as adults are	No
(6) Gender/Race/ Ethnic	*	No	No

* Unusual Situations or Comments

- * Cut-off age avoid under 12, but bright 11 year olds, pose no difficulty.
- * Gender/Ethnic/Race differences in ethnic nature w/adults-assumption is same for children

THE USE OF POLYGRAPH WITH CHILDREN SURVEY

	M. Capps	J. Byars	V. Jennings
(1) How Many	100	200	20-30
(2) Youngest	13	6	12
(2A) Topic	-	Various	molest
(2B) Question	*	CQT	very specific
(2C) Attention Span	Yes	Yes - 5-10 min.	very limited
(2D) Proper Exam	Yes	Yes	Yes
(3) Unique problems	None	**	More patience needed
(4) Cut-off Age	16*	6+, depends on maturity level	13+
(5) Influence By Others	No age difference	Yes, as adults, solved in pretest	Yes, in many cases
Gender/Race/ Ethnic	*	No	Yes

Comments: *(Capps):

Type of Question: I believe control questions present more of a problem for young people than for adults. The examiner may cause the control to be too strong by using the same method to set up the control with the youth as he does with an adult. The control may simply be ineffective because it is not understood or it may not be a probable lie for the minor.

Gender/Race/Ethnic: Assuming all persons are treated the same there is no evidence that gender or race have any effect on the test outcome. I am suspicious that there is some interplay in ethnicity. This may simply be a result of language barriers or the use of colloquialisms but there is really a scarcity of information that can lead one to a decision on this matter.

** (Byars):

Unique Problems: Short attention to the issue at hand, the very young want to play and are for the most part not concerned. Relating on their intellect level is very important.

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SIMULATIONS AND POLYGRAPH RESEARCH

By

Norman Ansley

Although college students have long been used for studying various methods of detecting deception, some early reports on the use of the cardio-pneumo-polygraph in forensic psychophysiology surprisingly involves testing college students to find a real thief. Larson, (1932) in his book on lying and its detection, describes the testing of 90 female students living in a University of California dormitory to find a thief. He succeeded, and was successful again when he tested 38 female students in another college dormitory, the latter thief admitting to over \$500 in thefts. In 1936, Winter, a professor at West Virginia University, also used a cardiopneumo-polygraph to locate a thief among 25 women who lived in a dormitory (Winter, 1936). He also reported using the Jung's word-association test with a chronoscope to measure reactiontime. The latter method was unsuccessful, identifying an innocent person as the thief. Applying a numerical analysis to the polygraph charts he correctly identified the thief. In 1941, Professors M.E. Bitterman and F.L. Marcuse tested 81 male students in a Cornell University dormitory and correctly concluded that all were innocent of involvement in a specific theft, as the real thief, who was apprehended later, was not among those tested. Presumably, the college students in these four investigations represented a population of reasonably healthy young adults of above average intelligence, and as these were real cases of theft, adequate arousal probably was present. Larson, a police officer with the Berkeley Police Department (with a Ph.D.) was conducting official investigations, with arrest of the thief a probable result. He also had prior experience in conducting criminal cases with his apparatus. However, Winter, Bitterman, and Marcuse were without prior experience. Nonetheless, dismissal from college was a probable result of identification of the thief, so student examinees were probably apprehensive.

Since those early days untrained and inexperienced psychologists have, from time to time, been testing college students in mock theft scenarios, and making grave pronouncements about polygraph validity in the field (OTA, 1983). But without the apprehension and arousal experienced in real cases, the validity of the results of laboratory simulations is problematic. To infer field validity from laboratory research results the population must be appropriate, scenarios realistic, arousal levels like that in the field, trained examiners must be employed, field instruments used, and standard test formats used with accompanying pretest, questions formulation, and analytic method.

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Opposite Findings

Laboratory research with college student populations, non-standard equipment, nonstandard test formats, examiners lacking formal polygraph training, and unknown arousal levels can come to opposite conclusions. For example, one researcher wanted to know if belief in the polygraph test was necessary for it to work. The unpublished study by Saxe (n.d.) found a placebo effect. Timm (1982) found no placebo effect. There are significant differences in the reports, and neither were sufficiently akin to field testing to draw a useful conclusion. Both authors attempted to increase arousal with inducements. Saxe told students who volunteered there was a potential for a cash award. Timm told students who volunteered they would get a 1% grade increase for participation, and a 5% increase if they could obtain a truthful outcome.

College Students as Examinees

Despite the fact that college students are not representative of the population at large or any other population apt to be frequently tested by forensic psychophysiologists in real practice, psychologists have knowingly violated the scientific convention requiring a representative sample of the population in favor of the availability and inexpensiveness of college students. Of course, not all researchers violate this rule. For example, most research conducted at the Department of Defense Polygraph Institute now draws on rural, suburban and urban populations (Atlanta and Birmingham) for its research populations rather than the immediately available military recruits.

Are college students inappropriate examinees for any reason other than a lack of representativeness? Possibly so. They may be more used to being subjected to research, and less apprehensive. To them, the research may be more of a learning experience, or worse, a lark. Like other research examinees those designated for truthful roles have no real role to play at all. Unlike the other examinees, they are more apt to try to make it interesting by engaging in countermeasures or inappropriate behavior, confounding roles and results. Nonetheless, given the choice of student examinees or no research, I would opt for the research, recognizing the limitation.

Realistic Scenarios

There are, however, polygraph research projects where the populations represented the group who are to be tested. Consider Blum and Osterloh (1968) who used real police informants and real police examiners to test the validity of a polygraph technique (relevant/irrelevant) in the very police setting where informants give information that is true, only partly true, or entirely false. It was a prefect match of an appropriate mock scenario with the right subject population. Using police examiners was also appropriate as it avoided the other frequent error, testing conducted by an inexperienced and untrained scientists. General scientific education does not overcome a deficiency in specific skills, such as the administration of a polygraph test. (Bradley, Cullen & Carle, 1993).

