Polygraph

VOLUME 35 2006 NUMBER 3

Contents

Published Quarterly

P.O. Box 8037, Chattanooga, Tennessee 37414-0037

How to Use the Concealed Information Test[1]

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Abstract

The Concealed Information Test (CIT) is the most researched and validated method available to polygraph examiners. This article is a step-by-step guide intended to educate novice and experienced polygraph examiners how this useful technique can help them resolve cases in the field. It outlines how to set up conditions to maximize its utility, design and conduct the testing, and analyze the results.

Introduction

There are two principal approaches to psychophysiological detection of deception (PDD): deception tests and recognition tests. Deception tests are the most commonly used, and they include the Zone Comparison Technique, the Modified General Question Technique, and the Relevant-Irrelevant Technique, to name a few. Recognition tests include the Searching Peak of Tension, the Known Solution Peak of Tension, Acquaintance Tests, and the Concealed Information Test (CIT, the current name for what had formerly been called the Guilty Knowledge Test). Figure 1 displays a taxonomic organization of the main PDD approaches.

Of the methods outlined in Figure 1, the least utilized by field polygraph examiners is the CIT (Suzuki, Nakayama, & Furedy, 2004). However, the CIT has the best theoretical foundation of any of PDD method, and more theoretical validation research than all other methods combined. First introduced by David Lykken (1959, 1960), the CIT can prove to be an important tool in the inventory of polygraph examiners. This article is a practical guide for using the CIT in the field, to familiarize both the experienced examiner and the polygraph student in the CIT methodology.

The CIT is typically used in an adjunct capacity, though examiners may use it as a primary technique. It can provide additional support for the decision based on a Comparison Question Technique (CQT), and can serve as a powerful tool in the posttest interrogation. The CIT is especially useful in circumstances where the Comparison

[1]Instruction Note

The American Polygraph Association (APA) authorizes the unlimited reprinting of this article to all APA-accredited polygraph schools when used in conjunction with initial and continuing education of polygraph examiners.

We are very grateful to Marilyn Dooley for the graphics in this article and to Jamie Brown of Limestone Technologies, Inc. for contributing the photograph of the visual monitor for the CIT. Donald Krapohl is a regular contributor to Polygraph, James McCloughan is a polygraph examiner and Detective Sergeant with the Michigan State Police, and Stuart Senter is the Editor-in-Chief of the American Polygraph Association publications. This article is one in a series titled Best Practices. The views expressed are those of the authors, and not necessarily those of the US Government, the Department of Defense, or the Michigan State Police. Requests for reprints should be directed to the first author at dkrapohl@aol.com, or PO Box 10411, Ft. Jackson, SC 29207.

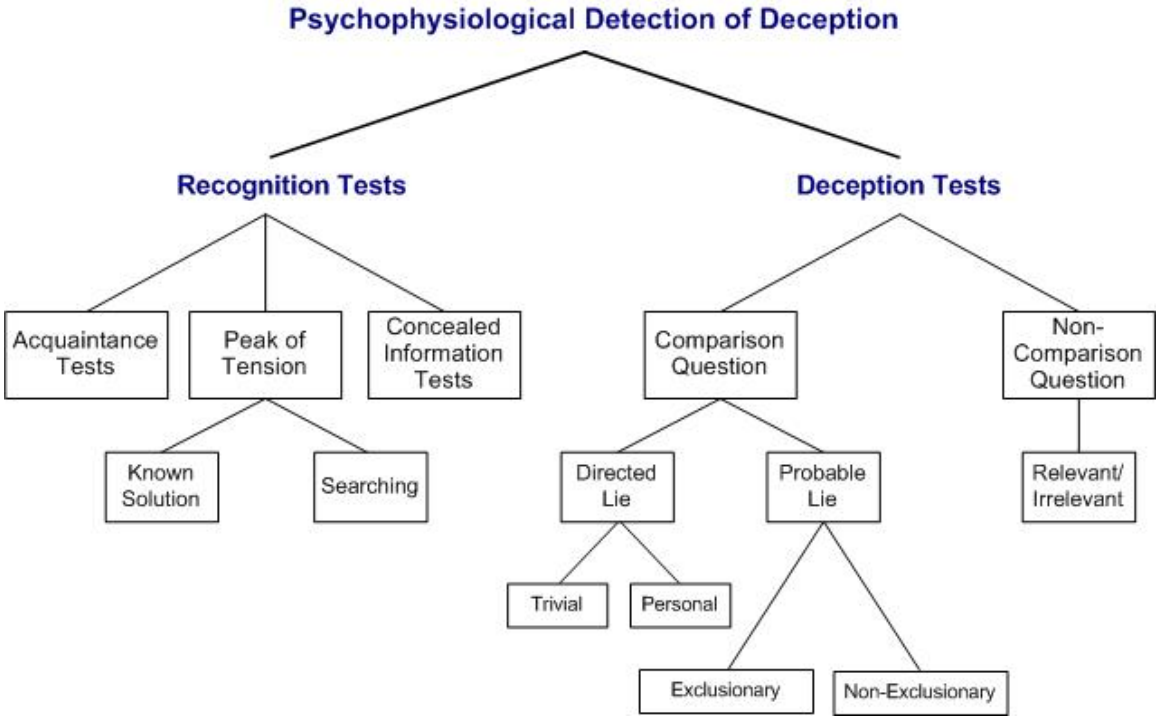

Figure 1. Taxonomic organization of the major PDD methods.

Question Technique may produce less than optimal results. For example, police polygraph examiners are sometimes compelled by their senior officers to conduct a polygraph examination of someone who has been interrogated extensively. One might expect, considering the current CQT theory, that a suspect who has been interrogated for hours before a polygraph examination would react to the relevant questions irrespective of his guilt or innocence. This is why every examiner is instructed in polygraph school to avoid testing suspects under these circumstances. However, if the examinee has not been told all of the details of the crime, the CIT can still be conducted even after an interrogation.

Similarly, law enforcement polygraph examiners are sometimes directed to test the veracity of an individual shortly after the murder of a loved one. Conducting a CQT examination of a distraught family member presents tremendous challenges both in comparison question development and in interpreting the charts. A CIT has a better chance of producing accurate results under these conditions than does a CQT because of the lack of potential emotion invoking questions (e.g. Did you stab your wife). (Lykken 1959, 1960) The CIT also takes less time to conduct (approximately one hour), is less intrusive, and provides one more tool to the competent polygraph examiner.

This CIT guide is divided into seven individual steps: Educating Investigators, Gathering Information, Constructing CITs, Pretest Practices, Testing, Scoring Rules, and Decision Rules. We recognize that there are other methods for approaching the CIT that may be equally useful and valid. The method outlined in this article satisfies all of the critical components of the CIT.

Educating Crime Scene Investigators

The successful application of the CIT relies heavily on the input and information derived from the crime scene investigator, as this individual provides the foundation upon which the CIT is to be developed. Teaching investigators how to use the CIT as a tool in their investigation is not a difficult task. The CIT is quite easy to teach and takes less than a couple of hours to present it from beginning to end. The task of getting the investigator to use what they learn about the CIT represents a greater challenge.

Most law enforcement officers learn as trainees how to dust and lift fingerprints, take proper evidentiary photographs, preserve and collect footwear and tool mark impressions, and other technical skills when they are in their law enforcement training academy or through their respective departmental training programs. Polygraph orientation is sometimes included in these training areas but is usually introduced as a means to an end following a thorough investigation, and typically only the CQT approach is provided. One way to foster the use of the CIT technique by investigators is to introduce it when they are just starting their professional training. This way the CIT becomes a habitual approach that is integrated into their investigative repertoire from the outset, before they become settled into a particular method of operation. However, increased implementation of the CIT approach by investigators will take time to develop, as newly trained and educated officers will slowly fill the ranks. Seasoned officers are impacted only in a secondary capacity, perhaps when they become training officers or when they are open and exposed to new methods they see used successfully by others.

Veteran officers are more likely to be receptive to this training at advanced training schools (e.g.. basic homicide investigation, crime scene technician, polygraph, etc.). Whatever stage the training is to be introduced, it is imperative that the training be consistent. Also, whenever there are changes or corrections made to the training program, they should be provided to those who have already received the training. For the actual training procedure, a program can be extracted from the material provided in this article. Training the investigator in the elements of the CIT is no different from training the polygraph examiner. They should be exposed to all aspects of the approach, ranging from the conceptual theory to the nuts and bolts of the decision process.

Once officers are trained how to use the CIT, they actually need to apply the approach under field conditions. One way to get investigators to use the CIT is to stress their involvement in the process. When law enforcement officers or investigators have an attachment to a procedure they are more likely to embrace and use it. A fingerprint examiner compares the fingerprints to see if they match the unknown latent lifts, but their success is largely dependent on the investigator's ability to properly collect and preserve the fingerprints. The same principle holds true with the CIT. The investigator's ability to properly choose and conceal the critical information has a significant effect on the successful application of the CIT. Another sales point is that the CIT can be utilized at the beginning of the investigation. Most investigators have more than enough activity to fill their time and any procedure that can aid them in clearing up an investigation more expediently is usually welcomed with open arms.

The last reason for engaging investigator support for the CIT is probably one of the best (if not *the* best) reasons to use it: the admissibility of the CIT as evidence in court. Much of that which has discouraged courts from admitting the CQT as evidence is remedied by using the CIT. (Ben-Shakhar, Bar-Hillel, & Kremnitzer, 2002) It has been generally accepted as being founded on sound scientific theory, produces a known error rate, and does not offer findings that would overwhelmingly prejudice a jury to give it undue weight over other evidence (Daubert v. Merrell Dow Pharmaceuticals, 2003).

Gathering Information

Similar to the Peak of Tension, the CIT requires that the innocent examinee be naïve regarding the details of the crime that are to be included in the test. These details are referred to as keys, and protecting this information is critical to the success of the CIT.

The best practice for finding and securing this vital information is for the examiner to be involved early in the investigation. When an examiner has the opportunity to visit the crime scene or to participate in the investigation from its onset, it allows for a construction of the CIT with the investigators and reduces the probability of information leaks. This early involvement helps secure critical information and ensures that is not to be released to anyone but those

individuals responsible for working the investigation. This makes sense when put into context. One would not readily complete a criminal investigation and then call out forensic specialists to a crime scene to dust for prints and search for other physical and trace evidence months after the crime and after an unknown number of persons have potentially tainted the scene.

At the scene, the examiner works with investigators to classify the crime (e.g., larceny, homicide, etc.) as well as the criminal mind of the individual or group that committed the crime. If available, a criminal psychologist and/or criminal profiler should be used with the investigative team to help classify the aforementioned psychological aspects. Knowing your suspect facilitates choosing the appropriate information to gather, as the best key information is not always the statutory requirement of the crime, but rather information that is concealed and salient to the person(s) who committed the crime. It is also the most vulnerable aspect of the technique, where false negatives may occur, due to the selection of ineffective key information.

Documentation is important for the CIT as it is with the collection of any type of forensic evidence. Thorough field notes and photographs can help resolve questions in a review or judicial setting when the concealment of the key information is in dispute. Photographs may also be used to construct a visual presentation of a key test, which will be discussed later in this article.

Visiting the crime scene is not always practical in the field, as examiners often conduct cases for other agencies which prevents them being involved in the investigation process. Alternatively, the crime under investigation may not warrant their involvement in the early stages. Predominant law enforcement practices use examiners to conduct a polygraph at the end of an investigation. Although the process of finding key information is much the same as collecting at the scene, the examiner is now limited mostly to the investigative report and the investigator(s) to extract key information for the CIT. If there is ample time between the scheduling of the exam, one could also enlist the aid of a criminal psychologist or criminal profiler, for the purposes of developing additional key information.

Gathering information needed to construct the CIT at the later stages of an investigation is sometime thought to be a time-consuming process. In reality, finding useful keys can be quite easy, albeit societal or methodological variables might diminish the number of amendable cases. (Podlesny, Nimmich, & Budowle, 1995; Podlesny, 2003) Often there are details of a crime or crime scene that are not relevant to the "statutory requirements" of the crime, but are quite salient to the person who committed the crime. For instance, in a breaking and entering crime commonly the most memorable portion of the crime is the entry, followed by the exit. The entry is usually a "rush" for the criminal. Many examiners have heard criminals claim that it is a "high" for them. Thus, it is not that key information is difficult to find, but rather that examiners must change the way they review the investigation. Sometimes simply asking the investigator if there are any peculiar facts about the case can unveil a potential key. The critical factor is that the item or act we choose to test must be memorable to the person who committed the crime. Picking memorable items or acts might be achieved by utilizing a criminal psychologist and/or criminal profiler, as previously mentioned, or simply utilizing investigators' anecdotal knowledge gained through interviews with people whom committed specific criminal acts.

The following case demonstrates a successful implementation of the CIT in an actual field investigation. The content has been altered to protect identification and confidentiality of the subject and investigation. A polygraph examination is scheduled for a suspect in multiple residential break-ins. The strategy in these crimes was to cut the phone line, kick in the back door of the residence, steal electronics, and then exit the residence via unlocking the front door. Potential keys in this case are: the phone line, entry by the back door, a kicked-in door, stolen electronics, and an exit by unlocking the front door. These key items are then presented in a list of details that do not apply to the crime, known as control items. In the next section we will take

the information we have gathered and insert it into the CIT framework.

Keep in mind that at this juncture there are many different ways that proposed concealed information could have been legitimately leaked to the subject being tested. To ensure that the areas of questioning are still concealed, strict measures must be taken to prevent the possibility of misclassification. A three-step process toward this goal is provided in the section entitled Pretest Practices.

Constructing CITs

It should first be acknowledged that there are several acceptable methods of constructing a CIT, so long as the essential requirements are satisfied. Each CIT includes one key item embedded among several control items. For example, the key item could be the murder weapon that was used in a homicide, with the control items being other plausible murder weapons that are not related to the crime in question. A non-key item is always placed as the first item in the sequence, and; the key item is randomly placed in the list after that point. Again, the key item must be something that the perpetrator is most likely to have paid attention to, and be able to recall during testing. The control items must be as plausible for the innocent examinee as is the key item. A CIT can be made up of one or multiple key item examinations. However, users should strive to include three or more independent CITs, as this can provide a more acceptable probability of false positive. (See Table 1) If all of these prerequisites in place, an acceptable CIT will result.

Our preferred approach to the CIT is to use one key and five control items per test. More or fewer control items can be used, and there are some advantages to having more rather than fewer. Our favored method of using five control items per CIT results from an inclination toward simplicity: calculating error probabilities is easier, and there is more discussion of this later in the article.

If one used the real life example described earlier, one might construct CITs like these:

A. If you are the person who broke into the house, you know where it was entered. Repeat after me these areas of entry.

1. basement window
2. garage door
3. bathroom window
4. front door
5. back door (key item)
6. bedroom window

B. If you are the person who broke into that house last night, you did something on the property just before entering the house. Repeat after me these actions.

1. Broke a window
2. Cut the phone line (key item)
3. Tied up a dog
4. Climbed the fence
5. Damaged a birdbath
6. Broke the porchlight

C. If you are the person who broke into the house, you got in using a particular method. Repeat after me these methods of entry.

1. Screwdrivered the lock
2. Crashed brick through window
3. Hacksawed the padlock
4. Kicked in the door (key item)
5. Sledgehammered the hinges
6. Picked the lock

D. If you are the person who broke into that house last night, you stole something. Repeat after me these items.

1. Shotgun
2. Credit cards
3. Bottle of vodka
4. Coin collection
5. Necklace
6. Television set (key item)

E. If you are the person who broke into that house last night, you escaped through one of these exits. Repeat after me these exits.

1. Basement window
2. Garage door
3. Front door (key item)
4. Patio door
5. Bathroom window
6. Bedroom window

CITs can also be conducted using visual stimuli. Instead of presenting words or phrases aurally, a CIT can be conducted visually using photos of objects, scenes, and faces. As with the more traditional CIT, visual presentation of the items would have to meet the basic requirements stated earlier (one key per test, random ordering within tests, all items similar in theme, plausibility of all items, etc.) As examples of stimuli for the visual CIT, an examiner could use the crime scene photos from the crime of interest, and select equivalent photos from other crime scenes where the suspect could not have been. The photos could show the entry point the perpetrator used, any articles he left behind, faces of victims, location from where stolen objects had been taken, or any other scene that investigators are confident must have been seen by the perpetrator but not by the person who is innocent.

Special care must be taken with visual stimuli in the CIT because pictures can carry more information and distractions than words or phrases. Common sense dictates that users should try to control the illumination level of the images, strive to ensure that they carry similar emotional weight (especially when displaying images of bodies), and standardize as much as possible the images in terms of size and coloration. Examiners must also be confident that the examinee is looking at the pictures during the data collection process. Figure 2 shows the set up for the CIT using photographs displayed on a computer screen that is controlled by polygraph operating software. It is also possible to use slide projectors or other means to present the images.

In previous works it has been recommended to position the examinee so that their field of view did not include the polygraph instrument (Abrams, 1989; Matte, 1996; Reid & Inbau, 1982). This requirement was conceivably based on the hypothesis that the analog instrument's visual and audible response to an examinee's answers might introduce an additional psychological stimulus to the examinee. The visual and audible stimuli might cause a more or an additional response. The now commonly used computerized polygraph instruments do not have these components. With the heightened threat of countermeasures that is present today, it is now hypothetically more beneficial not to place the examiner in a position that would hinder their optimal visibility of the examinee. A dorsal position would most indubitably do just that and much pertinent information might be missed.