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When Heckel, Brokaw, Salzberg and Wiggins (1962) wanted to know the effectiveness of a polygraph technique with a psychotic population they used delusional and non-delusional psychotics for subjects, with a group of normal persons for a control group. All the subjects really believed they were personally suspected of stealing a wallet. In fact, they were all innocent, but it was not the typical mock crime scenario. A professional examiner gave the examinations with a standard field instrument and used a standard field technique. Similarly, Hammond (1980) used alcoholics, psychopaths, and normals to study the effect alcohol and psychopathy had on polygraph validity. Unfortunately, Hammond's normals were college students and he used the typical mock crime, as did Raskin and Hare (1978) in their tests of incarcerated psychopaths and normals. However, when Patrick and Iacono (1989) replicated the study they used a mock crime that involved stronger incentives to appear truthful, a threat rather than a reward. They suggested that the threat might increase the false positive outcome. But the advantage in all of these experiments was that the subject populations were representative of the variables under study, psychotics, psychopaths, and alcoholics.

Imitating a role may be useful when real actors and actresses are used. Mallory (1980) made physiological recordings of actors involved in emotional scenes, with anger and fear. The four actresses did show arousal in skin conductance, heart rate, and respiration during their scenes. Stern and Lewis (1968) found that method actors who employ memories of specific sensory experiences connected with personal emotional situations displayed better control and production of electrodermal reactions than do actors who rely on stereotypical facial expressions, body positions, and voice tones to produce emotions. Thus, actors may be useful subjects. However, I am aware of only two studies in which actors were used as polygraph subjects (Dawson, 1980; Andanoff, Furedy & Heslegrave, 1995). That was a useful research project involving the study of countermeasures.

Artificial Inducements

Although monetary rewards are widely used to gain cooperation and heighten arousal, the effect is suspect. Where there are control groups who are not paid, the effect of paying subjects has not shown a statistically significant difference (Correa & Adams, 1981), nor has the amount paid, small or large, made a difference (Davidson, 1968). Although payment may be necessary to get participation, and may improve cooperation, there is inadequate evidence to support the assumption that small amounts of money heightens arousal. Like penny-ante poker, you may enjoy the game more because you can afford the loss; but it takes a big-stakes game with betting in the hundreds or thousands of dollars to produce arousal. Unfortunately, the financial rewards used in research rarely reach really worrisome levels. In the research by Raskin and Hare (1978), the financial inducement to appear truthful may have been meaningful, as the \$20 offered equalled a month's pay in prison. For real arousal, consider MacDonald (1905) who was seeking subjects to test in order to obtain physiological recordings of fear. MacDonald obtained the permission of a doctor who was about to be executed through hanging, to make recordings while

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he was being hanged. The executioner objected to this perversion of his art and MacDonald had to be content with recordings made in the murderer's cell just before the doctor was hanged.

One artificial means of heightening arousal that has been used in polygraph research is the threat of an electrical shock (Lykken, 1959). Bradley and Janisse (1981) obtained higher detection rates (higher heart rates and lower skin resistance) from college students who were threatened with a shock than from those who were not threatened. Once common, electric shocks and the threat of electric shocks are seldom used in laboratory research today. The fact that detection improved with this greater threat is significant.

One college professor, a psychophysiologist, reported that he has used a blood pressure cuff to heighten arousal. He said he pumped up the cuff to a point about midway between the systolic and diastolic pressure and left it there while conducting his experiments. That might account for higher arousal in those polygraph research projects where a field polygraph instrument is used compared with results from a single channel electrodermal recorder. There has been conjecture among polygraph examiners that if the blood pressure cuff was replaced with a comfortable sensor, we might have to find some other means of holding the subject's attention (Horvath, 1978). Now, it may be that the problem is even greater than possible inattention. The blood pressure cuff's discomfort may be creating a desirable level of arousal. Replacement with a Finapres, photoelectric plethysmograph, or cardio activity monitor (CAM) may reduce correct decisions.

Other means of heightening arousal such as white noise, a bright light, cold pressor, and similar measures remains untried in polygraph research. The use of pride to heighten arousal has appeared in some research. Orne's paradigm includes a situation in which the student is told only stupid people fail polygraph tests. Presumably this raises the level of anxiety and improves detection (Waid, Orne, Cook & Orne, 1978). Lieblich *et al.* (1974) also used pride as a means of motivation, but their research did not produce different results for high and low motivation. However, motivation may be important.

Wakamatsu (1976) achieved higher conductance rates for highly motivated subjects than less motivated subjects, who in turn had higher conductance rates than non-motivated subjects in a mock-crime paradigm. His high motivation was achieved by telling the high motivation group that polygraph tests were 98% accurate with criminals but only 50% with ordinary citizens who have higher intelligence and strong self-control. To add to the motivation Wakamatsu added a 1,000 yen bonus for appearing truthful and threat of an electrical shock if they failed. Here, we cannot separate out which incentive produced the heightened arousal that resulted in increased conductance rates. But the higher conductance rates for the less motivated than the nonmotivated appears to be attributable to a more specific cause as they were told only that those with higher intelligence and self-control are capable of controlling their responses, and they were to try their best to not show responses when lying. The non-motivational group were told only to deny the truth. Unlike Lieblich's results, Wakamatsu's research suggests pride may be a useful

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incentive. Another factor in Wakamatsu's research is overall attitude. When his subjects were told to take a carefree attitude of "I couldn't care less," the conductance rate of the highly motivated group was lower than the non-motivated group in the first experiment; and here was an anomaly in which the non-motivated group produced greater skin conductivity than the highly motivated group, and higher than they did in the first experiment.

When examinees believe the test is real, you achieve realistic levels of arousal. Such was the case with the work of Heckel, Brokaw, Salzberg and Wiggins (supra). But such realism has been achieved only a few times. Ginton, Daie, Elaad and Ben-Shakhar (1982) had 21 police cadets unwittingly participate in a double-blind research project. When taking a paper and pencil test in a course, the answer sheet for the test had a hidden chemical page that recorded what the cadets had written. After the test the chemical sheet was removed and the test returned. Subjects were asked to score their own tests, and seven of the 21 changed their answers. The researcher knew exactly what each one had done. A few days later the members of the class were told there was suspicion of cheating, and there was the opportunity to take a polygraph test to clear their name. Initially, all agreed. However, one guilty subject did not arrive for the test, three guilty subjects confessed, and one guilty and one innocent subject refused the test. Thus, two guilty and 13 innocent subjects took polygraph examinations in which researchers knew who was lying and who was telling the truth. A zone comparison test of three charts plus a card test after the first series was administered to each cadet. The examiners believed these were real examinations, as did the subjects. The original examiners, using non-numerical scoring were correct in 11 out of 13 truthful (85%), with two errors (15%), and no inconclusives. They were correct in two out of two deceptive subjects (100%). Overall, the original examiners were correct in 13 out of 15 examinations (87%). Two months later, eight examiners blind to the fact it was an experiment, numerically scored the zone charts. They were correct in 84 of 102 decisions on truthful subjects (82%), and 15 of 16 decisions on deceptive subjects (94%). They made one error in deceptive decisions (6%) and 18 errors with truthful persons (18%). In addition, there were inconclusive results with five deceptive decisions and 58 truthful decisions. The eight examiners who independently scored the charts, blind to conditions, were correct in 84%.

Scenarios and Arousal

All of the polygraph schools use mock crime scenarios in teaching polygraph techniques. Except for two research projects (Bradley, Cullen & Carle, 1993; Crowe, M.J. *et al.*, 1988) and a description of scenarios (Ansley, 1980) one must look to the individual research reports to study scenarios. This apparent lack of attention to scenarios has probably had an adverse effect on the quality of research. Those who use the conventional mock crime theft defend their use by pointing to validity results significantly above chance. But Bradley, Cullen & Carle improved on the mock crime by using personal events as relevant questions. However, this arousal may still be lower than arousal encountered in field examinations. Forensic psychophysiologists believe their field detection rates are higher than laboratory simulations because of the difference in arousal. But what is the level of arousal in the field? Presently, we have only two measures in the field we can quantify, the heart rate and the breathing cycles per minute.

Heart Rate

It is possible to compare anticipatory heart rates of those examinees who are involved in laboratory research with the anticipatory heart rates of those examinees who are subject to real examinations by taking heart rate data from the beginning of the first chart. Most of our data, here, is from unpublished manuscripts in the Department of Defense.

There is an example of a comparison conducted by a federal agency in 1987 in which a laboratory study had 116 examinees. In 1988, the same examiners, using the same questions, instruments, techniques, and with a similar population took anticipatory heart rates from 120 real cases in which all of the examinees were reported by examiners as non-deceptive, decisions sustained by quality control review. The average anticipatory heart rate of the laboratory examinees was 73.7 beats per minute (bpm), while the field average was 87.3 bpm. (Barland, Honts & Barger 1989) (see Table 1).

That 1987 research project has 92 examinees programmed into deceptive roles. Their average anticipatory heart rate was 78.6 bpm.

Another study of anticipatory heart rates was conducted involving 35 real examinees in which the tests and populations were much like those above. All were reported non-deceptive by examiners, decisions sustained by quality control review. The average heart rate was 91.2 bpm.

A 1980 study of 318 real federal cases called non-deceptive by examiners, sustained by quality control, averaged anticipatory heart rates from the beginning of first charts, but also averaged heart rates from the end of the last chart. The beginning average was 83.1 bpm while the ending average was 81.2 bpm. In the same study, 94 examinees were called deceptive by examiners, decisions sustained by quality control review. The anticipatory heart rate average of the deceptive group was 85.8 bpm while the ending rate was 85.1 bpm. (see Table 2).

A 1982 study of a large number of federal cases has beginning and ending heart rates for deceptive and non-deceptive, also separated into rates for men and women. All of the decisions reported were sustained by quality control, and as with the field studies above, inconclusive results are not included. There were 1,404 men reported as non-deceptive, and 128 men reported as deceptive (8.4%). There were 795 women reported as non-deceptive and 66 women reported as deceptive (7.7%). The average anticipatory heart rate of non-deceptive men was 83.8 bpm, for women 85.8 bpm. The average anticipatory rate for deceptive men was 107.4 bpm, for

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women 87.8 bpm. The ending rates for non-deceptive men was 82.5 bpm, for women 84.4 bpm. The average ending for deceptive men was 109.0 bpm, for women 90.5 bpm. (see Table 3).

An unpublished study by Grimsley & Yankee (1986) provided charts from which heart rate data could be extracted for examinees with assigned roles of deceptive and non-deceptive. The average heart rate for the 25 male non-deceptive examinees was 80.9 bpm, and 85.6 bpm for the 25 female non-deceptive examinees. The 15 males assigned a deceptive role had an average heart rate of 92.2 bpm while the 15 females in the deceptive role had an average heart rate of 89.8 bpm. The average heart rate for all in the non-deceptive role was 85.6 bpm, and for deceptive was 89.8 bpm. (see Table 4). The average for all examinees was 87.4 bpm. The Grimsley & Yankee study closely approximated field conditions in the scenarios, equipment, examiners, and decision making.

In Army simulated screening research, the average heart rate for 25 men and women in the truthful role was 69.3 bpm, and 73.2 bpm for those 30 in the deceptive role. (Barland 1981)

It is interesting but not unexpected that average heart rates for persons in non-deceptive roles, or called non-deceptive in field testing, are lower than average of those in the deceptive category. As for the difference in beginning and ending rates, Yamamura and Sasaki (1990) reported that in reviewing twenty sets of confirmed cases, ten truthful and ten deceptive, that the tonic heart rate increased among the deceptive examinees, compared to the truthful examinees, thus discriminating between the two conditions.

If we are looking for one index of arousal, heart rate may be the best available with present equipment. With field computer instruments we should be able to develop software that gives us printouts of heart rates at selected locations, and the average throughout each chart and the whole examination. We should also get conductance or resistance data, and information from respiration other than just cyclic rates.

Respiration

Respiration is the other readily available record from field and laboratory polygraph instruments. Considering anticipatory levels, a study of 855 real cases was made in which respiration was counted from the beginning of the first chart. All of these were scored as non-deceptive by federal examiners, and the decisions were sustained by quality control Inconclusive results were deleted. In the same group were 257 additional sets of charts scored deceptive (23% deceptive). The breathing cycle rate per minute (bcr) average for the examinees scored non-deceptive was 16.4, and for the examinees scored deceptive was 17.0.