Figure 2. Example of how visual stimuli can be presented in a CIT. (Photo courtesy of Jamie Brown of Limestone Technologies, Inc.)

Pretest Practices

The pretest of the CIT is typically brief but important. First, the examinee is presented with an overview of the entire process of the CIT, as would be done in a CQT, but covering CIT elements. Next any necessary pre-pretest forms (i.e. waivers, medical background, etc.) should be completed.

After the paperwork is complete, the examinee is told that he or she will be undergoing a knowledge-based examination and that it will be necessary to determine whether the areas to be tested are known to the examinee. Examinees should be asked to write everything they know about the incident under investigation and how the information was learned. This is done to avoid conducting an examination where the correct answer is already known. The source of information can be later checked for its veracity. The examinees should be reassured that mere knowledge of the information does not mean that they have committed the crime under investigation and that there are frequent instances when others involved in the investigation leak information (i.e. investigators, victims, witnesses, media, etc.). It should be stated that it is your goal as the examiner to conduct a fair examination and to eliminate any potentially corrupted data. This process represents the examiner's first step to ensuring that the key information was concealed from a possibly innocent examinee.

After the examinees have completed the written statement of knowledge, the second step of confirming the concealment of the key information should commence. In this step, the information that the examinees have written should be orally reviewed. The examinees must verbally commit to this information as their only knowledge of the crime. If additional information is produced in the verbal review, that new information and its source should be documented on a new sheet of paper. It should be noted that if at any point the examinees indicate that they have knowledge of a potential key, the CIT using that item should be eliminated from the test.

Once the examinee has committed to have no further knowledge of the crime, the remaining keys are proposed and presented in a general question form in the third and final confirmation step. Prior to completing the third step, it is important to familiarize the examinee with the instrument and the CIT procedure.

At this point describe the instrumentation just as with the CQT. However, the explanation of the procedure and what we are looking for is somewhat different from the traditional CQT. The foundation for the CIT is the orienting response/reflex theory (O'Gorman, 1979; Siddle, Kyriacou, Heron, & Mathews, 1979; Sokolov, 1963, 1966; Verschuere, Crombez, De Clercq, & Koster, 2004). When a person is involved in a significant event, a memory of that event is created. If presented with information that is salient because it is linked to a memory of the event, his or her body will have an orienting response to the key. Because an innocent person does not have a memory of the event, all items will seem plausible and there will be no unique reaction to the key. When the orienting response is elicited, the physiological channels we are monitoring will show responses, which is the same effect observed in the acquaintance exam. Obviously some of the information and terms used here are for technical discussion and must be tailored to the level of sophistication of the examinee.

Next a practice examination is conducted to acclimate the examinee to the instrumentation, the examiner's voice, and ensure that the examinee can properly follow the movement and answering instructions. The acquaintance test is conducted as with the CQT but the examinee is instructed to answer each question by repeating the alternative ending. For example; "Regarding the color of your shirt today, is it red?" The examinee says red. In this way, the examinee becomes accustomed to the CIT question and answer process.

The final step to verifying that the keys were properly concealed takes place just before the data collection phase. In the CIT, each key item test is a separate test in and of itself. Before every test the examiner reads the general question that is to be asked and informs the examinee to repeat the alternative ending. For example; "Regarding where the house was entered, was it the _____?" At this

time the examinee is simply asked, "And you don't know the correct answer to that question, do you?" If the answer is still "no", then you may proceed to conducting the test. If the answer is "yes", you document the information, from where or whom it was obtained, and eliminate that key. Note that only the question is reviewed in the aforementioned example but it may be prudent to refer to the state or federal laws/policies that regulate polygraph use on this issue. Some standards or laws may require that all of the stimuli, including the various endings, need to be reviewed prior to the data collection process. Standards governing polygraph use in the Federal Government require that all stimuli (including the alternate endings) must be reviewed prior to data collection.

Testing

During the testing phase the examiner is in essence conducting multiple tests on a single incident. As previously stated, each key item that is tested is a separate test. There are essentially two parts to the testing phase; reviewing the stimuli and conducting the test.

Stimulus review is self-explanatory. Remember to verify from the examinee that he or she does not know the key stimulus from the control stimuli in the list. Reviewing the stimuli before testing serves multiple purposes. The review process serves to ensure that the examinee understands all of the stimuli and how you pronounce the stimuli, and it affords the examinee an opportunity to identify any problematic items. For example, one or two irrelevant items might hold significance to the examinee, a factor that could affect scoring. The examiner must correct those items, or drop that test. There should be no emotion-evoking stimuli in the CIT. Most professional standards require that you review the questions with the examinee.

Stage two is the conduct of the test. It is recommended that each key item test be presented only once. If your state law requires at least two presentations of the same question (e.g. Texas), there is nothing wrong with the presentation of each key item test more than once, as this procedure has also shown to be effective (Ben-Shakhar & Elaad, 2002; Ben-Shakhar, Gati, Ben-Bassat, & Sniper, 2000; Elaad & Ben-Shakhar, 1997). However, multiple presentations do change the probability table from the one provided in this article with each successive presentation.

When conducting the test, it is important that you read each item with the same voice inflection. This helps eliminate the potential that a subject might erroneously identify the key. If you have problems with keeping your voice consistent and your instrumentation has the capabilities, consider using a computer generated voice to present the questions. Some of these programs have different voices from which to choose. After you have completed the recommended or required presentations of the key item test, the process is repeated for each key item test until all have either been administered or eliminated for other reasons (i.e. subject knew the key). Once all of the key item tests have been completed, you are ready to score the examinations.

Scoring Rules

Of the several available scoring regimens for the CIT, the most researched method is Lykken Scoring (Lykken, 1959). In fact, Lykken Scoring has been used in every CIT research study published to date that analyzed physiological responses. It entails the ranking of the electrodermal response (EDR) amplitudes from 2 to 0. If the largest EDR takes place on the key item, the score for that test is a 2. If the second largest EDR takes place on the key item, the score is a 1. All others are scored 0. Reactions to the first buffer are ignored.

To illustrate, refer to the polygraph chart in Figure 3. If the key item on that test was number "3", that test would be scored a 2. If the key item was number "5", the test would be scored a 1. If the key item were numbers "2", "4" or "6", the score would be a 0.

One should note that there are other physiological channels that were not scored. The scoring of the pneumograph has been proposed using respiration line length (RLL) (Timm, 1982a) and supported in subsequent research ((Ben-Shakhar & Dolev, 1996; Elaad, 1994; Elaad, Ginton & Jungman, 1992; Nakayama & Yamamura, 1990; Timm, 1982b).

A scorer must have a means for measuring RLL, such as a planimeter or software. There is a two-fold challenge to scoring the respiration channel, however. First, respiration is a process over which the examinee can exercise considerable control. Consequently, scorers should have less confidence in scores that result from this channel. Second, examinees vocally respond to the test items, a behavior that can interrupt the pattern of breathing during the window in which the pattern would be analyzed. Some portion of the RLL can be attributed to the break in respiration pattern that occurs during the verbal answer. For these two reasons, examiners who choose to score the respiration channel with the CIT should not rely heavily on the scores for decision making.

Other research supports the scoring of other physiological channels. There are findings related to heart rate deceleration (Adachi & Suzuki, 1991; Verschuere, et al., 2004) that were suggestive, but the effect was small. Moreover, most polygraphs do not display pulse rates in a manner that allows easy scoring. A small but significant effect for plethysmograph data has been shown (Elaad & Ben-Shakhar, in press; Podlesney, Raskin, & Barland, 1976). There currently does not appear to be any evidence to support scoring the cardiovascular channel in the CIT.

Most research has used the electrodermal channel as the sole source of information for conducting the CIT (see the CIT bibliography at the end of this article.) For evidentiary purposes, it is recommended that only the EDRs be scored. When conducting routine investigative examinations, all channels can be considered using a more global assessment of the responses. Examiners should always record all of the standard polygraph channels where it is required by law.

Decision Rules

Once scoring has been completed, the scores can be used to form an opinion. There are three possible outcomes for the CIT: Recognition Indicated (RI), No Recognition Indicated (NRI), and No Opinion (NO). These decisions are based on the total score. After the completion of the CITs, the scores are summed for all tests. The range of total scores can run from 0 to twice the number of CITs. For example, if there were five CITs run, with a potential of 2 points per CIT, the maximum attainable score is 10. The cutoff for a call of RI is equal to the number of CITs.

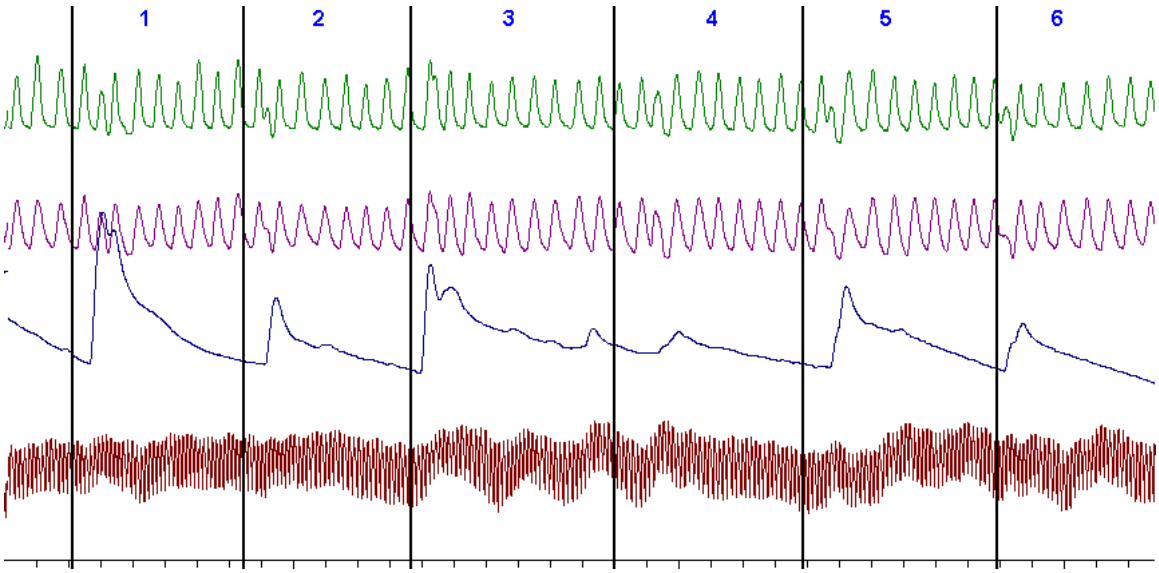

Figure 3. Sample CIT chart

Using again the five-CIT scenario, a total score of 5 or greater would justify a call of RI. A total score of 4 or less calls for an NRI decision. NOs can arise if there are no reactions to any of the CITs, or if the number of useable CITs is severely reduced by movements, artifacts, or countermeasures.

Rather than decisions, examiners may choose to simply report probabilities. Table 1 lists the probabilities for up to eight CITs and scoring only the EDRs. The number of CITs is on the left margin, and the scores are listed across the top of the table. If an examinee had a score of 9 for a six-CIT examination, the likelihood of being naïve to the key items would be 1.0%. A total of 12 points for the same examination would produce a probability of less than one-tenth of a percent chance that the examinee is naïve regarding crime-related information. A score of 3 in this case would suggest that the examinee does not know the details of the crime, as there is a nearly 69% chance of a truly naïve examinee achieving this score.

Summary

All polygraph examiners, and especially those in law enforcement, should have a working knowledge of the CIT. When conditions permit it can be a tremendous boon to the investigative process. The CIT is suitable as a primary technique, a supportive technique, or both. The strengths and limitations of the CIT are listed below.

Strengths

1. It is the most scientifically supportable technique a polygraph examiner can use.

2. The scoring method allows the examiner to calculate the precise likelihood of a false positive error. No such capability exists for manual scoring in the CQT.

3. It does not use probable-lie comparison questions, and therefore is less intrusive than the CQT.

4. It is relatively easy to set up, conduct and score.

5. Because the CIT relies primarily on the orienting response rather than the fear of detection, it can be used in emotionally charged cases where the CQT might fail.

6. It can be conducted either visually or aurally.

7. It is ideal for evidentiary applications.

8. It can be used as a powerful tool to elicit confessions from those who react to the key items.

Table 1. Probability of examinee having knowledge of crime details as a function of the number of CITs and exam score.

	Score													
CITs	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
2	**0.12**	**0.04**												
3	**0.28**	**0.13**	**0.03**	**0.01**										
4	**0.44**	**0.25**	**0.10**	**0.04**	**0.01**	**0.00**								
5	**0.58**	**0.38**	**0.20**	**0.09**	**0.03**	**0.01**	**0.00**	**0.00**						
6	**0.69**	**0.50**	**0.31**	**0.17**	**0.08**	**0.03**	**0.01**	**0.00**	**0.00**	**0.00**				
7	**0.78**	**0.61**	**0.42**	**0.26**	**0.14**	**0.07**	**0.03**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**		
8	**0.84**	**0.70**	**0.53**	**0.36**	**0.22**	**0.12**	**0.06**	**0.03**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Limitations

1. The CIT is a recognition test, not a deception test. It is designed only to determine whether the examinee knows certain information about the crime.

2. It cannot be used in circumstances where the examinee might legitimately have knowledge of potential key items, such as when the examinee is a witness or victim, or in "he said – she said" cases.

3. Like the Peak of Tension, the greatest limiting factor is the development of key items. This problem can be overcome for both the POT and CIT by educating the investigative officers on the necessity to withhold information from the public in general, and from potential suspects in particular.

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Utah Probable Lie Comparison Test

Mark D. Handler

Abstract

In 1970, a psychologist named Dr. David Raskin began a study of the Probable Lie Comparison Question Polygraph Technique. Raskin and his colleagues systematically studied and refined the elements of polygraphy by determining what aspects of the technique could be scientifically proven to increase validity and reliability (Raskin & Honts, 2002). Their efforts culminated in the creation of what is known today as the Utah Probable Lie Test (PLT). The Utah PLT and the corresponding Utah Numerical Scoring System resulted from over 30 years of scientific research and scientific peer-review. The resulting technique provides some of the highest rates of accuracy and repeatability of any polygraph examination protocol.

Introduction

This monograph is a tribute to the scientists who developed, researched, and refined the Utah Probable Lie Test (PLT) techniques. There are a number of writings found in numerous scientific journals and texts discussing the technique (for example, Raskin & Honts, 2002, and Honts, Raskin, & Kircher, 2005). The purpose of this paper is to consolidate some of those writings into a basic description of how to properly administer and evaluate the examination.

Test-Structure and Administration

The Utah PLT begins as any Comparison Question Test (CQT) with the pretest interview. The pre-test interview is accomplished in a non-accusatory manner. The interview begins with the examiner obtaining the necessary test release and if applicable, statutory rights waiver. The latter ensures the examinee understands the serious nature of the examination and counters any argument of a "friendly polygrapher" advantage for an examinee (Honts 1997). The examiner then obtains general biographical and medical information from the test subject. That friendly discussion begins rapport building with the subject and gives the examiner a chance to evaluate the subject's suitability for an examination. Interaction with the subject also gives the examiner the chance to do a rough assessment of the subject's verbal and mental abilities that will later be used to help word the examination questions. The examiner uses this period of conversation to lay foundation for the comparison material. The examiner does not, however, lecture the subject regarding past transgressions. This is done by conducting a psychological interview with open-ended suggestions as opposed to an interrogation of similar past deeds.

The examiner points out any monitoring devices and explains the purpose for having the exam monitored and/or recorded. The Utah approach is that all examinations should be recorded in their entirety. It is only through complete recordings that meaningful quality control is possible. Frankness regarding monitoring devices helps assure the examinee the test will be conducted in a professional manner and may assist in convincing the subject that the examiner is being open and truthful. An explanation of any quality control program also assists in establishing a professional and trustworthy atmosphere.

[1]The author is grateful to Dr. Charles Honts for his inspiration to learn and use this technique. The author is grateful to Dr. Honts, Dr. John Kircher, Mr. Don Krapohl and Senior IDO Lisa Tharappel for their thoughtful reviews and comments to an earlier draft of this paper. The views expressed in this article are solely those of the author, and do not necessarily represent those of the Montgomery County Texas Sheriff's Office. The author and the APA grant unlimited use and duplication rights to any polygraph school accredited by the American Polygraph Association or the American Association of Police Polygraphists. Questions and comments are welcome at polygraphmark@sbcglobal.net.

The examiner advises the examinee of the nature of the allegations and allows the subject a "free narrative" to discuss his or her knowledge of and/or role in the incident. The goal is to obtain information from the subject without confrontation or undue stress. In general the examiner should allow the subject to tell his or her story without interruption. The examiner should take notes on inconsistencies or other matters that he or she may want to return to when the subject finishes the narrative. The examiner does not argue with the subject nor does the examiner challenge the subject's version of the case facts. The examiner encourages the examinee to be candid in order to formulate the test questions in a most succinct and clear manner. The examiner informs the subject of the case facts in a low-key approach. The examiner should advise the examinee that these are allegations and ensure the examinee understands the difference between allegations and facts known to be true.