In a laboratory study in which 91 were programmed deceptive, the average bcr was 16.0. The average bcr for the 87 examinees programmed non-deceptive was also 16.0.

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A study was made of 527 field charts of women who were scored non-deceptive, in which the beginning average rate was 16.9 bcr, and the ending average rate was 16.3 bcr.

A study comparing the beginning bcr average for 388 men compared the rate with the average bcr for 149 women. All these real cases were scored non-deceptive. The male average was 15.8 bcr and the female average was 16.5 bcr.

A similar study as that above compared the beginning bcr of 318 men with the beginning bcr of 94 women, all real cases scored non-deceptive. The average for females was 17.4, for males 16.4

There is a trend suggesting women breath a little faster than men and some weaker data suggesting deceptive examinees breath a little faster than non-deceptive examinees in real cases, but not in simulation studies. One study also suggests that non-deceptive women have a faster breathing cycle rate at the beginning of testing than at the end of testing.

Conclusion

If researchers want to know about the validity of polygraph examinations or find data on other aspects of field testing, simulations in the laboratory where they can control the factors under study need to be as much like field conditions as possible. If the population is not one of the variables it should be representative of the kind of people seen by examiners. Law enforcement examiners do not see many college students in their routine work. If the researcher wants to study screening examinations, he should attempt to attract to the research a representative sample of the kind of applicants under study.

Scenarios are often inadequate in representing the kind of polygraph testing under study. The much used mock-crime scenarios are often so poorly staged as to be lacking in realism, and do not produce arousal. There have been some imaginative exceptions. Some research is needed to find what kind of allowable scenarios produce arousal like that found in the field.

With computer-instruments now becoming commonplace in the field, perhaps some software can be developed that records more discriminating information from electrodermal, respiratory, and cardiovascular recordings. That would be useful in assessing arousal. The data is processed differently in analytic algorithms and respiratory rates and heart rates are used in the analyses (Olsen, Ansley, Feldberg, Harris & Cristion, 1991; Knapp & Layeghi, 1994; Olsen, Harris & Chiu, 1994). It is also important that the kind of arousal approximates that in the field (Capps, Knill, Evans & Johnson, 1995). The data presented in this paper suggests that researchers may be able to establish thresholds to know when arousal is sufficient, but the data for those thresholds must be more sophisticated and drawn from field data processed by computer instruments.

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When thresholds are established we can do more to determine what kind of inducements are useful in developing appropriate arousal levels. The work on artificial inducements may be coupled with the research on various scenarios. As with populations, the scenarios should represent the kind of field testing the researcher wants to study. Even when theft is the topic under study, the common mock-crime theft scenario may be inadequate. If we want to say that laboratory results apply to field testing, then laboratory personnel should be trained in the specific test format under study as not all control question, relevant-irrelevant and peak of tension/guilty knowledge, formats are alike. Moreover, the researcher is unlikely to conduct the appropriate pre-test format with its typical interaction if he only reads about it in a book.

Finally, the instrumentation needs to be like that used in the field. Many researchers who use a Beckman or Grass polygraph do not have a unit that is like the cardiosphygmograph in use on the electronic or computer instruments manufactured by Axciton, Lafayette or Stoelting. A photoelectric plethysmograph that they do have is not an adequate substitute for a cardiosphygmograph. The physiological mechanisms differ, and the photoelectric plethysmograph on the finger has less diagnostic value (Suzuki, 1965). Also, as the computer instrument becomes more common, laboratory estimates of accuracy will have to employ the analytic algorithms in use (Olsen *et al.*, 1991, 1994) or under development (Angus & Castelaz, 1993; Knapp & Layeghi, 1994). While laboratory technicians often lack the training in analytic methods appropriate to the test format, this limitation may be overcome when they are able to apply an algorithm appropriate to the technique, such as the Johns Hopkins University Applied Physics Laboratory edition of *Polyscore* which works with zone comparison formats (Capps, Knill & Evans, 1993).

Simulating field conditions is not always necessary or even useful in some types of developmental research, but when researchers want to know about field accuracy or utility, or want to apply their findings to field use, then they need to strive to match field condition as closely as possible with representative subject populations, standard test formats and the accompanying analytic technique, imaginative scenarios, and a setting that creates arousal approximating that in field psychophysiological detection of deception.

* * * * * * *

Simulations and Polygraph Research

TABLES

TABLE 1

	1987	1988	
	Laboratory Cases n. 116	Field Cases n. 120	
H.R.	73.7	87.3	

* H.R. = Average Heart Rate

TABLE 2

Field Cases

	Beginning	Ending	
n. 318			
Non-Deceptive H.R.	83.1	81.2	
n. 94			
Deceptive H.R.	85.8	85.1	

TABLE 3

Field Cases

	Men H.R.	Women H.R.
NDI Beginning	83.8	85.8
NDI End	82.5	84.4
<u> </u>		n. 795
n.1404 DI Beginning	107.4	n. 795 87.8
n.1404 DI Beginning DI End	107.4 109.0	n. 795 87.8 90.5

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TABLE 4

Grimsley & Yankee 1986, Laboratory Cases

	Male H.R.	Female H.R.	All H.R.	
NDI	80.9	85.6	83.3	n.50 total
n. 25 ea. m & f	n. 25	n. 25	n.50	
DI	92.2	89.8	91.0	n. 30 total
n. 15 m & f	n. 15	n. 15	n. 30	

TABLE 5

Barland 1981, Laboratory Cases

	HR	
NDI	69.3	n. 25
DI	73.2	n. 30

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DO YOU SWEAR THAT YOU WILL WELL AND TRULY TRY ...?

By

Barbara Holland

Trial by jury has had some ups and downs, but it beats what led up to it -- trial by combat, and ordeal by fire, water or poison

When law and order began, the only court was the head of the family group, and father knew best. His word was law and there was no appeal. If Papa was a bully, maybe Mama could pack up the kids and move to a different family. Or spike his soup with the leaves and berries her mother had told her about. In any case, what happened in the family was nobody's business but the family's.