This low key, non-accusatory approach allows the examinee to see the examiner is a neutral seeker of the truth and helps to allay fears of pre-conceived guilt. If there are inconsistencies or other matters that the examiner feels the need to follow-up on before the examination they are discussed at this time. However, this is also not confrontational. The approach is one of the examiner asking open-ended questions in an effort to understand what happened, not one of challenging the credibility of the subject.

After the narrative and the discussion of any other issues the components are placed on the subject. During this process, the functions of components are discussed and a general explanation of the psychophysiology that underlies the polygraph test is provided. This may be done through a discussion of the flight-or-fight response or through a discussion of anecdotes that illustrate psychophysiological responding. The goal is to build in the subject a belief that lying will inevitably be associated with physiological response.

Once the components are placed on the subject, the examiner conducts an acquaintance test with the subject. The acquaintance test should be a known solution peak of tension test that is used to further convince the subject of the efficacy of the polygraph examination. The subject is told to select a number such that there will be some "padding" before and after the selected number. This can be accomplished by directing the subject to select a number between 2 and 6 and write that number on a piece of paper. The paper is then displayed in front of the subject and the subject is instructed to deny picking any number between 1 and 7 while the polygraph instrument records his or her physiological reactions. The acquaintance test allows the examiner to ensure the production of adequate quality recordings and to take corrective actions to remedy any lack thereof. The examiner can use the acquaintance test to convince the examinee he or she is a "suitable candidate" for polygraph, and provide assurances that a successful completion of the examination can be obtained by answering all of the test questions truthfully.

The test questions are reviewed with the examinee for clarity. The examiner starts with the Sacrifice Relevant Question followed by the Relevant Questions. The Sacrifice Relevant Question is used to introduce the Relevant Issue under investigation during the testing and is not scored. The Relevant Questions should be clear, concise and unambiguously answerable with a Yes or No response.

Next the examiner introduces and "sets" the Comparison Questions. The Comparison Questions are presented to the subject as necessary for determining the subject's character for having committed the type of offense under investigation. These questions are based on transgressions that essentially all people have committed, but which are likely to be denied in the context of the examination. The Comparison Question should be "exclusive" in that they are separated from the Relevant Issue by time, place or category. The Comparison Questions are broad in scope and based on actions categorically similar to that of the issue under investigation. That is, Relevant Questions on theft would be associated with Comparison Questions about theft or general honesty. Relevant Questions about violent acts should be associated with Comparison Questions

about causing harm. Standard Comparison Question construction as taught in American Polygraph Association (APA) and American Association of Police Polygraphist (AAPP) accredited polygraph schools is recommended for ensuring saliency.

As in other CQT techniques, the examinee is strongly discouraged from making admissions to Comparison Questions. If the examinee makes an admission to a Comparison Question, the examiner notes that admission with some dismay and either minimizes the admission or modifies the Comparison Question. An example of the latter would be: "*Other than what you told me about*, before this year did you ever lie to anyone who trusted you?" Note the italicized modifier preceding the Comparison Question. The ultimate goal is to discourage admissions to the Comparison Questions to ensure the subject perceives them as ambiguous and broad natured. It is also very important that the examiner convinces the subject that lying to any of the Relevant or Comparison Questions will result in a failure of the polygraph test and the conclusion of deception to the relevant issue under investigation.

Next the examiner introduces and reviews the Neutral or Irrelevant Questions. These questions are asked to allow an orienting response at the beginning of an examination. These questions may also used to allow time to return to a baseline when there is distortion or a physiological reaction to a specific question. Kircher, Kristjansson, Gardner, and Webb (2005) suggest inter-question intervals following a strong cardiovascular response should be increased to a minimum of 35 seconds, or a Neutral Question inserted. The Neutral Questions should be neutral in nature and answered "yes". The examiner may review several additional Neutral Questions in case they are needed during testing to re-establish a baseline tracing.

The examiner next reviews the Introductory Question which is similarly worded to one of the "symptomatic" questions used in other CQTs. The Introductory Question helps assure the examinee that no un-reviewed questions will be asked during the examination and affords the subject an opportunity to dissipate general nervous tension.

Three-Question Format

The Utah PLT has two versions, a Three-Question Version and a Four-Question Version (Raskin & Honts 2002). The Three-Question Version was the first designed and was primarily used for single-issue testing but can also be used for multiple-faceted testing of a single issue. The Three-Question Version of the Utah PLT allows a great degree of flexibility in Relevant Question Format.

For a *single-issue* examination, there will are three Relevant Questions, each slightly reworded.

For a *multiple-faceted* examination, the examiner has a choice of asking two reworded Relevant Questions with the same meaning and another Relevant Question that is directly related to the issue under investigation. This third Relevant Question can be an Evidence Connecting, Guilty Knowledge or Secondary Involvement question. A third alternative is to ask three separate Relevant Questions relating to the same specific issue under investigation. Examiners are reminded that research has shown that accuracy rates are higher for tests in which the subject is either completely truthful or deceptive to all of the test questions as opposed to just some of them (Barland, Honts & Barger, 1989; Honts, Kircher, & Raskin, 1988; Raskin, Kircher, Honts, & Horowitz, 1988).

The following list provides an example of question numbering and type of question used in the Three Question Version:

I1	Introductory
SR2	Sacrifice Relevant
N1	Neutral
C1	Comparison
R1	Relevant
N2	Neutral
C2	Comparison
R2	Relevant
N3	Neutral
C3	Comparison
R3	Relevant

Four-Question Format

The Four-Question Format is similar in design to a version of the Air Force Modified General Question Technique (AFMGQT). In this version, pairs of Relevant Questions are bracketed by Comparison Questions. This allows the examiner greater flexibility in scoring. The Relevant Questions can range from one to four different facets of the single crime issue. The question construction rules are the same as those described above for the multiple-facet version of the Three-Question Version.

The following is an example of question numbering and type of question used in the Four-Question Version:

I1 Introductory
SR2 Sacrifice Relevant
N1 Neutral
C1 Comparison
R1 Relevant
R2 Relevant
C2 Comparison
N3 Neutral (optional) This Neutral Question may be inserted at the option of the examiner to allow some decrease of tension and recovery to baseline. If inserted, the examiner will "skip over" this Neutral Question during scoring.
R3 Relevant
R4 Relevant
C3 Comparison
N2 Neutral

In Test Operation

In either version, the examinee is instructed to sit still and answer each question truthfully. The questions are presented to the examinee at least three times. The examiner should rotate the neutral, comparison and relevant questions after each chart so that all relevant questions are eventually compared to all comparison questions. Moving the questions helps to prevent pattern recognition during the examination. After the third chart, the scores are totaled. If the score total meets the threshold for making a definitive decision, the data collection phase is complete. If the test result is inconclusive following the first three charts, two additional charts are conducted following the same rotational patterns described above. Following the fifth chart, all scores are totaled to make a determination of veracity.

After each presentation of the test questions, the examiner should ask the examinee if they have any concerns with the test questions. The examiner then reviews the relevant and comparison issues with the subject. This ensures the relevant questions remain clear and concise and comparison question retain their salience. Honts (1999) demonstrated the benefit of this between-chart stimulation and question review. Honts showed that between-chart stimulation and question review dramatically reduced the false negative rate (54%), had a modest reduction of false positive rates (3%) and a substantial decrease in inconclusive outcome for truthful subjects (42%).

The following is an example of between-chart stimulation and question review as taught by Honts (1999) and modified by this author. The following is typical of the exchange that might take place following the first chart:

Examiner: OK Roy, did you have any problems with any of those questions on the test?

Roy: No.

Examiner: Anything come to mind when I asked you those questions?

Roy: No.

Examiner: How about those questions about the drug transaction? Is it clear what I am asking you? Do you understand them?

Roy: Yep.

Examiner: How about those questions about lying? Any problem with any of those?

Roy: Nope.

The examiner places equal emphasis on each group of questions during the stimulation and review.

Should a subject make additional admissions to Comparison Questions or need to modify a Relevant Question, the examiner should do so and re-label the question. For example, if the subject makes an admission to question C1 "Before this year did you ever steal anything from a business?" the examiner can modify that question to "Other than what you told me about, before this year did you ever steal anything from a business?" and label that question C1a. The examiner should then review all test questions with the subject.

The examiner then conducts the next two charts and again starts by telling the examinee to sit still and answer all of the questions truthfully. Between the second and third chart, the examiner performs the same between-chart stimulation and issue review. If a total of five charts need to be run, the examiner will continue the between chart reviews until completion of the exam.

The examiner rotates the Neutral, Comparison, and Relevant Questions during the next and subsequent presentations. The following are examples of serial positioning in the question string for the subsequent charts.

Three Question Version

First Chart

I1,SR2,N1,C1,R1,N2,C2,R2,N3,C3,R3

Second Chart

I1,SR2,N2,C3,R2,N3,C1,R3,N1,C2,R1

Third Chart

I1,SR2,N3,C2,R3,N1,C3,R1,N2,C1,R2

Four Question Version

First Chart

I1,SR2,N1,C1,R1,R2,C2,N3 (optional),R3,R4,C3,N2

Second Chart

I1,SR2,N2,C2,R1,R2,C3,N3 (optional),R3,R4,C1,N1

Third Chart

I1,SR2,N1,C3,R1,R2,C1,N3 (optional),R3,R4,C2,N2

As can be seen above, each relevant question has an opportunity to be compared to each comparison question across the three chart series. As discussed above, if the results are inconclusive after three charts, two additional charts are run. The examiner may simply use the first and second serial positioning question strings for the fourth and fifth chart.

Test Data Analysis and Decision Criteria

Numerical evaluation of the test data is accomplished by comparing the relative strengths of responses to comparison and relevant questions. The Utah Numerical Evaluation Scoring System was designed and refined by Raskin and his colleagues.

The Utah Scoring System is based on physiological data that has been proven to be a valid and reliable indicator of sympathetic arousal. The reliability of the Utah Scoring system has been shown to exceed 0.90 for interrater reliability (Bell, Raskin, Honts & Kircher, 1999). The accuracy of the Utah Scoring system from several analog studies was 90% (Bell et al. 1999) when averaged for programmed innocent and guilty subjects. The results of field studies using the Utah Scoring system are consistent with analog study results (Bell et al. 1999).

The Utah Scoring System is a simplified version of the numerical scoring techniques introduced by Backster in 1963 and modified by the US Army around 1970 (see Weaver 1980). The Utah system is a simple and elegant scoring system designed to improve accuracy, reduce inconclusive results, and ensure interrater reliability. It has fewer rules to follow and fewer criteria to score than many other scoring systems currently in use.

The Utah system uses a 7-position numerical scoring approach. The relative strengths of physiological reactions are compared and a score is assigned. The possible scores range from -3 to +3. The reaction of each relevant question is compared to the reaction of one or more comparison questions. If the relative strength of the relevant question is greater than that of the comparison question, a negative value is assigned. Conversely if the comparison

question strength exceeds the relevant question strength, a positive score is assigned. In some components there are minimum relative ratios that must be achieved in order to assign a score.

For the Three-Question Version shown above, the relevant question is normally compared to the preceding comparison question for evaluation. If the preceding comparison question is distorted by an artifact, the examiner may use the closest artifact-free comparison question for evaluation.

For the Four-Question Version shown above, the examiner compares the relevant question to the two bracketing comparison questions, component by component. For example, in the first chart of the Four-Question Version shown above, R1 is compared to C1 and C2. The examiner will find the strongest reaction channel by channel for C1 and C2 and use that to compare to the corresponding channel of R1. Physiological tracings that are affected by artifacts are excluded for evaluation purposes. As stated above, the examiner may insert a Neutral Question routinely after the second Comparison Question or any time needed to reestablish tracing stability. During Test Data Analysis, the examiner will "skip" over that Neutral Question. Honts has shown using the reaction of the stronger bracketed comparison question produced valid field results (Honts 1996; Raskin et al. 1988).

The Utah Scoring System uses a total of nine scoring criteria in the respiration, cardiograph, electrodermal, and peripheral vasomotor activity channels. Values of -3, -2, -1, 0, +1, +2, and +3 are assigned by channel to each relevant question. As mentioned above, if the Relevant Question is the larger of the two, the score will be a negative number. If the Comparison Question is the stronger of the two, the score will be a positive number.

The scores assigned to each channel are totaled for each relevant question on a chart. The values are assigned based on the following: little or no noticeable difference = 0; noticeable difference = +/-1, large difference = +/-2, dramatic difference = +/-3. Only one score of 3 can be assigned per chart, per channel, and only if the baseline for the channel is stable and the reaction is the largest in that channel on the chart. The relevant question totals are calculated after three charts and if inconclusive, after five charts. Figure 1 shows the distribution of the numerical scores obtained during the survey by Bell et al. al (1999). As can be seen from the graph the majority of numerical scores assigned are zero or +/- 1 for most channels

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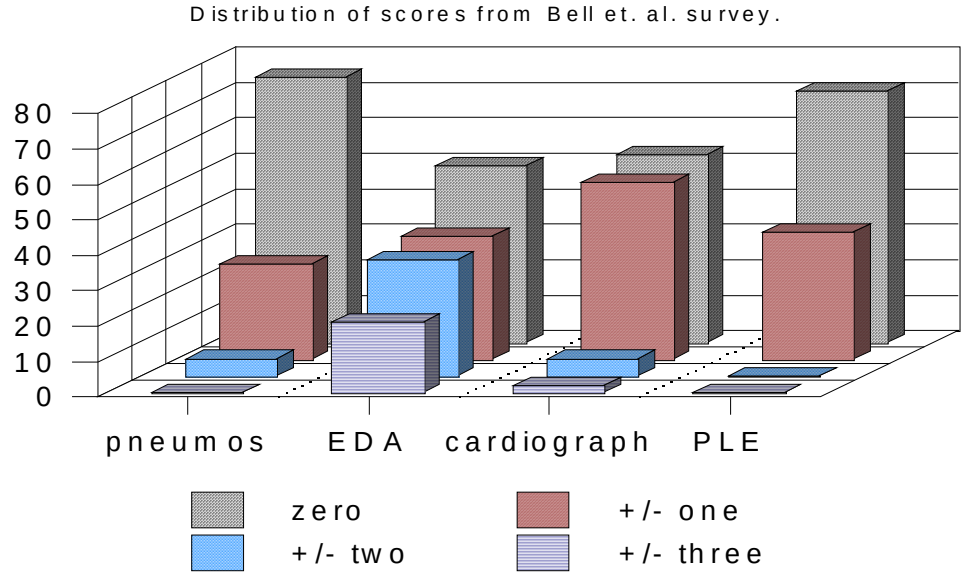

Figure 1. The Distribution of scores from the Bell et. al survey.

For the respiration channel, there are four empirically confirmed features that are considered diagnostic (American Society for Testing and Materials, 2005). Three of those features are captured by the phenomenon known as Respiration Line Length "RLL" (Timm, 1982). Those three are suppression of respiration amplitude (Figure 2), reduction in the respiration rate (which includes changes in the inhalation/exhalation ratios that appear as rate decreases Figure 3) and apnea occurring near the exhalation cycle (Figure 4).

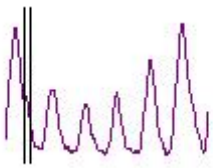

Figure 2. Example of suppression of respiration amplitude.

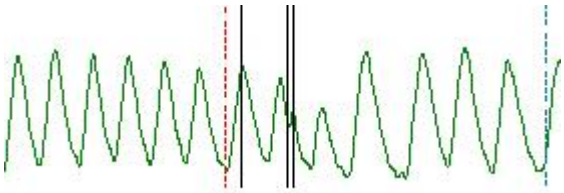

Figure 3. Example of reduction in respiration rate.

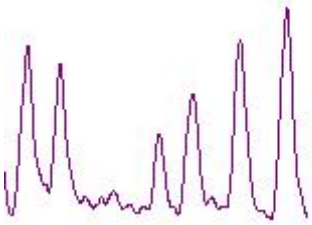

Figure 4. Example of apnea occurring at or near exhalation.

Note: The above three reaction criteria are those that are captured by the phenomenon known as RLL.

RLL is simply the measurement of the length of the respiration line for a fixed period of time. The total line length between the relevant and comparison question or questions is compared. The greater the suppression, the shorter the line length and thus the stronger the response. The fourth respiration criterion is a temporary rise in the baseline of the tracing (Figure 5).

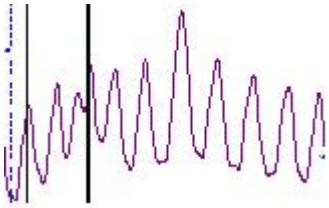

Figure 5. Example of temporary respiratory baseline increase.

A tracing is considered to be diagnostic if there are at least three successive cycles of an RLL feature or temporary baseline arousal. The exception to this is apnea, where there may not be any discernable cycles of respiration. While the thoracic and abdominal respirations are recorded separately, a single value is assigned. That value is based on the noted combined difference between the Relevant and Comparison Questions. Bell and his colleagues used a sample of 50 polygraph examinations to conduct a survey that provided 450 numerical scores. They tallied those scores to determine the distribution of scores. Bell and associates noted that for respiration scores of 0 were assigned about 75% of the time, scores of +/-1 about 20% and +/-2 or 3 less than 5% of the time (Bell et al.1999).

For the electrodermal channel, scores are based primarily on a comparison of the peak amplitude (Figure 6). This criterion has been empirically shown to be diagnostic. Amplitude is measured from the pre-stimulus baseline to the highest peak achieved within the scoring window (Bell et al., 1999). The ratio of the Relevant and Comparison Question is calculated. For a score of 1 is assigned if the relative strength is twice as large, a score of 2 is assigned if the relative strength is three times as large, and a score of 3 is assigned if

the relative strength is four times as large. If the electrodermal tracing is labile, a score of 3 cannot be assigned. Duration of response and complexity can be considered as secondary reaction criteria. Reactions that have clearly longer duration or complexity may increase a 0 to a 1 or a 1 to a 2 (Figures 7-8). This may only occur if the amplitude ratios are 1.5:1 to go from a score of 0 to a score of 1 and 2.5:1 to go from a score of 1 to a score of 2. Bell et al., noted in the electrodermal channel scores of 0 were assigned about 50% of the time, scores of +/-1 about 25%, +/-2 about 20 % and +/-3 less than 10% of the time.

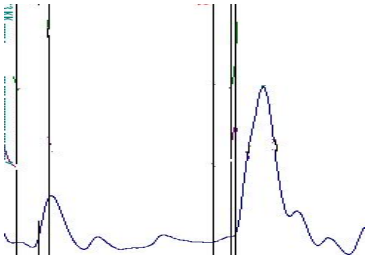

Figure 6. Example of electrodermal amplitude increase.

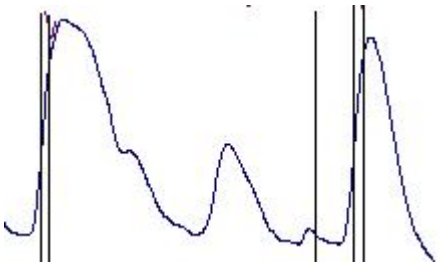

Figure 7. Example of increased electrodermal duration.

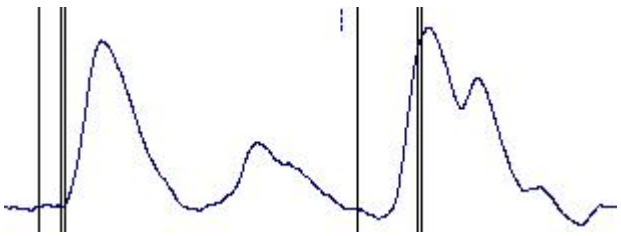

Figure 8. Example of electrodermal complexity.

For the relative blood pressure channel, relative strengths of reactions are assessed based on changes in movement from baseline (baseline arousal) (Figure 9). As in the respiration channel, values are assigned based on the following; little or no noticeable difference = 0, noticeable difference = +/-1, large difference = +/-2, dramatic difference = +/-3.

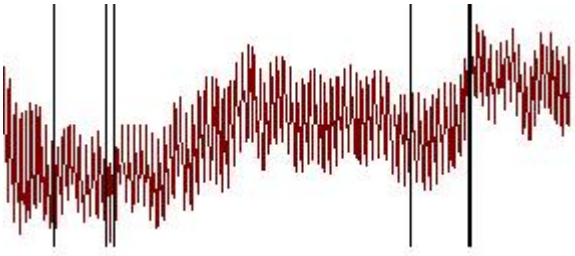

Figure 9. Example of cardiovascular baseline arousal.

A more formal interpretation is a minimum ratio of 1.5:1 is required for a score of; 1 a ratio of 2:1 for a score of 2, and 3:1 for a score of three. The duration of the response may be considered when evaluating the relative strength of the reaction. A reaction with greater duration may increase a score from 0 to 1 or from 1 to 2 (Bell et al. 1999) (see Figure 10). Bell et al. noted in relative blood pressure scores of 0 were assigned about 50% of the time, scores of +/-1 about 45%, +/-2 less than 5 % of the time. Scores of +/-3 are rare and only one such score can be assigned per chart as explained in the electrodermal section (Bell et al.).

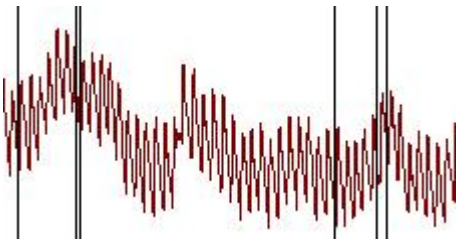

Figure 10. Example of increased duration of cardiovascular response.

For the peripheral vasomotor activity, the relative strength of the reactions are assessed by comparing the reduction in pulse amplitude (Figure 11). The source of this channel is a photoplethysmograph monitoring reduction in finger pulse amplitude. Numerical scores are based on the duration and degree of amplitude reduction. Scores may be assigned when there is no difference in amplitude decrease but a discernable difference in duration of the reactions (Figure 12). Bell et al. (1999) noted in scoring finger pulse amplitude scores of 0 were assigned about 70% of the time and scores of +/-1 about 30%.

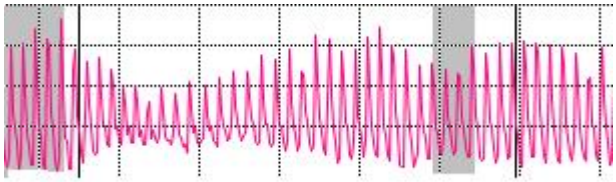

Figure 11. Example of amplitude reduction collected by the plethysmograph

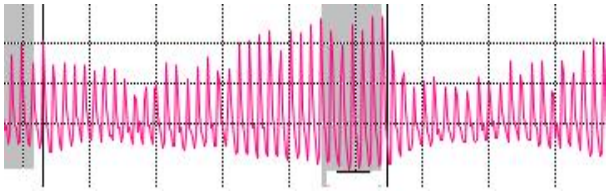

Figure 12. Example of increased duration of amplitude reduction collected by the plethysmograph

Decision Criteria

The examiner proceeds through the charts and totals the score for each relevant question on each chart. The total score of each relevant question for the first three charts is then determined. For single-issue tests where the subject must be truthful or deceptive to all of the relevant questions, the cutting score is +/-6. In other words, when there is a Grand Total of +6 or greater, the result is truthful. A Grand Total of -6 or less would result in a determination of untruthful or deception indicated.

Scores falling between -5 and +5 would result in a determination of inconclusive and the examiner would conduct an additional two charts as described above. Following those two additional charts, the relevant question scores are once again totaled. The cutting scores of +/-6 remain the same for five charts.

The decision criteria are slightly different for multiple-faceted examinations where the subject may be truthful to some but not all of the relevant questions. If the Spot Total for all Relevant Questions are either all positive or all negative, use the +/-6 Grand Total rule described above for single-issue tests. If any of the spots are opposite (some positive and some negative), then use a Spot Score Rule (SSR) for each spot. The SSR is that each spot total must be +3 for a conclusion of no deception indicated (NDI), and any one spot total of -3 or less calls for a decision of deception indicated (DI) for that question. However, if calls are made on individual questions caution is called for as research indicates that when subject answer some questions truthfully and some deceptively the accuracy for calls on individual questions is reduced (see the discussion in Raskin & Honts, 2002.)

Conclusion

As Dr. Honts and Dr. Raskin wrote, the Utah PLT was created by psychologists and founded upon known and proven principles of psychology and psychophysiology (Raskin & Honts 2002). The reliability and validity of the Utah PLT has been demonstrated in a number of peer-reviewed and published scientific studies (see the review in Raskin & Honts, 2002). Those scientists who created and refined the technique took great pains to thoroughly research and assess the utility of the examination. These included numerous field and analog studies conducted over three decades. The Utah Scoring System takes a somewhat conservative approach to assigning values. This ensures that scores are assigned to reactions that are clearly different in comparison and not arbitrarily assigned. Some may argue this conservative approach may result in an inconclusive finding after three charts and thus require the additional two charts be conducted. From a scientific standpoint, more data is better and the

additional two charts should serve to increase confidence in the results.

It is the sincere hope of this author that others in the field of polygraphy will consider learning and using the Utah PLT. The more we move our profession toward scientifically validated techniques, the more respect we will gain from others outside of the polygraph profession. The creators of the Utah PLT have devoted a considerable portion of their distinguished professional careers in development, research and scientific defense of the examination. Their collective contribution and dedication is a testimony to their desire to refine the science of modern polygraph.

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Validated Polygraph Techniques[1]

Donald J. Krapohl

Abstract

There are many polygraph techniques currently used in the field. Much research has taken place over the past 30 years that has attempted to validate at least a portion of those techniques. The present article attempts to encapsulate the findings of the research. Methods that have replicated research support are identified, and mean accuracies across studies are calculated. Implications for technique development are discussed.

Introduction

One of the most-asked questions from experienced polygraph examiners is: which polygraph techniques are "validated"? Understandably, examiners want to use the most accurate techniques available and with today's more educated examiner, the focus has shifted more toward science than in years past. Because to date no list of validated methods has been published, examiners are left to employ more informal methods of selection.

How, then, do polygraph examiners make these important decisions about the technique they will practice on the public? There is more than one answer to this question. For most examiners it's pretty simple: we choose our technique the same way a duck chooses his mother – it was the first thing we saw. Not everyone is so fixated, of course. A venturesome minority may begin to use a technique they learned at a seminar or read about in a professional publication. Least often and least desirable, a hardy few become enamored with techniques they've devised themselves, methods often based on personal experiences or simple hypotheses about the mechanisms of psychophysiology or psychometrics.

None of these approaches can be called scientific, and all of them are vulnerable to a host of systematic errors. It may be acknowledged that many techniques have been used for years by perhaps many hundreds of polygraph examiners, who take this fact as proof of validity. Popularity should not be confused with validity, however (consider the lesson of astrology). Some methods appear to be effective in eliciting confessions, but neither is this a measure of validity. Nor should public endorsements or self-endorsements from individuals by themselves satisfy the requirement. Validation is a careful process, having no shortcuts, and it allows us to have a level of confidence in the methods we use.

For clarity, scientific validation of a technique will be defined here as the existence of replicated and published research which found the technique to be accurate. What is "accurate"? While the scientific threshold for validity is often set at anything with a robust effect above chance level, the threshold according to standards of the American Society for Testing and Materials (ASTM, 2005) is 90% for evidentiary polygraph techniques and 80% for investigative polygraph techniques, inconclusives excluded. Both evidentiary and investigative polygraph techniques are permitted an inconclusive rate of up to 20% of all cases. By way of definition, evidentiary polygraph examinations are those conducted specifically for courtroom purposes.

[1]The author wishes to express his appreciation to Gordon Barland Ph.D. and Stuart Senter Ph.D. for their very insightful comments and suggestions to an earlier draft. The views expressed in this article are solely those of the author, and do not necessarily represent those of the Department of Defense, the US Government or the APA. Comments and reprint requests should be sent to dkrapohl@aol.com.

Investigative polygraph examinations are used for non-judicial purposes, such as applicant testing, sex offender management, criminal investigation, and counterintelligence screening to name a few. Because no other validity standard exists in the profession, the ASTM minimums will be used here. Of the many polygraph techniques that have undergone the validation process, not all of them meet the exacting ASTM standards. The validity research is covered later in this paper.

The validation process is necessarily slow and meticulous, and does not always lead to the conclusion that a technique is valid. For example, the putative relationship between the vocal micro-tremor and deception has undergone the validation process. There are many scientific studies, and by consensus they show low or no validity for this approach to deception detection (National Research Council, 2003). This inconvenient fact hasn't deterred the marketers of voice stress devices, however, who seem to roll out new versions fairly regularly. To coin a phrase, voice stress appears to be promising.....and promising and promising. Nevertheless, under the cold eye of scientific inquiry, it has yet to make good on its promises.

Contrast voice stress analysis with some of the most commonly used polygraph techniques. Many polygraph techniques are not supported by good research, but because they share principles that have been confirmed during the research of similar techniques, they are almost certainly valid techniques (more about this later). In other words, these polygraph techniques are probably valid, but have not gone through the validation process. I bring this to the attention of the reader so that the subsequent information on validated techniques can be given context and proper weight. For the research to be included in the present summary, the following criteria, which I believe to be reasonable, had to be met:

1. The research had to be published in full.

2. The research had to be replicated.

3. The published polygraph technique had to be identified by name or reported in sufficient detail so that the correct name for the technique could be determined.

4. When multiple techniques were reported, accuracy figures had to be available for each technique.

5. The accuracy figures had to be broken out separately for truthful and deceptive cases.

6. Ground truth criteria must have been independent of the polygraph results.
7. The testing and scoring technique must have been representative of field practices.

8. Field cases must have been randomly selected, or with laboratory studies, subjects must have been randomly assigned to either deception or non-deception conditions.

9. The formulation of decisions of deception or truthfulness on individual cases could not consider the results of other examinations on the same crime.

10. For laboratory data, programmed countermeasure cases were excluded.

The list below shows the polygraph techniques meeting the criteria above. Listed first are the unweighted averages of the true negative, true positive, and inconclusive rates for these studies, followed by the supporting research citations. It should be noted that the accuracy figures are based on human decisions rather than algorithm decisions. While current evidence suggests that some algorithms perform better than the average human scorer on single-issue examinations, algorithms are not available for all techniques. When algorithm outcomes were reported in the research along with human decisions, only human decisions were used so to afford an apples-to-apples comparison among techniques.

Examiners may find that their preferred method did not meet the definition of "validated." However, they may draw comfort that this list is current only up to the date of publication, and it is certain to grow in the future. The twin goals of this article are to

inform polygraph examiners of the existing state of the field, and to encourage more research that could advance it.

Army Modified General Question Technique (MGQT)

Unweighted mean accuracy

Deceptive cases (N = 168): 97% correct without inconclusives. 7% inconclusive.

Truthful cases (N = 60): 25% correct without inconclusives. 35% inconclusive.

Overall: 61% correct without inconclusives. 21% inconclusive.

Citations

Blackwell (1998).
Krapohl & Norris (2000).
Podlesny & Truslow (1993).

Concealed Information Test (CIT, AKA Guilty Knowledge Test)

Unweighted mean accuracy

Deceptive cases (N = 843): 76% correct. Inconclusives are generally not allowed.

Truthful cases (N = 404): 83% correct. Inconclusives are generally not allowed.

Overall: 80% correct.

Citations

There are literally scores of studies using the Concealed Information Test. For an excellent review of the literature (with citations) and a meta-analysis of 50 published data sets, see MacLaren (2001).

Federal Zone Comparison Technique (AKA Army ZCT)

Unweighted mean accuracy

Deceptive cases (N = 141): 97% correct without inconclusives. 9% inconclusive.

Truthful cases (N = 110): 82% correct without inconclusives. 23% inconclusive.

Overall: 89% correct without inconclusives. 16% inconclusive.

Citations

Blackwell (1998).
[1]Krapohl (2005).
[2]Yankee, Powell, & Newland (1985).

[1] Investigative (traditional) decision rules used
[2] Experienced group data used.

Reid Technique

Unweighted mean accuracy

Deceptive cases (N = 88): 88% correct without inconclusives. 7% inconclusive.

Truthful cases (N = 88): 78% correct without inconclusives. 5% inconclusive.

Overall: 83% correct without inconclusives. 6% inconclusive.

Citations

[3]Jayne (1990).
[4]Horvath (1977).
[3]Horvath (1988).

[3] Reid method data used only.
[4] Verified cases only.

Relevant-Irrelevant (RI) Screening Test

Unweighted mean accuracy

Deceptive cases (N = 79): 90% correct without inconclusives. 0% inconclusive.

Truthful cases (N = 61): 73% correct without inconclusives. 0% inconclusive.

Overall: 83% correct without inconclusives. 0% inconclusive.

Citations

Correa & Adams (1981).
Krapohl, Senter, & Stern (2005).

Test for Espionage and Sabotage

Unweighted mean accuracy

Deceptive cases (N = 65): 83% correct without inconclusives. 0% inconclusive.*

Truthful cases (N = 119): 93% correct without inconclusives. 3% inconclusive.*

Overall: 88% correct without inconclusives. 2% inconclusive.*

* The TES protocol permits retesting when an initial series is found inconclusive.

Citations

Research Division Staff (1995a).
Research Division Staff (1995b).

Utah Zone Comparison Technique

Unweighted mean accuracy

Deceptive cases (N = 116): 92% correct without inconclusives. 12% inconclusive.

Truthful cases (N = 116): 89% correct without inconclusives. 11% inconclusive.

Overall: 91% correct without inconclusives. 12% inconclusive.

Citations

[5] Honts, Hodes, & Raskin (1985).
[5] Honts, Raskin, & Kircher (1987).
[5] Honts, Raskin, & Kircher, J.C. (1994).
[6] Kircher, & Raskin, (1988).
Raskin, & Hare, (1978).

[5] Programmed countermeasure cases excluded.
[6] Human scoring condition only.