Presently people developed agriculture and settled down, clustering together in groups of families. We acquired garden plots and portable private property--and controversy as we know it was born. Old paterfamilias still decided family matters, but coping with interfamilial strife called for group arbitration to prevent a homicidal free-for-all (or try to prevent it; the human animal has a natural taste for homicidal free-for-alls). Controversy gave birth to law.

Law is an ever-deepening pile of decisions that, once made, become permanent. This is a great timesaver. If it's wrong for A to steal B's battle-ax on Tuesday, then it's automatically wrong for C to steal D's battle-ax Wednesday, whether the matter is written down or just preserved as remembered usage. We don't need to thrash it out over and over again.

We do need to find out whether C really stole the ax, or if D just lost the thing and blamed it on C. To establish this, we check with the neighbors. Is D a famous liar? Does he have a grudge against C? Has anyone seen C chopping up Saxons with the ax? These folks are witnesses. If we find the ax under C's bed, that's evidence.

The laws are established, facts discovered, witnesses heard and judgment made. These functions have been separated in our fancier world, but in the early tribunals they were all one. The group called in to consider the matter was made up of witnesses; if no law already applied to the case, they made one that would; they talked it over and decided.

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They were all amateurs. Laws were so simple that ordinary folk could understand them. Now professionals have taken over the courts and, I hear, get well paid for it, but juries are still amateurs called in for the occasion, unattached to the system. The good thing about juries is that they're amateurs. The bad thing about juries is that they're amateurs.

Rome refined the system and separated the law from the facts. A magistrate defined the dispute, cited the law and referred the problem to a citizen judex--a fellow of some standing--who called in a few associates to help. They listened to the speeches, weighed the evidence and pronounced sentence. (Nobody was supervising them, so it helped if one of them was a lawyer, to explain.) This was more orderly than a tribunal. The Romans were passionate fond of order and wrote down all their laws in books.

They were also fond of a good public spectacle, and a convicted criminal could always opt for the arena and entertain the citizens by duking it out with other criminals or prisoners of war. A talented gladiator not only got to live, but he could wind up as a popular sports hero, surrounded by pretty ladies. The Romans loved a winner, regardless of his criminal record.

Meanwhile, the Scandinavians were gathering regularly in tribunals, called Things, dating back further than anyone remembered. Groups of delegates met to represent their districts, and committees of 12 or of multiples of 12 were picked to administer or invent the laws.

Twelve is the solemn number. When Morgan of Glasmorgan, Prince of Wales, established trial by jury in A.D. 725, he wrote, "For as Christ and his Twelve Apostles were finally to judge the world, so human tribunals should be composed of the king and twelve wise men." Maybe, though apparently Christ was following an older tradition. The number 12 crops up all over. The zodiac has 12 signs, based on 12 constellations; we divide our days into twice-12 hours; 12 midnight rings in the witching hour. We buy our eggs by the dozen and undertake semimystical cures in 12 steps. Scandinavian folktales offer us 12 princesses, trolls with 12 heads, and 12 princes changed into 12 wild swans by a troll.

Maybe 12 has ancient powers. After all, the opinion of 11 jurors is merely an opinion, but the opinion of 12 is magic, transforming the presumed innocent into the guilty like a prince turned into a frog.

So the Scandinavians gathered and chose up groups of 12. (Then as now, the parties could object if they spotted their archenemy or their victim's glowering father among the 12.) They swore to vote justly and then decided the matter according to what seemed to them to be natural rightness.

It's pleasant to think of them meeting century after century for this civilized rite of community justice, a society taking responsibility for its common good conduct. Unfortunately, Northern Europe doesn't remember the Norsemen as calm, thoughtful, reasonable fellows; the Things may have been as uproarious in practice as they were virtuous in principle. Heads may have cracked.

Do You Swear That You Will Well and Truly Try ... ?

After Rome fell apart, its former empire went all to sixes and sevens, and its orderly laws decayed into gibberish. In Britain, the possibly legendary King Arthur had to send his possibly legendary knights out to ride around righting wrongs and rescuing maidens from sexual harassment, a far from comprehensive judicial system. There were still trials, though, with an ordeal serving as jury.

Great faith has been placed in trial by ordeal, all the way from the *Old Testament* to the Australian outback. The idea is that something out there "knows" who's guilty and will point to him if given a chance. The chance usually involves fire or water or poison.

Poison was recommended in the *Bible* and was popular in Africa and Brahmanic India for trials by ordeal. Those who survived at all, though likely to be ill, were considered innocent. The Saxons developed a variation called "corsnaed," a morsel of something that would choke the guilty (perhaps their throats were dry with apprehension). Godwin, Earl of Kent, is said to have choked on his.

Under Saxon law, if you could carry several pounds of glowing red-hot iron in your bare hands for nine steps or walk barefoot over nine red-hot plowshares without getting any blisters, you were not guilty. Similar proof was accepted in Hindu and Scandinavian law. In Britain, Africa and parts of Asia, plunging your arm into boiling water, oil or lead without the usual results proved your innocence.

Water was also knowledgeable stuff. The innocent sank; the guilty floated and could be fished out and dealt with. This was the customary method of identifying witches, who were cross-tied thumb-to-toe before being thrown in. True witches refused to drown and were dried off and burned at the stake.

Alongside this undignified jurisprudence, the Saxons were actually working out a human jury system, but it was available only to the honest. If your neighbors knew you for a liar, or you'd perjured yourself in the past, or presumably, if you were a stranger just passing through, you weren't "oath-worthy" and went directly to the red-hot iron or the drowning pond. But if you were a person of known honesty in your district and were accused of a crime, you swore, "By the Lord, I am guiltless both in deed and counsel of the charge of which X accuses me," and that was that. However, if you were accused by a group, you had to parry with a group of your own, called "compurgators." You asked 11 thanes--freeholders--to join you and swear to your honesty in the matter. If you couldn't round up 11 who believed you, you took off your shoes for the hot plowshares.