Recall that according to ASTM standards for evidentiary and investigative polygraph techniques, examinations for evidentiary purposes require a minimum accuracy of 90% without inconclusives, and an inconclusive rate overall of 20% or less, and investigative examinations have a lower standard; 80% accuracy without inconclusives and an overall inconclusive rate of 20% or less. According to these standards, only the Utah Zone Comparison Technique is sufficiently researched and valid for evidentiary purposes (See Table 1). It is worth noting that the Federal ZCT fell below the threshold by a single percentage point.

For investigative examinations, the list of validated methods would include the Federal Zone Comparison Technique, the Reid Technique, the Concealed Information Test, the Relevant-Irrelevant Screening Test, and the Test for Espionage and Sabotage. The research on the Army Modified General Question Technique (MGQT) did not indicate an accuracy sufficiently high for either category of examination, and therefore it should not be used as a standalone technique. In other words, the MGQT could be employed in a screening-type application to guide an examiner as to where to focus attention, but it should be followed up with a technique that provides sufficient validity.

Table 1. Rank order of polygraph techniques by accuracy (excluding inconclusives).

Technique	Accuracy without Inconclusives	Inconclusive Rate
Utah ZCT	91%	12%
Federal ZCT	89%	16%
TES	88%	2%
RI	83%	0%
Reid	83%	6%
CIT	80%	0%
MGQT	61%	21%

As a closing comment, a word about validated *techniques* versus validated *principles*. In 2002, the American Polygraph Association (APA) Board of Directors undertook the task of developing a list of acceptable techniques, that is, those that the APA could support because of the research. The task turned out to be more complicated than anticipated. For example, there are

several techniques that are highly similar, but a technique by one name received the research while the others did not. Does this mean that one technique is valid while the other is not? Also, some techniques had evolved over time to forms that were not identical to that tested in the validity research. How much this may have affected validity is unknown. The literature search also turned up some research that was transparently self-serving and of questionable value. Other studies were of very poor design, and many reports used to bolster validity claims were never published. The task of cataloging valid techniques ultimately made clear what was really important about validation: valid principles.

Valid principles, it can be agreed, are the building blocks of valid techniques. Therefore, if one knows which principles are valid and which are invalid, development of valid techniques is a straightforward process. Subsequent reading of the research literature suggests that there are several important principles that can be relied upon. Here is an incomplete list:

- Single-issue testing is more accurate than multiple-issue or multiple-facet testing.
- "Successive hurdles" can increase decision accuracy in multiple-issue testing.
- Two-stage decision rules produce fewer inconclusives than one-stage decision rules. The proportions of correct and incorrect decisions are not affected.
- The total chart minutes concept is false.
- Changing cutoffs by themselves will merely affect the types of decision errors.
- Decision rules can be set to minimize the cost of errors for a particular application.
- Exclusionary comparison questions do not improve decision accuracy over non-exclusionary probable-lie questions.
- There are approximately 12 tracing features that are valid for chart interpretation.
- Some computer algorithms outperform most human scorers in blind scoring of single-issue examinations.
- Highly complex scoring rules can reduce human scoring reliability, which can, in turn, erode decision accuracy.
- On average, deceptive examinees react stronger to relevant questions than truthful examinees react to probable-lie questions. Decision rules can be adjusted to compensate for this imbalance.
- Relevant questions immediately preceded by an irrelevant questions produce significantly lower scores than relevant questions preceded by comparison questions. This is true for both truthful and deceptive examinees.
- The value of symptomatic questions to reduce inconclusives is highly questionable.
- An acquaintance test given before other testing improves decision accuracy.
- The data channels shown to contribute to decision accuracy are: respiration, electrodermal activity, blood volume (cuff), and vasomotor (plethysmograph).
- The Utah 3-to-5 chart rule reduces inconclusives. The proportions of correct and incorrect decisions are not affected.

Polygraph techniques in many shapes and sizes could be assembled from valid principles, including those above. The use of valid principles brings with it significant benefits. They could be used as benchmarks to help avert professional disagreements that involve non-critical differences between techniques, and to help identify deficient techniques. If the profession were to adopt this approach to technique development and abandon the "science-lite" methods of the

past, we could find the field moving toward higher accuracy, fewer disagreements, and more credibility.

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American Polygraph Association – Model Policy For Law Enforcement Pre-Employment Polygraph Screening Examinations

3.12 MODEL POLICY FOR LAW ENFORCEMENT PRE-EMPLOYMENT POLYGRAPH SCREENING EXAMINATIONS.

3.12.1 Introduction

3.12.1.1 The pre-employment polygraph examination for law enforcement officers is unique in its process. It is a searching process to confirm an applicant's background information and/or to uncover information that would disqualify the applicant.

3.12.1.2 As with any polygraph examination, law enforcement pre-employment polygraph examinations do not take the place of an investigation. Instead, the pre-employment polygraph is used to enhance the background process. A thorough background investigation should always be conducted in conjunction with the pre-employment polygraph examination.

3.12.1.3 The decision to hire, or not to hire an applicant, should never be based solely on the results of the polygraph examination.

3.12.1.4 The polygraph examiner's function is to find the truth about the applicant's personal history and any illegal or unethical activities.

3.12.2.1 Complying with Standards of Principles and Practices

3.12.2.1 All American Polygraph Association (APA) examiners conducting law enforcement pre-employment polygraphs should comply with the American Polygraph Association Standards of Principles and Practices, as well as federal and local legal requirements, including the Employee Polygraph Protection Act (EPPA), the Equal Employment Opportunity Commission (EEOC), and the Americans with Disabilities Act (ADA), unless ordered otherwise by their respective departments or to comply with state law.

3.12.2.2 This model policy is based on the latest scientific studies. It is understood that various jurisdictions have restrictions or guidelines that might conflict with the recommendations in this model policy. When the local restrictions conflict with these recommendations, the examiner shall comply with local restrictions. It is suggested that examiners in these jurisdictions coordinate with the APA to update their local regulations to the latest scientifically, validated procedures.

3.12.2.2 Environment

3.12.3.1 All examinations should be administered in an environment that is free from distractions that would interfere with the applicant's ability to appropriately focus on the issues being addressed.

3.12.4 Equipment

3.12.4.1 Examiners shall use a polygraph that is properly functioning, maintained and calibrated.

3.12.4.2 The instrument must meet the minimum specification

guidelines of APA and local licensing laws.

3.12.4.3 It is recommended that the instrument be equipped with a movement sensor.

3.12.5 Recording

3.12.5.1 It is recommended that all pre-employment examinations be electronically recorded. Audio/video is preferred, but audio-only is acceptable.

3.12.6 Pre-Test Interview

3.12.6.1 The examination should start with a pre-test interview. It is recommended that the interview include the following:

3.12.6.1.2 Written consent to administer the examination. All polygraph examinations are voluntary. The examiner shall always obtain documented consent from the applicant prior to the examination.

3.12.6.1.3 A determination of the applicant's suitability for testing. If the applicant is not suitable for testing, the process will be postponed until the issue is resolved between the applicant and the prospective employer.

3.12.6.1.4 A review of the application for employment and personal history statement that the applicant filed with the prospective employer.

3.12.6.1.5 An explanation of how the polygraph works.

3.12.6.1.6 A review of all test questions.

3.12.6.2 Pre-Employment Examination Questionnaire

3.12.6.2.1 A pre-employment examination questionnaire should be completed by the applicant prior to the testing process.

3.12.6.2.2 The questionnaire should cover the applicant's entire life activities, including his or her experiences as a law enforcement officer, if applicable.

3.12.6.2.3 The examiner shall review the applicant's questionnaire with the applicant,

3.12.6.2.4 Any admissions of illegal or unethical activity by the applicant shall be noted and reported to the prospective employer for consideration.

3.12.7 Test Question Construction

3.12.7.1 All the test questions should be worded in a manner consistent with the type of test format being used.

3.12.7.2 The relevant questions should cover criminal and unethical activity in which the applicant may have been involved that would disqualify the applicant from a position of authority.

3.12.8 Testing Phase

3.12.8.1 The administration of the polygraph test must conform to all the same standards as any other polygraph examination.

3.12.9 Testing Format

3.12.9.1 A law enforcement pre-employment polygraph examination must use an accepted format for multi-issue testing. A comparison question format is recommended. If a multi-issue format examination is utilized and there are significant responses noted to any of the relevant issues, it is recommended that the

examination be followed by a specific-issue examination.

3.12.9.2 The multi-issue examination should be limited to not more than five (5) relevant questions. If more issues need to be explored, a second and/or third series should be administered.

3.12.9.3 It is recommended that an acquaintance test be used as part of the examination process.

3.12.10 Use of a Diagnostic or Successive Hurdles Approach.

3.12.10.1 A multi-issue test format must be utilized in most pre-employment polygraph examinations because the examinations usually cover many areas of concern, i.e. theft, drugs, etc. Scientific studies have indicated that the more issues covered in an examination, the more likely that the accuracy of the examination will be affected in a negative way.

3.12.10.2 The most accurate testing format is a single-issue comparison technique.

3.12.10.3 Consequently, when using a multi-issue screening format, an examiner may need to administer a "follow-up" validated specific-issue examination to resolve any deceptive issues on the multi-issue test format. A specific-issue examination should be administered only if it is determined that the specific-issue examination will resolve the deceptive issue(s) from the multi-issue examination

3.12.10.4 The follow-up examination should be focused on the issue of concern identified in the screening exam.

3.12.10.5 The follow-up specific-issue examination should be scheduled for a later date.

3.12.10.6 If a follow-up specific-issue examination is recommended, the hiring agency shall decide if the follow-up examination will be administered.

3.12.11 Test Evaluation

3.12.11.1 After the polygraph examination has been administered, the examiner will evaluate the charts using the appropriate method for the specific testing format being used, looking for any consistent, significant responses physiological to relevant questions that are timely to the questions.

3.12.11.2 If there are consistent, significant physiological responses noted to any of the relevant questions, the examiner will render the appropriate evaluation of the examination.

3.12.11.3 If sufficient criteria do not exist to render an opinion, the examiner shall evaluate the exam as No Opinion (NO) or Inconclusive (INC).

3.12.11.4 Additional testing may follow any of the above opinions.

3.12.11.5 If there are no consistent, significant physiological responses noted to relevant questions, the examiner should indicate such on the final report

3.12.11.6 After a confession, an admission, or a finding of consistent physiological reactions to relevant questions on any specific or multi-issue examination, the examiner shall call an applicant "deceptive" to the testing process.

3.12.12 Post-Test Interview

3.12.12.1 If there are consistent, significant physiological responses noted to any of the relevant questions, the applicant shall be given an opportunity to explain why the applicant responded to those questions. An interview or interrogation should follow. The examiner shall advise the applicant of the final results of the examination.

3.12.12.2 If there are no responses to relevant questions, the applicant should be allowed a chance to explain any reactions to the non-relevant questions.

3.12.12.3 It is recommended that all pre-employment examinations be subject to quality control review.

"The Future Ain't What It Used to Be":[i] New Developments in Evidence for the 2005 Term of Court[1]

Major Christopher W. Behan[2]

Relevance is at the conceptual core of the Federal Rules of Evidence (FRE) and the Military Rules of Evidence (MRE). As expressed in Rules 401,[ii] 402,[iii] and 403,[iv] evidence that is logically relevant[v] is admissible at trial, unless other rules prohibit its admission[vi] or its probative value is substantially outweighed by the danger of unfair prejudice or other damage to the fact-finding process.[vii] What seems simple on its face, however, is often complicated by caselaw interpretations that expand or contract the limits of relevance according to the philosophical preferences of appellate judges.

The strongest evidentiary trend in the 2005 term of court was the Court of Appeals for the Armed Forces' (CAAF) struggle to establish the boundaries of logical and legal relevance in trials by court-martial. The CAAF wrestled with issues involving the basic definition of logical relevance,[viii] the limits of legal relevance,[ix] and whether specific evidentiary prohibitions should prevent logically relevant evidence from being admitted at trial.[x] The CAAF appears to be ideologically fractured and inconsistent on issues of relevance, making it very difficult for practitioners and military judges to apply the plain language of the MRE in making admissibility determinations.

Relevance, however, was not the only evidentiary subject tackled by the CAAF and the service appellate courts during the 2005 term of court. This article will discuss and analyze significant evidentiary military appellate cases from the CAAF and the service appellate courts, proceeding sequentially through other military rules of evidence. This year's term addressed cases concerning the proper preservation of objections under MRE 103,[xi] the independent source rule for the corroboration of a confession under MRE 304(g),[xii] logical and legal relevance under MREs 401[xiii] and 403,[xiv] uncharged misconduct under MRE 404(b),[xv] sexual propensity evidence under MRE 413,[xvi] the joint-participant exception to the marital communications privilege of MRE 504,[17xvii] impeachment under MRE 613,[xviii] expert testimony under MREs 702[xix] and 704,[xx] adoptive admissions and MRE 801(d)(2)(B)[xxi], the public records exception to the hearsay rule of MRE 803(8),[xxii] and statements against interest under MRE 804.[xxiii]

Cases from the 2005 Term of Court

Rule 103: Preserving Objections for Appellate Review

Military Rule of Evidence 103 requires counsel to make objections in order to preserve evidentiary issues for later appellate review. The objections must be timely and specific, and counsel must be prepared to preserve objections through offers of proof.[xxiv] In the absence of plain error, evidentiary issues are forfeited if counsel fail to comply with the requirements of MRE 103.[xxv] In *United States v. Datz,*[xxvi] the CAAF addressed MRE 103's requirements to preserve evidentiary issues for later appellate review.

[1]The following article is reprinted from The Army Lawyer, Department of the Army Pamphlet 27-50-395: Major Christopher H. Behan, "The Future Ain't What It Used to Be": New Developments in Evidence for the 2005 Term of Court, Army Law., April 2006. The opinions and conclusions expressed herein are those of the individual author, and do not necessarily represent the views of The Judge Advocate General's School, the United States Army, or any other governmental agency.

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The appellant in *Datz* was convicted of raping a female member of his crew after unlawfully entering her civilian quarters.[xxvii] He conceded at trial that he and the alleged victim had participated in sexual intercourse, but he claimed it was consensual.[xxviii]

The government's case consisted of testimony from the alleged victim and a police investigator, Special Agent (SA) Van Arsdale, who had interrogated the appellant.[xxix] Special Agent Van Arsdale testified that Datz had nodded affirmatively in response to the agent's statement that Datz knew he did not have consent to engage in sexual intercourse with the victim.[xxx] The government introduced evidence of the nod as an adoptive admission by the appellant.[xxxi]

Special Agent Van Arsdale, however, was not the most reliable of witnesses. Testifying from memory, he could not recall the exact wording of the questions he had posed to the appellant. Instead, he testified about questions he "would have" asked the appellant.[xxxii] As for the critical question in the case—the one that led to the appellant's alleged adoptive admission—SA Arsdale had this to say: "Again, it was something to the effect—this whole line of questioning was around the same time, and it would have been, 'She didn't in fact agree to have sex with you, did she?' or something to that effect."[xxxiii] In other words, SA Van Arsdale had observed the appellant nod affirmatively in response to a compound and ambiguous question.[xxxiv]

Defense counsel objected on grounds of relevance and prejudice and in argument to the military judge during an Article 39(a) session, questioned whether the appellant had actually manifested his adoption of or belief in the statements or was merely nodding in anger or frustration.[xxxv] Defense counsel, however, never cited MRE 801(d), the rule governing adoptive admissions,[xxxvi] to the military judge. The military judge admitted the evidence and stated that defense counsel's arguments would go to the weight but not the admissibility of the statements.[xxxvii]

On appeal, the CAAF addressed the issue of whether defense counsel waived the adoptive admissions issue by failing to properly preserve the objection under MRE 103.[xxxviii] Adopting a common-sense approach, the CAAF held that defense counsel had adequately preserved the adoptive admissions issue for appeal.[xxxix] Military Rule of Evidence 103 requires an accused to make a timely objection, stating the specific grounds for the objection if not apparent from the context.[xl] There is no requirement to cite a particular rule by number.[xli]

In this case, appellant's defense counsel initially objected on grounds of relevance and prejudice, but presented sufficient argument on the adoptive admissions issue to make known to the military judge the basis for his objection.[xlii] The CAAF rejected the government's argument on appeal—the appellant would be required to raise every possible argument in support of an objection to avoid forfeiting the issue—stating, "[i]n the heat of trial, where counsel face numerous tactical decisions and operate under time pressure, we do not require such elaboration to preserve error on appeal."[xliii]

The CAAF then turned to the substantive issue of whether the appellant's act of nodding his head qualified as an adoptive admission within the meaning of MRE 801(d)(2).[xliv] Adopting a three-element foundational analysis employed both in the federal circuit courts and in the Army and Navy service courts,[xlv] the CAAF held that the military judge abused his discretion in admitting the appellant's nod as an adoptive admission.[xlvi] The test adopted by the CAAF requires a military judge to make three predicate findings before admitting evidence of an adoptive admission.[xlvii] First, the party against whom the statement is admitted must be present when it is made. Second, the party must understand the statement. Third, the party's actions, words, or both must unequivocally acknowledge the statement he is adopting as his own.[xlviii]

In the instant case, there were two fatal ambiguities pertaining to SA Ansdale's question: first, the agent could not remember exactly what the question was; and second, the question he asked was not only ambiguous, it was compound.[xlix] I_t was therefore impossible to know whether the appellant had understood the question or

what the nodding gesture meant.[l] The CAAF further held that the military judge's error in admitting the gesture as an adoptive admission was prejudicial. The CAAF reversed and set aside the findings and sentence for the rape and unlawful entry charges.[li]

Datz is an excellent common-sense application of MRE 103. When counsel sense error but cannot remember a specific rule number, *Datz* teaches that one can preserve the issue for later appellate review by making a timely objection and making an argument that is specific enough for the military judge and the reviewing court to identify the issue. In other words, counsel should get up on their feet and start talking! Provided that all parties are discussing the same issue, any evidentiary error will be preserved for appeal. Military judges, of course, can clarify matters by asking counsel specific questions oriented on the actual written provisions of the MRE.

The CAAF's new approach for adoptive admissions provides counsel with a clear framework for analyzing adoptive admissions issues. In addition, *Datz* serves as a warning to trial counsel about the dangers of "gesture confessions." The questions asked must be clear and unambiguous and the gesture unequivocal before it will pass muster as an adoptive admission. Counsel facing issues involving gesture confessions should carefully read the *Datz* case as well as a CAAF case from the 2003 term of court, *United States v. Kaspers.*[lii]

Military Rule of Evidence 304(g): Corroboration of Confessions and Admissions

Military Rule of Evidence 304(g) codifies the common-law principle that a criminal defendant's confession should not be admitted against him unless there is independent corroborating evidence of guilt.[liii] In practice, the rule is not always easy to apply, and the CAAF's jurisprudence on corroboration has historically tended to muddy the waters rather than clarify the issues.[liv] *United States v. Arnold*[lv] continues the CAAF trend of shedding darkness on the corroboration rule.

The appellant in *Arnold* was convicted of one specification of wrongful distribution of ecstasy.[lvi] The charge arose from a September 2000 incident at a rave club involving the appellant and a group of fellow Soldiers. One of the Soldiers, Guisti, obtained ecstasy and distributed it to the others.[lvii] When the group's supply ran low, the appellant obtained more ecstasy and again distributed it to the group.[lviii] Guisti later became the subject of a Criminal Investigation Division (CID) investigation, in which he implicated the appellant in a variety of drug offenses but did not mention the appellant distributing ecstasy.[lix] The appellant made a statement to CID admitting to distribution of ecstasy and also lysergic acid diethylamide (LSD).[lx]

The government brought charges against the appellant for conspiracy to distribute LSD and distribution of LSD.[lxi] During an Article 32 investigation, the investigating officer determined that the LSD charges were not supported by sufficient evidence. The investigating officer, however, concluded that reasonable grounds existed to charge the appellant with conspiracy to distribute ecstasy and distribution of ecstasy.[lxii] The government withdrew the charge for conspiracy to distribute LSD, but went forward on charges for distribution of LSD and distribution of ecstasy. Following arraignment on those charges, the military judge granted a defense motion to reopen the Article 32 investigation to properly investigate the charge of ecstasy distribution; the subsequent reinvestigation determined that reasonable grounds existed to support the ecstasy distribution charge.[lxiii] Guisti said nothing under oath about the appellant's ecstasy distribution at either of the Article 32 investigations.[lxiv]

The appellant's confession was admitted against him at his court-martial.[lxv] Guisti testified for the government, and for the first time since the incident, stated under oath that the appellant had distributed ecstasy to him.[lxvi] This was the only evidence corroborating the appellant's confession. On cross-examination, Guisti admitted that he had reviewed the appellant's statements with the trial counsel prior to trial.[lxvii] Questioned by the military judge, he stated that the subject had not come up in any previous official questioning. The military judge then

asked, "So is today, in court, the first time you told that to anybody?"[lxviii] Guisti replied that it was the first time he had done so "on the record," and, when pressed further by the military judge as to what he meant by "on the record," Guisti replied, "I told the defense attorney when she was questioning me before the Article 32."[lxix] Subsequent questioning established that the conversation with the defense counsel took place immediately before the reopened Article 32 investigation and about two weeks prior to trial.[lxx]

The defense counsel objected to Guisti's testimony on the grounds that it was inadequate corroboration for the appellant's confession; the defense did not, however, claim at trial that Guisti's testimony was not derived independent of the confession.[lxxi] On appeal, appellant argued that Guisti's testimony was derived exclusively from reading the appellant's confession prior to the trial.[lxxii]

The CAAF held that the military judge did not err in ruling that Guisti's testimony provided independent corroboration of the appellant's confession.[lxxiii] As a threshold matter, the court noted that the law requires that a confession be corroborated by independent evidence, which cannot be solely derived from the accused's own confession.[lxxiv] In the instant case, the CAAF found it significant that Guisti implicated the appellant for wrongful distribution of ecstasy in a private conversation with the appellant's defense counsel prior to the government's reopening of the Article 32 investigation, and prior to Guisti ever reading the appellant's confession.[lxxv] This, according to the CAAF, was enough to demonstrate that Guisti's corroboration of the confession was independent of the confession itself. The CAAF held that the military judge did not err in admitting Guisti's testimony in corroboration of the appellant's confession.[lxxvi]

A pretrial conversation between the chief government witness and the accused's defense counsel is a slender thread upon which to hang a confession. If such a conversation represents the only independent source to corroborate the accused's confession, the CAAF's decision in *Arnold* puts defense counsel in a tenuous position when interviewing government witnesses. To avoid running afoul of the prohibition against acting as a witness and counsel in the same proceeding,[lxxvii] defense counsel may want to include third parties when interviewing government witnesses. More troubling still is the government practice in *Arnold* of showing a witness the accused's confession prior to trial;[lxxviii] had the trial counsel refrained from such activity, the independent source issue might never have arisen at trial. While it remains true that a confession is among the strongest forms of proof known to the law,[lxxix] *Arnold* continues a disturbing trend of weakening what is required to corroborate the confession.

Military Rules of Evidence 401 and 403: Logical and Legal Relevance

In *United States v. Barnes,*[lxxx] the Navy-Marine Court of Criminal Appeals (NMCCA) dealt with the constitutional right of a criminal accused to present logically and legally relevant evidence in his defense. The appellant in *Barnes* was an enlisted man assigned to the forward propulsion room of the USS John F. Kennedy. He was subjected to multiple incidents of severe physical abuse from his shipmates.[lxxxi] When his complaints went unheeded, he went absent without leave (AWOL).[lxxxii] Relatives persuaded him to return to the ship, where he was assigned to work in exactly the same location with the same individuals as before. Upon his return, his shipmates told him "tomorrow is a whole new day," which he interpreted to mean that he would be beaten worse than before.[lxxxiii] He went AWOL again and remained absent for fifty-two months.[lxxxiv]

At trial, he attempted to raise the defense of duress by introducing evidence of the abuse he suffered at the hands of his shipmates.[lxxxv] The government, however, prevailed in a pretrial motion in limine to prevent the appellant from testifying about his reasonable apprehension of death or serious bodily injury. The military judge ruled that the offenses of desertion and unauthorized absence terminated by apprehension are continuing offenses.[lxxxvi] Since the appellant did not continually fear for his safety throughout the entire period of his absence, the military judge ruled that the appellant

had failed to establish a necessary element of the affirmative defense of duress.[lxxxvii] Accordingly, the military judge did not permit the testimony concerning the beatings and abuse aboard the ship. The military judge ruled that the issue of duress would be preserved for appeal, and the appellant pled guilty to the lesser included offense of unauthorized absence terminated by apprehension.[lxxxviii]

The NMCCA held that the military judge erred by ruling that the offenses of desertion and unauthorized absence terminated by apprehension were continuing in nature; case law makes it clear they are instantaneous, not continuing offenses.[lxxxix] Thus, the appellant's state of mind at the time of his absence was critical to evaluating the affirmative defense of duress.[xc] The NMCCA observed that a criminal accused has a constitutional right to present logically and legally relevant evidence at trial.[xci] In this case, the appellant's evidence, if believed, could support a defense of duress and was therefore both logically and legally relevant.[xcii] The military judge's ruling effectively denied the appellant the right to constitutional due process and to a fair and impartial trial.[xciii] Accordingly, the NMCCA reversed and set aside the findings and the sentence.[xciv]

The NMCCA's opinion in *Barnes* confirms the basic admissibility standards of MREs 401, 402 and 403: legally and logically relevant evidence is admissible at trial unless precluded by other specific rules of evidence.[xcv] When a criminal accused is legally entitled to present a defense, he also has the right to present relevant evidence to support the defense. *Barnes* is a good reminder of the symbiotic relationship between the theory of the case and relevance under the rules.

In *United States v. Johnson,*[xcvi] the CAAF examined the relevance of a criminal accused's bank records to help show motive to wrongfully distribute marijuana. The appellant in *Johnson* gave consent for police officers to search his vehicle when he was pulled over for a traffic violation while driving home on leave. The police discovered a sealed box that contained approximately $17,000 worth of compressed marijuana bricks. [xcvii] The appellant claimed he was transporting the box for a friend and had no idea it contained marijuana.[xcviii]

At appellant's trial for wrongful possession of marijuana with intent to distribute, the government introduced appellant's bank records from the previous twelve months to demonstrate a financial motive to distribute marijuana.[xcix] The military judge admitted the evidence over defense objection.[c]

The CAAF examined two issues: first, whether the evidence of the appellant's financial condition was relevant, and second, whether the probative value of the evidence was substantially outweighed by the danger of unfair prejudice.[ci] As a threshold matter, it is noteworthy that in evaluating these issues of logical and legal relevance, both of which are the subject of specific evidentiary rules,[cii] the CAAF did not once cite the MRE.[ciii]

On the issue of logical relevance, the CAAF held that evidence of poverty, standing alone, is only marginally relevant to demonstrate a motive to sell drugs. In this case, the government did nothing more than show that the appellant struggled financially and lived month-to-month. The CAAF observed that the appellant's financial struggles made him no different from many other servicemembers.[civ] The minimal probative value of the evidence was outweighed by the danger of unfair prejudice because it permitted the panel to infer that poverty is itself a motive to commit a crime.[cv] Given the strength of the government case and the incredible nature of the appellant's story, however, the error was harmless.[cvi]

Despite its puzzling failure to cite the MRE in ruling on an evidentiary issue, the CAAF did provide sound guidance to practitioners on evaluating when financial status evidence is relevant at trial. The threshold requirement, of course, is that counsel must show a specific relevant link between the financial status evidence and the charged offense.[cvii] Citing a number of state and federal cases, the CAAF listed several circumstances under which the evidence would be relevant: to show imminent and dire financial need, to illustrate unexplained

wealth or living beyond one's means, or to explain a sudden and drastic change in a bank account balance.[cviii]

The CAAF's doctrinally sound approach on the relationship between logical relevance and admissibility in *Johnson* stands in stark contrast to *United States v. Brewer*,[cix] in which a divided CAAF held that the appellant's due process rights trumped specific rules of evidence that would have prevented the appellant from raising a novel defense at court-martial.

The appellant in *Brewer,* an Air Force master sergeant with over twenty years of service,[cx] tested positive for marijuana use during a random urinalysis test.[cxi] Following the urinalysis, the government obtained a search authorization to test a hair sample from the appellant, which also tested positive for marijuana use. Based on the hair analysis, an Air Force expert determined that the appellant had used marijuana at least thirty times during the previous twelve months.[cxii] The appellant was charged with using marijuana on divers occasions over a one-year period.[cxiii]

The government relied on the testimony of the hair analysis expert and the permissive inference of wrongfulness to establish the element of wrongful use.[cxiv] The appellant countered with a novel defense, a combination of alibi and innocent ingestion.[cxv] In support of the defense, the appellant offered testimony from five witnesses who had spent significant time with him the previous year and could testify that they had not seen him use marijuana or suffer from the effects of it.[cxvi] The government moved in limine to preclude this testimony, arguing that because the appellant was not charged with marijuana use on specific dates and times, the only relevant alibi evidence he could offer would be a witness who had spent the entire year with him.[cxvii] The military judge granted the motion, excluding the testimony of four of the witnesses, but permitting testimony from the appellant's girlfriend. The military judge also rejected the defense's motion for reconsideration at the close of the trial counsel's case.[cxviii]

At trial, the appellant presented a type of innocent ingestion defense, introducing testimony from his girlfriend concerning the strict "no marijuana" rule the couple had in their home. The appellant also introduced testimony from a friend of his nephew, who stated that he and the nephew (who lived in the appellant's home) often smoked marijuana in the home and had once made a pot of marijuana-laced spaghetti sauce and left it on the stove.[cxix] Appellant's defense counsel argued in closing that the innocent ingestion probably occurred as a combination of residual smoke inhalation and ingestion of the spaghetti.[cxx]

On appeal, the appellant argued that the military judge erred in preventing him from using his "mosaic alibi" defense.[cxxi] Citing MRE 401, the majority declared the evidence to be logically relevant. The appellant's witnesses would have testified that they spent a great deal of time with the appellant during the charged time period and had never seen him use drugs or appear under the influence of drugs, which the majority stated would "go to the issue of whether [the appellant] knowingly and wrongfully used drugs at least thirty times during the charged period."[cxxii] The majority also believed that evidence from the excluded witnesses would have bolstered the appellant's innocent ingestion defense.[cxxiii] However, the majority agreed with the lower court's analysis that the evidence was not admissible under Rules 404 and 405 because it was testimony of specific instances of conduct as character evidence that did not meet any of the criteria for admissibility under those rules.[cxxiv]

Recognizing that Rules 404 and 405 could not provide a vehicle for admitting the evidence at trial, the majority then turned its attention to "the question of whether this type of testimony may be admissible on other grounds."[cxxv] The majority first noted that the government had a tremendous advantage in this case because it was able to rely on the permissive inference of wrongful use without having to allege specific dates and times of use.[cxxvi] While accepting the validity of the government's charging decision and method of proof, the majority stated that the government's reliance on the permissive inference of wrongful use "requires that a court allow a defendant some leeway to rebut

that inference by using testimony such as that proffered by Brewer in this case."[cxxvii] To bridge the gaping chasm between the plain language of MREs 404 and 405, which specifically prohibit evidence of this type, the majority relied on the somewhat amorphous concept of due process, declaring that the military judge's ruling violated the appellant's due process right to present witnesses in his own defense.[cxxviii] Accordingly, the majority held that the military judge, who had followed the MRE to the letter, abused his discretion in excluding the evidence.[cxxix]

In separate opinions, two judges dissented from the majority opinion. Judge Crawford argued that the appellant could have introduced his character for law-abidingness or presented good Soldier defense evidence, but he chose not to.[cxxx] She also noted that the Due Process clause requires the observance of basic procedural safeguards but is not a source of evidentiary rules, particularly when other rules of evidence speak to the issue.[cxxxi]

Judge Baker argued in dissent that the majority misapplied the abuse of discretion standard. With respect to three of the excluded witnesses, the military judge did not abuse his discretion because the "mosaic alibi" witnesses were not relevant to the defense of innocent ingestion.[cxxxii] Judge Baker believed that testimony from the fourth witness was relevant to the defense of innocent ingestion, but any error in excluding that witness's testimony was harmless. First, using other witnesses, the appellant was actually able to present his defense. Second, given the strength of the government's evidence rebutting the defense of innocent ingestion, exclusion of the fourth witness's testimony did not substantially influence the panel's findings.[cxxxiii]

From an evidentiary standpoint, *Brewer* is a bombshell. Broadly viewed, the majority opinion essentially states that logical relevance and the due process right to present a defense trump the specific modes of proof contained in the MRE. This opens new evidentiary vistas to creative counsel who can paint military judges into constitutional corners. Counsel who believe that the specific language of the Rules inhibits their ability to call witnesses and introduce relevant evidence may consider using *Brewer* to support a more permissive approach to admission. A more narrow view would restrict the majority opinion to drug cases involving the permissive inference of wrongful use, chalking the majority opinion up as another example of the CAAF's antipathy towards the government's ability to employ the permissive inference.[cxxxiv] Even a narrow interpretation of the case, however, changes the nature of the game in permissive use cases. Military judges cannot simply look at the MRE to evaluate the admissibility of defense evidence in permissive use cases; *Brewer* seems to require not only an evidentiary analysis, but also a constitutional analysis.

Military Rule of Evidence 404(b): Uncharged Misconduct

Although MRE 404(b) prevents the use of specific uncharged acts to prove propensity, the rule permits the introduction of uncharged acts for non-character purposes, including "proof of motive, opportunity, intent, preparation, plan, knowledge, identity, or absence of mistake or accident."[cxxxv] Military courts consistently apply the three-part test from *United States v. Reynolds* in deciding whether to admit evidence of uncharged acts: (1) there must be proof that the accused actually committed the uncharged acts; (2) the acts must make an issue of consequence in the proceedings more or less probable than it would be without the evidence; and (3) the evidence must survive an MRE 403 balancing test.[cxxxvi] As demonstrated by recent trends in the military appellate courts, application of the *Reynolds* test occasionally proves problematic at the trial level.[cxxxvii] During the 2005 term of court, the CAAF decided three cases involving uncharged misconduct and the application of the *Reynolds* test.