In those days, honesty was the best policy. Honesty, and a loyal group of bribable drinking buddies. Ethelred, noticing this flaw, provided for a group of 12 senior thanes to investigate and act as an accusatory jury; 8 votes could convict.

Justice was still a neighborhood matter. Everyone was supposed to know everyone else and have some first-hand knowledge of what happened. Rather recently, we've turned this concept on its head, and juries are supposed to know nothing at all before they sit down in the

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box--to be but as empty vessels into which the liquor of admissible evidence is poured. In inflammatory cases, the trial even gets moved to another area to ensure the jurors' indifference.

Television's ubiquitousness makes it harder to find jurors sufficiently isolated to qualify; jurors too listless to turn TV on, too apathetic to have an opinion, and too morose even to lend an ear at the watercooler. (Nobody's actually proved that ignorance promises fairness. In fact, a study of English trials between 1550 and 1750 showed that juries overwhelmingly acquitted the people they knew and convicted passing strangers.)

A 17th-century prisoner complained that one of the jurors was a dear friend of the prosecutor's, and the judge snapped, "And do you challenge a juryman because he is supposed to know something of the matter? For that reason the juries are called from the neighborhood, because they should not be wholly strangers to the fact."

In Saxon times, a nosy curiosity about the neighbors was required by law. A regulation sometimes credited to King Alfred (not to be confused with the possibly legendary Arthur) in the ninth century divided everyone intro groups, or "tythings," of ten families who were all held responsible for one another's behavior. Canute's law read, "And we will that every freeman be brought into a 'hundred,' and into a tything." Nonmembers were outlaws; members, called "hundredors," oversaw law and order and one another's personal lives. In murder cases, if they didn't produce a culprit within a month and a day, they all paid a fine. Every man was his brother's keeper. This made life simpler for the police, but it seems to be an idea whose time has gone.

The "hundreds" were democratic, mixing the washed and the unwashed and giving the latter a voice. The county court, presided over by the sheriff, met every six months, and 12-man juries chosen for their personal knowledge of a case decided matters concerning their hundred. Below the county court was the court of the hundred, which was convened every four weeks as a local police court, keeping order and protecting rights, its juries sworn to "accuse no innocent man, nor conceal any guilty one." Disgruntled parties could appeal to the king.

Folks back then were so primitive that they thought the victim, rather than the law, had been damaged, and bodily harm was redeemed at so much for a finger, so much for an ear, all the way up to murder, which, in Alfred's time, cost 200 shillings, payable to the deceased's family. (Among the Germans it was payable in sheep.) Thieves paid the value of the stolen object plus a fine; repeat offenders and those who stole from the church paid with a hand or a foot as well.

This would mean that if someone broke your arm while stealing your car, he paid for your arm and your car, and you got to keep the fine and possibly his foot too. Now he just goes to jail, and you get to pay for his room and board with taxes. Progress has been made.

When Right Made Might

When William the Conqueror took over England in 1066, he left the Saxon system in place and added some Norman flourishes, like trial by combat. Combat was a judicial entertainment similar to the gladiatorial, in which right was thought to make might--whoever was right would win. The accuser had to do battle with the accused, causing the small and frail to think twice before complaining, but if you were no good at fighting you could hire someone to fight for you. The man with the fiercest hired help won--rather like hiring the most expensive lawyer today.

(Ordeals fell into disuse in the 13th century, but the right to trial by combat stayed on the books until *Ashford v. Thornton* in 1819.)

By Norman times, laws were more complicated, so professionals, called justiciars, were sent around to keep an eye on the courts and the rules of evidence, rather like judges. They knew more about the law and less about what had happened than the jurors did.

We were told in school that jury trials sprang newborn from the Magna Carta, but juries were around before 1215. The Magna Carta just guaranteed them as a right not to be ignored by capricious powers like bad King John, but some kings went right on being capricious anyway. In these enlightened times, we merely torch the neighborhood if we don't like a verdict, but back then, juries got punished if the authorities didn't like it. Since juries were still considered witnesses, a wrong vote was considered perjury. Acquitting unpopular or possibly treasonous people got jurors hauled into the star chamber, where a group of the king's dear friends dealt severely with them. They lost their goods and chattels and went to jail for at least a year; sometimes their wives and children were thrown out of their houses, the houses demolished, the meadows destroyed and even the trees chopped down. A prudent jury weighed factors other than the evidence. (It was also the custom for the winner to pay each juror several guineas and take them all out to dinner.)

Humans being cantankerous, jurors occasionally votes their consciences anyway. Sometimes they even voted against the law. Juries have always given justice a bit of purely human wiggle-room. If they don't buy into the law as written, they can pummel it into shape-and a law under which nobody gets convicted eventually starves to death.

In 1650, under Cromwell, a newly reinstated law calling for hanging adulteresses--and scarcely an adulteress was found in the land. In 1670 William Penn was tried for preaching Quaker doctrine, and he couldn't have been guiltier, caught red-handed and far from a first offense. The jurors stubbornly found in his favor and were fined 40 marks apiece for wrongness. Four of them refused to pay and spent a year in prison, until one was brought before the court on habeas corpus, and lo, it was decided that the law couldn't jail jurors for their decisions. We can't put them in jail anymore, but we can select them half to death.

As we limp toward the 21st century, the rural community of nosy neighbors has faded into history, and the problem now is, Who are these jurors? Prince Morgan called them "wise men."

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Under Edward I, they were to be 12 of the "better men" of the bailiwick. Under George IV, "good and lawful men." (Except for adulteresses, witches and common scolds, legal history doesn't mention women; perhaps they're a recent invention.) It seems to have been so simple then, naming our good, wise, lawful peers. But how do we choose among strangers not necessarily wise but merely registered to vote?

Once the blatantly prejudiced have been sent packing, both sides take up the peremptory challenge of turning down jurors for the way they look, dress or comb their hair. A new professional has spring up among us, the jury-selection consultant. For the O.J. Simpson trial, consultants submitted an 80-page list of 294 questions for prospective jurors, including essay questions like "What do you think is the main cause of domestic violence?" The theory is that we ordinary citizens are such a bunch of sheep that we'll always vote according to our hind, regardless of the evidence. The more narrowly the consultants can identify our kind, the easier it is to predict the vote.