United States v. Rhodes[cxxxviii] is the first of this term's uncharged misconduct cases. The appellant in *Rhodes* was charged with the use and possession of psilocyn, a hallucinogenic substance found in mushrooms.[cxxxix] The government's chief witness was Senior Airman (SrA) John Daugherty, who had provided

investigators with a five-page handwritten confession implicating both himself and the appellant in the offenses.[cxl] At trial, Daugherty claimed loss of memory, and the military judge permitted admission of his statement under MRE 804 as a statement against interest.[cxli]

Daugherty's memory loss and the appellant's role in his memory loss were hotly contested issues in the case. Daugherty testified that approximately four months after his confession, the appellant approached him and asked him to speak to the appellant's defense counsel.[cxlii] Daugherty spoke to the defense counsel by telephone and later visited the counsel's office, where he signed an affidavit claiming that he no longer remembered the details of the mushroom transaction and that it was likely the appellant never went with Daugherty to purchase mushrooms. Daugherty also testified that neither the appellant nor his defense counsel suggested that he forget what had happened or lie about it.[cxliii] The defense filed an unsuccessful pretrial motion in limine to preclude evidence suggesting that the appellant had obstructed justice by asking Daugherty to change his testimony.[cxliv]

Applying MRE 404(b) and the *Reynolds* test, the military judge permitted the government to introduce evidence that SrA Daugherty's memory loss immediately followed a meeting with the appellant and his attorney in order to demonstrate the appellant's consciousness of guilt.[cxlv] In his opening statement, the trial counsel told the members that Daugherty lost his memory within hours of the appellant's request that Daugherty meet with appellant's lawyer, and the evidence would prove that the appellant encouraged Daugherty to forget appellant's involvement.[cxlvi] The military judge instructed the members that evidence the appellant might have contributed to Daugherty's memory loss could be considered for the limited purpose of showing the appellant's consciousness of guilt.[cxlvii] He also instructed the members that there was nothing per se improper with the appellant or his attorney meeting with appellant's defense counsel.[cxlviii] During closing argument, the trial counsel highlighted the "unscrupulously, unusual visit" between the appellant and Daugherty, after which "Daugherty's memory [went] poof and disappeared," suggesting that the appellant and Daugherty conspired to create "this preposterous memory loss"[cxlix]

The Air Force Court of Criminal Appeals (AFCCA) affirmed, and the CAAF granted review on the issue of whether the military judge abused his discretion in admitting evidence of the meeting between appellant and SrA Daugherty to demonstrate consciousness of guilt under MRE 404(b).[cl]

The CAAF analyzed the admissibility of the uncharged misconduct evidence under the third prong of the *Reynolds* test and held that the military judge clearly abused his discretion in admitting the evidence.[cli] Citing *Taylor v. Baltimore & Ohio R.R. Co.,*[clii] a Second Circuit case from 1965, the CAAF pointed out that a witness's change in memory is insufficient by itself to support an inference of wrongdoing by the party benefiting from the change, an observation buttressed by Daugherty's in-court testimony that the appellant had nothing to do with his memory loss. [cliii] The CAAF noted the incongruity of the government relying on Daugherty's in-court testimony that his confession was accurate when given, while at the same time disavowing his in-court testimony that the appellant had nothing to do with his memory loss.[cliv] The combination of these factors created the risk that the probative value of the memory loss as evidence of the appellant's guilt was substantially outweighed by the danger of unfair prejudice to the appellant.[clv]

According to the CAAF, the military judge also erred by admitting the evidence for an improper purpose. It would have been permissible to admit the evidence to evaluate the truthfulness of Daugherty's claim of memory loss, but not to demonstrate appellant's consciousness of guilt.[clvi]

Finally, the CAAF evaluated the military judge's error for prejudice to the appellant. Where evidence is improperly admitted under MRE 404(b), the test for prejudice is whether the court can say that the judgment was not substantially swayed by the error.[clvii] In the instant case, the "suggestion that Appellant

suborned perjury could have been crucial to the outcome" of an otherwise close case.[clviii] Accordingly, the CAAF reversed and set aside the findings and sentence pertaining to the psilocyn charges.[clix]

Two judges dissented in separate opinions. Judge Crawford argued that all three prongs of the *Reynolds* test were satisfied and that the majority had inappropriately usurped the role of the members in speculating as to alternative explanations for the sudden change in Daugherty's testimony after his meeting with the appellant.[clx] She took the majority to task for using the *Taylor* case and omitting from its opinion the inconvenient fact that the witness's memory loss in *Taylor* occurred over a period of five years, not within five months of the incident and immediately following a meeting between the witness and the appellant's defense counsel.[clxi] Judge Erdmann also dissented on the grounds that the majority had not properly applied the abuse of discretion standard of review to the military judge's ruling.[clxii] The standard is not whether the appellate court disagrees with the trial judge, but rather whether the military judge acted arbitrarily or reached a clearly untenable conclusion.[clxiii] Given the facts and reasonable inferences arising therefrom, Erdmann would find no abuse of discretion.[clxiv]

Rhodes is significant because it demonstrates the CAAF's continued willingness to closely examine the admission of uncharged misconduct evidence at trial and to readily substitute its judgment for that of a military judge. The "clear abuse of discretion" standard the majority employed in its analysis[clxv] appears to be nothing more than an announcement of strong disagreement with the facially reasonable findings and ruling of the military judge. The case illustrates the value for defense counsel of filing and litigating motions in limine in order to preserve issues for appeal. With a watered-down "clear abuse of discretion" standard, counsel can feel reasonably confident in prevailing on appeal if not at trial on uncharged misconduct issues. For military judges, *Rhodes* actually reduces the value of the CAAF's prior cases on uncharged misconduct evidence: when an appellate court applies so little deference to a judge's findings of fact, the task of recognizing and applying precedent—as the military judge attempted to do in relying on the *Reynolds* test at trial—becomes manifestly more difficult.

In *United States v. Bresnahan,*[clxvi] another uncharged misconduct case, the CAAF found error in admitting uncharged misconduct but affirmed on grounds that the error was harmless. The appellant in *Bresnahan* was convicted of involuntary manslaughter for the shaken-baby death of his three-month-old son.[clxvii] Evidence at trial suggested that there were just two possible perpetrators: the appellant and his wife.[clxviii] The appellant, however, had confessed to shaking his son.[clxix] Rejecting a defense motion in limine, the military judge permitted the government to introduce X-ray and autopsy evidence of non-accidental rib fractures the infant had suffered some four to eight weeks prior to the evening of his death, even though the injuries were not specifically linked to the appellant.[clxx] The military judge instructed the members that they could consider the evidence as an indicator that the shaken-baby injuries were not accidental.[clxxi] The military judge further instructed the members that they could consider the injuries as bearing on the appellant's intent to shake his son only if the members concluded that the appellant had inflicted the injuries.[clxxii] The Army Court of Criminal Appeals (ACCA) held that the military judge abused his discretion in admitting the evidence because there was no evidence the appellant had actually inflicted the uncharged injuries. Given the strength of the government case, however, the error was harmless.[clxxiii]

The CAAF affirmed, holding that it was indeed error to admit the uncharged misconduct evidence, but that it was harmless given the overwhelming strength of the government case against the appellant and the weakness of the defense case.[clxxiv] The government's case was strong, consisting of the appellant's admissions and confessions to a criminal investigator and two doctors, as well as testimony from five doctors who concluded that the child had died from being shaken. Furthermore, there was little risk of prejudice against the appellant, because the evidence helped establish at best that the shaken-baby injuries

were caused by abuse rather than accident, an issue not even in dispute in the case.[clxxv]

Bresnahan is a fairly straightforward application of the first prong of the *Reynolds* test: the proponent must show that the accused actually committed the uncharged misconduct. Although this concept seems simple, *Bresnahan* is the second child-death case in three years in which the CAAF has found error in a military judge admitting evidence of injuries not actually linked to the appellant; in 2003, the CAAF not only found error, but reversed and set aside the findings and sentence in *United States v. Diaz,* holding that the military judge erred to the prejudice of the appellant by introducing evidence of injuries that were not linked to the appellant.[clxxvi] The lesson for counsel and military judges is clear: if counsel cannot provide a clear link between the uncharged misconduct and the accused, the evidence should be excluded from trial.

United States v. Hays[clxxvii] is the CAAF's final Rule 404(b) case from the 2005 term of court. In a judge-alone mixed-plea trial, the appellant in *Hays* was convicted of, among other things, possessing child pornography and soliciting another to commit carnal knowledge with a minor.[clxxviii] The solicitation charge centered around an e-mail the appellant sent to an on-line acquaintance named J.D., in which the appellant asked J.D. if he had forced a particular nine-year-old girl to have sexual intercourse with him, requested pictures and video of sexual activity between J.D. and the nine-year-old, and promised J.D. pictures and video of the appellant raping a young girl he planned to adopt.[clxxix]

In support of the solicitation charge, the government introduced several items of uncharged misconduct: e-mail containing pictures of minors engaging in sexually explicit conduct; pictures of adults engaging in bestiality; requests from the appellant for pictures and video of children participating in sexual activity with adults; and an e-mail to other members of his e-mail list threatening to remove them from the list if they did not provide "hardcore pix."[clxxx] The defense unsuccessfully objected on grounds of relevance and improper character evidence.[clxxxi]

In affirming the military judge's decision to admit the evidence, the CAAF conducted *a Reynolds* analysis, evaluating the evidence in light of all three prongs of the test. The CAAF made short work of the first prong, simply stating the evidence was sufficient to show that the e-mails and images were on the appellant's computer and e-mail accounts.[clxxxii] As for the second prong, the CAAF held that the evidence made a fact of consequence in the action more probable than it would be without the evidence. The court rejected appellant's argument that the evidence showed nothing more than that the appellant enjoyed viewing child pornography. Instead, the court focused on the central issue with the solicitation charge—the appellant's intent to solicit another person to commit carnal knowledge with a child—and stated that the evidence was critical to evaluating the appellant's state of mind, an important component of intent evidence.[clxxxiii] The CAAF also found the evidence to be relevant on the issue of motive.[clxxxiv] The third prong of the *Reynolds* test was satisfied because the military judge performed an MRE 403 balancing test and ruled that the probative value of the evidence was not substantially outweighed by its prejudicial impact. Furthermore, the danger of unfair prejudice was low because the case was tried before a military judge alone, and the CAAF presumes that when evidence is admitted by a military judge for a limited purpose, the judge will consider it only for that purpose.[clxxxv]

Judge Erdmann dissented on the uncharged misconduct issue. In his opinion, the misconduct was relevant to show that the appellant liked to view child pornography, but not to show intent to seriously solicit another person to engage in carnal knowledge with a minor child.[clxxxvi]

Hays is a classic example of how uncharged misconduct evidence can be used at trial for legitimate non-character purposes. The evidence went beyond merely showing that Hays was a pervert who liked to look at electronic child pornography. The evidence helped establish Hay's state of mind and his intent to not only look at child pornography, but also to participate in

sexual acts with young children and to encourage other people to do so in order to satisfy his prurient interests. It was therefore critical to proving the solicitation charge against the appellant. The evidence fit the government's theory of the case in a way that clearly satisfied MRE 404(b)'s prohibition against introducing character evidence for propensity purposes only.

Closely related to uncharged misconduct under MRE 404(b) is sexual propensity evidence under MREs 413 and 414. The 2005 term of court featured two cases of note: *United States v. Berry,*[clxxxvii] a CAAF case that put significant limits on the government's ability to admit uncharged sexual misconduct committed when the accused was an adolescent, and *United States v. James,*[clxxxviii] a case in which the AFCCA affirmed the introduction of post-offense uncharged sexual misconduct to prove propensity.

The appellant in *Berry* performed oral sodomy on another male Soldier, SGT T, who was severely intoxicated.[clxxxix] In this "he-said/he-said" case,[cxc] both participants differed on whether the sodomy was consensual or forcible.[cxci] At trial, the government introduced evidence that when the appellant was thirteen years old, he persuaded a six-year-old boy to participate in oral sodomy with him. The evidence was proffered under MRE 413 to demonstrate that the appellant had a propensity to take sexual advantage of vulnerable victims.[cxcii] The military judge overruled the defense objection to the evidence. Although the military judge made several findings of fact, he did not conduct a thorough MRE 403 balancing test using all the factors the CAAF set out in *United States v. Wright,*[cxciii] a case in which the CAAF held that MRE 413 adequately preserves the accused's constitutional rights if the judge conducts a proper balancing test under MRE 403.[cxciv] The trial counsel referred to the uncharged acts both in opening statement and closing argument, reminding the members that the uncharged acts were relevant "'because [Berry] (sic) took advantage of a person in a vulnerable position just like he did here in the case that you're deciding.'"[cxcv] Following the appellant's conviction, the ACCA reviewed the military judge's ruling and found that the military judge had conducted an adequate balancing test.[cxcvi]

The CAAF granted review on the issue of whether the military judge abused his discretion in admitting evidence of uncharged sexual misconduct committed when the appellant was an adolescent.[cxcvii] The CAAF began its opinion by reviewing the threshold requirements for admissibility of uncharged sexual acts under MRE 413: (1) the accused must be charged with an offense of sexual assault; (2) the evidence proffered must be evidence of the defendant's commission of another instance of sexual assault; and (3) the evidence must be relevant under MREs 401 and 402.[cxcviii] Logical relevance, however, is not sufficient alone for admitting uncharged sexual acts—the evidence must also pass the legal relevance test of MRE 403.[cxcix] The CAAF cited not only MRE 403, but also the enhanced *Wright* factors a military judge should consider.[cc]

Signaling its ultimate holding in the case, the majority noted that where a military judge is required to conduct a balancing test under MRE 403 and "does not sufficiently articulate his balancing on the record," the CAAF will grant less deference to his ruling than otherwise.[cci] The majority held that the evidence was logically relevant under MRE 401 and 402 because it could tend to show a propensity to take sexual advantage of a vulnerable victim.[ccii] The military judge erred to the prejudice of the accused, however, by not conducting a detailed rule 403 balancing test on the record as required by *Wright.*[cciii] Although the military judge addressed several of the *Wright* factors, he only emphasized those that tended to support admission of the testimony and failed to address the remaining factors.[cciv] In the majority's view, the differences between the appellant's charged offense and the uncharged misconduct were significant enough to hold that the military judge abused his discretion in admitting the evidence.[ccv]

One of the most significant differences in the *Berry* case between the charged and uncharged misconduct had to do with the age of the appellant for each incident. The charged incident took place when the appellant was an

adult and with an adult victim, but the uncharged incident occurred when the appellant was just thirteen years old with a six-year-old victim.[ccvi] Citing a 2004 case, *United States v. McDonald,*[ccvii] in which the CAAF found evidence of adolescent uncharged sexual misconduct irrelevant for 404(b) plan and intent purposes, the CAAF noted that significant differences exist between adolescents and adults.[ccviii] The court warned that military judges must exercise great caution "[w]hen projecting on a child the mens rea of an adult or extrapolating an adult mens rea from the acts of a child";[ccix] the differences in time, experience and maturity constitute significant intervening circumstances for *Wright* and MRE 403 purposes.[ccx]

The CAAF also examined the potential of the uncharged misconduct to distract the fact-finder, another *Wright* factor not specifically addressed by the military judge. In this case, the prosecutor's repeated references to the six-year-old victim "characterized Berry in the eyes of the members as a child molester, one of the most unsympathetic characterizations that can be made."[ccxi] What limited probative value the evidence had was outweighed by the danger that the members would consider the evidence for an improper purpose.[ccxii]

The court held that the military judge abused his discretion in admitting the appellant's uncharged adolescent sexual misconduct against him and that the error materially prejudiced the appellant's substantial rights.[ccxiii] Accordingly, the court set aside the appellant's conviction for forcible sodomy.[ccxiv]

Judge Crawford concurred in the result and agreed with the majority that the military judge abused his discretion under MRE 403.[ccxv] However, she objected to the majority's conclusion that the appellant's adolescent sexual misconduct was logically relevant to the charged offense. In a rather confusing tautology, her concurring opinion stated that evidence must be logically relevant before it can be legally relevant, but if the evidence is not legally relevant, it cannot be logically relevant.[ccxvi] This formula ignores the basic structure of MREs 401 and 403, which certainly suggest that logically relevant evidence under MRE 401 might not be legally relevant for the purposes of MRE 403.[ccxvii] In her view, happenstance of similar conduct does not create logical relevance, particularly when the uncharged misconduct was committed by an adolescent.[ccxviii]

The majority opinion in *Berry* goes a long way towards resolving potentially unfair applications of MRE 413. Coupled with last year's opinion in the *McDonald* case, it is fair to say that uncharged adolescent sexual misconduct is presumptively inadmissible under the MRE. To overcome the presumption and to bridge the gulf between the adolescent and adult mindset, counsel bear a heavy burden. Expert testimony about the state of mind of the accused as an adolescent and as an adult will almost certainly be required. One can envision circumstances under which adolescent sexual misconduct would be admissible or a continuing course of conduct, misconduct committed in the later teen years if the accused is being tried as a young adult, or compelling factual similarities—but they will be exceptions to a general rule, and under *Berry,* very difficult exceptions to obtain.

But *Berry* goes beyond adolescent sexual misconduct. The opinion ends the almost reflexively automatic admission of uncharged sexual misconduct permitted under a facial analysis of the rules. By making it clear that the *Wright* factors are not a menu, but rather a checklist to be taken seriously, *Berry* increases the burden on military judges to carefully weigh not only similarities between charged and uncharged sexual misconduct, but also to meticulously analyze the differences.