The differing agendas of the prosecution and the defense complicate matters. Prosecution lawyer Jeffrey Toobin says that when he first came to the bar, he was always told to avoid men with beards (too independent) and teachers and social workers (too sympathetic), and aim for "the little old Lutheran lady in pearls, quick to judge and slow to forgive."

For the defense, Clarence Darrow advised not to "take a German; they are bull-headed. Rarely take a Swede; they are stubborn. Always take an Irishman or a Jew; they are the easiest to move to emotional sympathy." He preferred old men for their tolerance, but Samuel Leibowitz liked them young for their still-fresh sense of brotherhood and avoided self-made men, businessmen with close-set eyes, writers, professors and former policemen.

In his recent book, *We the Jury*, Jeffrey Abramson recommends a patchwork, arguing that the soul of the jury rises out of its diversity, the alchemy of a "collection of wisdom," as people of various ages, classes and backgrounds rub their conflicting viewpoints together to shape a consensus that represents us, the people. (Whether we're levelheaded enough to deserve representation is another matter. Last year an English jury convicted in a murder case after receiving a message from the deceased on a smuggled Ouija board. But hey, we're all we've got.) Abramson, anyway, has faith. He even agrees with Chief Justice John Marshall who once said that it's all right for jurors to have read the newspapers.

Whatever it may read or watch, the modern jury doesn't know what it was designed to know--its neighbors--and a clever lawyer can sometimes play on it as upon a harp. Such was William Howe of Howe and Hummel, defender of the underworld in rowdy post-Civil War New York. Howe was an enormous, lion-headed man with a wardrobe of costumes for his courtroom performances and a talent for crying copiously over any case, however dull. Once he delivered an hourlong summation, kneeling before the jury. Another time he convinced a jury that his client's trigger finger had accidentally slipped, not once but six times. So many of his clients were forgers that his office accepted only cash, so many were thieves that his office safe contained nothing but a coal scuttle--but murderers were his meat and drink. He personally appeared for more than 650 of them. He virtually invented "temporary insanity." He wept; the

jury wept. According to a newspaper account, during his defense of Annie Walder, the "Man-Killing Race-Track Girl," the "sobs of juror nine could have been heard in the corridors, and there was moisture in the eyes of all but one or two of the other jurors."

Howe kept a stable of white-haired mothers, distraught wives and cherubic children available to represent the family of the accused. He once pointed out his own wife and child, who happened to be in the courtroom, as his client's prospective widow and orphan. How would a New York jury know? And how the hometown jurors of old would have laughed.

Here and there a voice suggests returning at least minor offenses to neighborhood judicial counsels, as in the old courts of the hundreds, taking the law into our own hands where it began. This may be utopian. We don't want to know our 99 nearest neighbors, let alone be accountable for their behavior. Some of us don't even want to read the papers. We gripe about the results, but we leave civil order to the professionals. It wasn't designed to work that way.

British lawyers tell the story of a jury in New South Wales that was considering the matter of some stolen cows, about which the jurors certainly knew more than the court would ever learn. After deliberating, they returned a verdict of "Not guilty, if he returns the cows." The judge was outraged at this insult to the law and threw them back out to think again. Pigheaded and mutinous, they returned with a new verdict, "Not guilty--and he doesn't have to return the cows."

Perhaps justice, if not law, was served.

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FALSE MEMORY SYNDROME vs. TOTAL REPRESSION:

ONLY POLYGRAPHY CAN KNOW

By

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Abstract

A significant dispute exists among mental health professionals in the realm of sexual abuse of children. Recently, much is heard of adults who have repressed for years the memory of having been abused as children only to recall it in therapy. While clinicians have generally accepted this as factual, experimenters have questioned the validity of these memories. Because the alleged abuses have occurred years before, it is impossible in most instances to determine whether these offenses have actually occurred. Research through the polygraph testing of alleged abusers is the only direct way that a determination can be made as to the extent of validity of these accusations.

Polygraphists are going to receive more requests for testing of this nature from both alleged abusers and victims as civil litigation increases. There is, however, an even greater need for research in this area and polygraphy can be of considerable assistance to mental health professionals and the courts in solving this problem.

A major debate is occurring within the American Psychological Association and American Psychiatric Association regarding the concept of total repression. While the sides are not clearly delineated, clinicians tend to favor the idea that complete repression can occur in some children who have been sexually abused. In their opinion, amnesia can persist well into adulthood when recall may be stimulated by a dream, a similar experience, or as a result of therapy. Many mental health specialists accept the accuracy of these recollections based upon their patient's dramatic emotional responses. To corroborate the validity of total repression, Briere and Conte (1995) evaluated the responses of many adults who had been sexually abused as children. When

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they were asked if there were ever a time between when the offenses occurred and their eighteenth birthday that they had no memory of the abuse, fifty-nine percent responded in the affirmative. Briere offered further evidence of total repression through findings obtained in both world wars. (Briere 1993) There were soldiers who took part in particular battles who had no memory at all of having been part of it. In a study by Williams (1992), of one hundred women who had gone to an emergency room as children because of sexual abuse, thirty-eight percent had no recall of it when they were questioned later as adults.

The opposing side question whether an individual could be sexually abused for years, sometimes into adolescence, and have absolutely no memory of it. This group favors the concept of faulty memory syndrome. This is a term that was coined by individuals who have been accused of sexual offenses that allegedly occurred years before. It is their belief, and that of a number of scientists, that these are fictitious memories inadvertently suggested by mental health workers and strengthened further by their roles as authority figures. Therapists, in attempting to reach the core of their patients' problems, have used hypnosis, visual imagery, dream analysis, or the so-called truth serums. It is quite conceivable that approaches of this nature create an even greater suggestibility in a person, thereby opening the door to incorporating fabricated memories into the mind. There is a wealth of data showing the impact that suggestions have on memory. Loftus (1993), a psychologists specializing in memory, has demonstrated that based on the manner in which questions are asked: People will recall red lights that did not exist; alter their estimates of the speed of a car; and even remember a mild trauma, such as becoming lost as a child, that never occurred. This is particularly the case when hypnosis is used, since individuals are more suggestible in this state.

Opponents also emphasize the effect of such literature as the book by Bass and Davis (1988) *The Courage to Heal*, a book that is considered to be the *Bible* of the abused. In it, the authors make the following statements: "If you feel something happened to you, it probably did ... if you think you were abused and show symptoms, then you were." The symptoms listed, however, are no different than those experienced by patients who have not been offended sexually. Other writings by Fredrickson (1992), state that millions of people have repressed childhood traumas.

While it is not clear as to the stand that the two groups take related to the degree of total repression that exists, it can be assumed that those who favor the concept do not believe that every recollection of abuse is a true memory. Likewise, for those who oppose the view of complete repression, one can assume that they do not believe that every case is a false memory. Loftus indicated that estimates of repressed childhood abuse range from eighteen percent to fifty-nine percent.

In any study, weaknesses exist, and each group minimizes the findings of the opposing side. Both groups feel that the role that the other group plays is destructive. Those who believe in repression say that labeling this as a false memory weakens the position of those victims who are learning to deal with what has occurred and it inhibits others from bringing these memories out and coping with them. On the other hand, those who believe that the false memory syndrome exists, are concerned because the alleged abusers become victims as the reported accusations impact on their reputation, jobs, and family relationships. There is also concern because of the damage that is being done to the mental health profession in general and the negative picture that is being created of therapists and therapy. Jaroff (1993), writing in *Time* stated that, "Repressed memory therapy is harming patients, devastating families, and intensifying a backlash against mental health practitioners."

The confusion that exists is being reflected in the courts as well. Twenty-three states have lifted their statute of limitations in civil cases and they are following the principle of delayed discovery (Skeptics ... 1993). Now civil suits can be filed up to three years after the victim remembers the alleged sexual abuse. This means that victims are suing alleged perpetrators for acts that may or may not have been committed twenty or thirty years ago. However, some of those who have been accused are suing therapists for destroying their family and their reputation. There are also some victims who have recanted, feeling that their recall of abuse in treatment was not real, they too are bringing legal action against their therapists. In the criminal versus the civil side of the law, in Oregon, the statute of limitations has been extended so that criminal charges can be brought against a perpetrator up to the age of twenty-four.

This has a number of significant implications for polygraphy. Because of the U.S. Supreme Court decision in *Daubert v. Merrell Dow Pharmaceuticals* (1993) and *United States v. Piccinonna* (1989), it is anticipated that polygraph testimony will be admitted into evidence to a much greater extent in the years to come. Therefore, there also are going to be more requests to become involved in sexual abuse cases in which total repression plays a role. Because of the statute of limitations existing in the criminal courts, it can be assumed that the majority of these cases will be heard in the civil courts. Those who have been accused will seek testing in an attempt to prove their innocence, but it is also possible that they might want to be examined in order to strengthen their case against a therapist. Some of these individuals will wish to be tested simply in the hope of proving to their accusers or their families that the alleged offense never occurred.

An occasional victim will contact a polygraphist in order to strengthen his or her case against an alleged perpetrator, but they might also see it as helpful if they have recanted and are involved in litigation against their mental health specialist. It is our opinion, however, that as in most confirmatory tests, it is a difficult examination and should be avoided.

In evaluating abuse cases in which repression plays a part, it is very likely that this may consist of a different population than those where the victims have always been aware of the abuse. The senior author has tested hundreds of alleged sexual abusers and obtained deceptive findings in about eighty-five percent of the cases. In contrast to that, very few cases associated with repression have been seen. Only three women, assumed to be victims were examined, and all three of them failed the test. Because they seemed so believable and because they were still involved in reliving their experiences in therapy, it was felt that they were not fit subjects for testing. Much later, five men who were allegedly perpetrators of abuse that occurred years before were examined and every one of them was found to be truthful. Other examiners, however, have not found the same degree of truthfulness in cases of this nature. There is another major role that polygraphy can play in this realm. Although the American Psychological Association is forming a Blue Ribbon Committee to study total repression, it is virtually impossible to document whether sexual abuse did or did not occur years before. Therefore, the Psychological Association can only evaluate this issue indirectly, by such research methods as were reported earlier in this paper. In direct contrast to that, polygraphists can test the alleged perpetrators and determine the degree of truth or deception that exists. Data of this nature could be highly valuable to the American Psychological and Psychiatric Associations. However, both of these associations have been influenced by the *OTA Report* (1983) and they need to become more aware of current polygraph validity. The study by Patrick and Iacono (1987), who reported complete accuracy for the deceptive and ninety percent accuracy for the truthful is important information for them. Of more value is the review of ten validity studies by Ansley (1990), who reported ninety-seven percent or higher validity obtained on both truthful and deceptive subjects.

Research on refreshed memory cannot be determined by evaluating the results of individual cases, but rather by a systematic study. Because of the difficulties associated with confirmatory testing, it is felt that the subjects should be the alleged perpetrators rather than the victims. It is likely that this will be a somewhat biased sample since they are willingly seeking testing, but of course most defense attorney referrals are volunteering to be examined and the majority of them fail their tests. Another weakness is that the polygraph is not infallible, but the accuracy could be raised by expanding the inconclusive range.

Regardless of the weaknesses, if some picture could be obtained as to the extent of the abuse associated with repressed memory that actually did occur, this would be most valuable information. If the percentage of actual abuse were found, it would have many implications for the treatment that is occurring. If, for example, the abuse rate were low, it would bring into question some of the therapeutic techniques that were being used.

In summary, the debate about the validity of formerly repressed memories is of great significance to the mental health profession. Some of the research demonstrates that total repression can occur, but it is not known how common an occurrence this is. If it is infrequent, the implication is that many patients are being inappropriately treated and many alleged perpetrators are being falsely accused. Polygraphy is in an excellent position to make that determination and provide a considerable degree of assistance to the mental health community, patients who possibly are being treated inappropriately, and to the alleged offenders who could be innocent. Since litigation in this area is growing, polygraphy could be most helpful in serving as a friend to the court.

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