In addition, the differing interpretations by CAAF members concerning such seemingly basic concepts as logical and legal relevance create intriguing opportunities for future litigation. A pure analysis of MRE 401 would suggest that almost anything is logically relevant at trial,[ccxix] but if Judge Crawford's analysis in the concurring opinion gains traction with the court, the legal relevance principles of MRE 403 could potentially play a significant role in evaluating logical relevance under MRE 401.

Less revolutionary than *Berry,* but still

significant, is the AFCCA's case of *United States v. James.*[ccxx] The appellant in *James* was a youth leader at the base chapel. He developed a romantic interest in a fifteen-year-old girl that led to sexual activity, including fondling and what the victim called "clothes sex"—simulated sexual intercourse while wearing clothing.[ccxxi] These offenses occurred on 17 June and 7 July of 2001.[ccxxii] At his trial for indecent acts, the military judge permitted the government to call, over defense objection, another teenage girl who testified that the appellant had participated in similar activities with her *after* the charged offenses: 16 July, 23 July, and 2 August 2001.[ccxxiii]

The AFCCA examined the issue of whether the military judge abused his discretion by permitting the government to introduce post-offense uncharged sexual propensity evidence under MRE 414.[ccxxiv] As a threshold issue, the AFCCA determined that the admissibility requirements of *United States v. Wright,* a case decided pursuant to MRE 413, also apply to cases decided under MRE 414; the only significant difference between Rules 413 and 414 is the applicability of the latter to offenses of child molestation.[ccxxv]

The AFCCA then addressed whether MRE 414 prohibits the introduction of post-offense uncharged misconduct. The appellant argued that the legislative history of Rules 413 and 414 supports the admission of pre-offense uncharged misconduct only. Rejecting appellant's argument, the AFCCA adopted a plain-language approach to interpreting the rule. Nothing in the text of MRE 414 prohibits the introduction of post-offense uncharged sexual misconduct.[ccxxvi] Further buttressing its position, the AFCCA observed that the *Wright* case itself involved an issue of post-offense uncharged misconduct.[ccxxvii] Additionally, the weight of authority both in the military and the federal courts permits the admissibility of post-offense uncharged acts under Rule 404(b).[ccxxviii]

The AFCCA next examined the evidence under the *Wright* factors. The evidence met the threshold requirements for admissibility: (1) the appellant was charged with an offense of child molestation; (2) evidence was proffered of uncharged acts of child molestation; and (3) the evidence was relevant under MRE 401/402.[ccxxix] Although the military judge did not make the enhanced *Wright* 403 findings on the record, the AFCCA was satisfied that by permitting both sides to argue prejudice under MRE 403, the military judge properly considered the *Wright* factors.[ccxxx] The AFCCA went a step further and briefly addressed each of the *Wright* factors, concluding that the evidence met the *Wright* admissibility standards. Accordingly, the AFCCA held that the military judge did not abuse his discretion in admitting the post-offense uncharged misconduct under MRE 414.[ccxxxi]

The CAAF has granted review of *James,* and in the light of *Berry,* it will be interesting to see whether the military judge's perfunctory approach to the *Wright* factors will survive further review. The AFCCA, of course, touched on the *Wright* factors, but only briefly. The issue of post-offense uncharged misconduct seems less significant than whether the military judge conducted a thorough review of the evidence under the *Wright* factors. Counsel and military judges should not hesitate to consider the admission of probative post-offense sexual propensity evidence, but the better practice is to adopt the thorough analysis of the evidence suggested in *Berry* than to fail to explicitly address the *Wright* factors or to breeze through them as the military judge and the AFCCA did in *James.*

Privileges

Although the MREs and FREs are identical in most respects, the two systems differ considerably in their approach to the law governing privileges. Privileges under the Federal Rules of Evidence (FRE) are "governed by the principles of common law as they may be interpreted by the courts of the United States in the light of reason and experience;"[ccxxxii] there are no codified privileges in the federal rules. The MRE, in contrast, contain nine codified privileges.[ccxxxiii] In addition, the MRE apply a relatively rigid hierarchy to the development of privilege law in which the *Manual for Courts-Martial (MCM)* takes clear precedence over "the principles of common law generally recognized in the trial of criminal cases in the United States district courts pursuant to rule

501 of the Federal Rules of Evidence.[ccxxxiv]" Any new privileges under FRE 501 must be "practicable" for application in trials by courts-martial, "and not contrary to or inconsistent with the Code, these rules, or this Manual."[ccxxxv]

Military appellate courts have exercised a great deal of restraint in expanding military privileges. Taking to heart the hierarchy in MRE 501, they have been reluctant to adopt new federal privileges,[ccxxxvi] modify existing privileges,[ccxxxvii] or expand exceptions to privileges.[ccxxxviii] This conservatism is based on the principle that a worldwide system of justice with ad-hoc courts and significant lay involvement requires greater certainty and stability than the Article III courts of the United States.[ccxxxix]

Military Rule of Evidence 504: Marital Communications Privilege

Military Rule of Evidence 504,[ccxl] the husband-wife privilege, protects confidential communications made between spouses during a marriage.[ccxli] There are several exceptions to the privilege: when the communication involves a crime against the person or property of the other spouse or a child of either, when the parties were involved in a sham marriage, or when the marriage is a vehicle for prostitution or interstate transportation for immoral purposes.[ccxlii] In addition, there are two closely related exceptions recognized in many jurisdictions. The first is the crime-fraud exception, which involves communications made between spouses in order to further a crime or fraud; the key to the exception is the intent of the parties at the time the communication was made.[ccxliii] The second is the joint-participant exception for "marital confidences that relate to ongoing or future crimes in which the spouses were joint participants at the time of the communication";[ccxliv] the key to the joint-participant exception is the status of the parties with respect to the illegal venture at the time the communication was made.[ccxlv]

The appellant in *United States v. Davis,*[ccxlvi] under investigation for possession of child pornography, consented to the search and seizure of his home computer by C*ID.*[ccxlvii] As a CID agent was enroute to appellant's home, appellant called his wife and ordered her to delete several files from the computer and empty the recycle bin. She complied, but CID was able to recover thousands of images of child pornography.[ccxlviii] Over defense objection, the military judge permitted the government to elicit testimony from the appellant's wife regarding the order to delete the files. The military judge ruled that appellant's statements to his wife were admissible under a "partnership in crime/crime-fraud exception to the marital communications privilege."[ccxlix]

The ACCA reviewed the military judge's decision to admit the evidence for abuse of discretion. The court reviewed the basic structure of MRE 504, including the limits of its exceptions, and then discussed the applicability of the joint-participant and crime-fraud exceptions in Army courts-martial.[ccl] In *United States v. Martel,*[ccli] a 1985 case, the Army Court of Military Review (now ACCA) recognized the joint-fraud exception to the marital communications privilege. However, in a confusing development nearly a decade later, in *United States v. Archuleta,*[cclii] the court declined to follow *Martel* and held, without expressly overruling *Martel,* that there is no provision in MRE 504 for a joint-participant exception.[ccliii] The ACCA also noted that the Air Force Court of Military Review adopted a crime-fraud exception to the marital communications privilege in 1990[ccliv] in the case of *United States v. Smith.*[cclv]

The ACCA declined to resolve the apparent conflict between *Archuleta* and *Martel,* simply stating that the statements at issue in *Davis* would be privileged even if *Martel* properly adopted the joint participant exception.[cclvi] The ACCA adopted the military judge's findings that both the appellant and his wife were knowing participants in criminal activity at the point when she began deleting files at the appellant's request. However, the ACCA did not agree that the communications were made in furtherance of a joint criminal venture.[cclvii] Carefully parsing the timeline of the day's events, the ACCA found that the appellant's request to destroy files was made *prior* to the beginning of the joint criminal venture. Accordingly, it was privileged. It would not fall under a joint-participant

exception because it preceded the joint criminal venture, which depends on the status of the parties in relation to the criminal enterprise at the time the statement was made.[cclviii]

The ACCA conceded that the appellant's statement would not be protected under a crime-fraud exception to the marital communications privilege, but the court declined to adopt the crime-fraud exception.[cclix] The court noted that MRE 504 is quite clear in the scope of the marital communications privilege. And where "a military rule promulgated by the President treats of an issue, recourse to Federal law—even though the rule may be similar—is not necessary, and, in fact, is not permitted."[cclx] Applying the rigid hierarchy of MRE 501 in interpreting the privilege,[cclxi] the ACCA stated, "in the absence of a constitutional, statutory, or regulatory requirement to the contrary, the decision as to whether, when, and to what extent" any crime-fraud exception would apply belongs to the President, not the ACCA.[cclxii]

Accordingly, the ACCA held that the military judge abused his discretion in allowing the wife to testify in contravention of the marital communications privilege. Applying the four-factor test of *United States v. Kerr,*[cclxiii] however, the ACCA held that the error was harmless—the strength of the government case was overwhelming; the defense case claim of innocent possession was weak and undermined by other evidence admitted in the case; the statement was material and important for its inculpatory value; and the statement's quality was not significant because it had been repeated to other people and other admissible evidence was available concerning the appellant's possession of child pornography.[cclxiv]

The significance of *Davis* lies in its classic approach to interpreting military privilege law. Although federal common law can be a source of military privilege law, it takes a subordinate position to codified military privileges, the MCM, and the purposes of military law. Novel interpretations of privilege law—particularly those that strip a criminal accused of protections—should be narrowly construed at courts-martial.[cclxv] *Davis* is also significant because it establishes that the crimefraud exception does not exist in Army courts-martial. Although the limits of the joint-participant exception in light of *Martel* and *Archuleta* remain unresolved, *Davis* does clarify that the timing of the communication in relation to the criminal enterprise is critical. If the communication occurs prior to the start of the venture, it will be privileged and not subject to the exception.

Opinion Testimony

Military Rule of Evidence 702 permits experts to testify concerning scientific, technical, or specialized knowledge that will help a trier of fact better understand the evidence or determine a fact at issue.[cclxvi] An expert occupies a unique position in a trial: unlike most other witnesses, the expert is not limited to fact testimony based on personal knowledge of the case[cclxvii] but is entitled to testify "in the form of an opinion or otherwise."[cclxviii] Because of the expert's special status at trial, the rules require the expert's testimony to be based on "sufficient facts or data" and to be "the product of reliable principles and methods" applied "reliably to the facts of the case."[cclxix] The CAAF decided several cases this term pertaining to the qualifications and reliability of expert testimony, the proper role of the expert at trial, and the scope of expert testimony.

The CAAF addressed expert qualifications and reliability in *United States v. Billings*.[cclxx] The appellant in *Billings* was the leader of the Gangster Disciples, a violent gang at Fort Hood that went on a crime spree in the summer of 1997 that included two killings and numerous other offenses.[cclxxi] Members of the gang robbed an apartment owner of cash and a Cartier Tank Francaise watch. The watch was never recovered, but the government did have photographs of the appellant wearing a similar watch that were admitted at trial to link the appellant to the robbery.[cclxxii]

The government called a local jeweler to testify as an expert in Cartier watch identification. The jeweler did not sell Cartier watches, nor had he ever actually seen a Cartier Tank Francaise watch. Defense counsel requested a full *Daubert* hearing to examine the qualifications of the

expert, but the military judge denied the request.[cclxxiii] At trial, comparing photographs of the stolen watch with a Cartier Tank Francaise watch advertisement, the jeweler testified that the watch in the photograph had similar characteristics to those found in Cartier watches. He also testified that based on the photograph, the watch appeared to be made of solid gold rather than gold plate.[cclxxiv]

On appeal, the CAAF examined the qualifications of the expert and the reliability of his methods and testimony. As a threshold matter, the CAAF reiterated that the six-factor test first promulgated by the Court of Military Appeals (CMA) in *United States v. Houser*[cclxxv] still applies to expert qualifications and testimony at trial.[cclxxvi] The first prong of the *Houser* test— the qualifications of the expert—was easily satisfied in *Billings.* Under MRE 702, an expert can be qualified by virtue of specialized knowledge or training.[cclxxvii] In this case, even though the jeweler had little experience dealing with Cartier watches, he did have twenty-five years of experience as a jeweler, and his expertise was helpful to the panel.[cclxxviii]

The appellant also argued that by comparing the watch in the photograph with a Cartier watch advertisement, the expert did nothing the panel members could not have done for themselves.[cclxxix] The CAAF disagreed, stating that the standard is not whether the jury could reach *any* conclusion without expert assistance, but whether the jury would be able to "determine intelligently and to the best possible degree the particular issue without enlightenment from those having a specialized understanding of the subject."[cclxxx] In this case, the expert knew more about Cartier watches than the panel members, and the CAAF held that the military judge did not abuse his discretion in qualifying the jeweler as an expert in Cartier watch identification.[cclxxxi]

The CAAF then addressed the reliability of the expert's method of determining that the watch in the photograph was made of real gold rather than gold plate. Citing *General Electric Co. v. Joiner,*[cclxxxii] the CAAF noted that an expert's opinion must be connected to the underlying data by more than the *ipse* dixit—or mere assertion—of the expert.[cclxxxiii] Military Rule of Evidence 702 and the controlling Supreme Court cases of *Daubert v. Merrell Dow Pharmaceuticals, Inc.*[cclxxxiv] and *Kumho Tire Co. v. Carmichael*[cclxxxv] require the military judge to exercise a gatekeeping function to determine the reliability of methods employed by expert witnesses.[cclxxxvi] Although the defense requested it, the military judge conducted no such analysis in this case.

The court reminded practitioners and military judges that the *Daubert* reliability factors—(1) whether a theory can be or has been tested; (2) whether the theory or technique has been subjected to peer review or publication; (3) the known or potential rate of error; and (4) whether the theory or technique is generally accepted—are a baseline for evaluating the reliability of expert testimony.[cclxxxvii] If those factors are not applicable, then it is up to the proponent of the evidence to identify alternative indicia of reliability.[cclxxxviii] In this case, the government failed in its burden to establish the reliability of the jeweler's testimony through the *Daubert* factors or alternative indicia of reliability, and the military judge abused his discretion by permitting the jeweler to identify solid gold in a photograph.[cclxxxix] Given the circumstances of the case, however, the error was harmless, and the CAAF affirmed.[ccxc]

Billings is an excellent primer for new counsel on the basic principles of expert witness testimony at courts-martial. The case reiterates the value of the six-factor *Houser* test in evaluating the qualifications of expert witnesses. In order to expedite resolution of expert witness issues at trial and on appeal, counsel would be well advised to frame expert witness requests and motions according to the *Houser* factors. By affirming the military judge's decision to qualify as an expert a veteran jeweler with little Cartier watch experience, *Billings* also highlights the generous approach of MRE 702 concerning expert witness qualification—an expert can be qualified on the basis of knowledge, skill, experience, training, or education. So long as the expert can help the panel members make a better, more informed decision than they would make in the absence of the expert, the qualification standards of MRE 702 will be met. Finally, *Billings* emphasizes two critical components of a reliability determination: the

proponent's responsibility to demonstrate the reliability of the expert's methods using either the *Daubert* factors or alternative indicia of reliability; and the military judge's function as a gatekeeper to keep unreliable expert methodology away from the panel members.

In another expert witness case this term, the CAAF addressed an issue involving false confession experts. The appellant in *United States v. Bresnahan*[ccxci] confessed to shaking his three-month-old son, an act that led to the child's death. He unsuccessfully sought to suppress the confession both at trial and on appeal, claiming that the interrogation tactics employed by law enforcement personnel rendered his confession involuntary.[ccxcii] He also requested the services of an expert assistant, Dr. Richard Leo, to help the defense evaluate a possible false confession defense.[ccxciii] According the defense, Dr. Leo would assist in evaluating the vulnerability of the appellant's confession and the interrogation techniques used by investigators.[ccxciv] Using enigmatic and circular language, the military judge denied the defense request, stating, "defense counsel is searching for evidence that would assist in her defense of the accused, but with little evidence to indicate such evidence exists."[ccxcv] The defense did not present a false confession defense at trial.[ccxcvi]

On appeal, the CAAF addressed whether the military judge abused his discretion in denying the defense's request for a false confession expert consultant. The majority recognized that an accused is entitled to expert assistance on trial, but only on a showing of necessity.[ccxcvii] Citing past case law, the majority stated that necessity requires more than the mere possibility of assistance from a requested expert, but rather a showing of a reasonable probability that an expert would be of assistance to the defense and that denial of the expert would result in a fundamentally unfair trial.[ccxcviii] The majority also referred to the three-prong *Gonzalez* test for evaluating expert assistance requests, which requires counsel to show the following: (1) why the expert assistance is needed, (2) what the expert assistance would accomplish for the accused; and (3) why the defense counsel is unable to gather and present the evidence themselves.[ccxcix]

The majority found that the primary failure of the defense case was in meeting prong one of the *Gonzalez* test— necessity.[ccc] The majority conceded that the confession was important evidence in the trial and that Dr. Leo would have benefited the defense in its case preparation.[ccci] However, adopting the findings of the military judge, the majority held that the defense never established the necessity for expert assistance, because the defense counsel failed to present any evidence of abnormal mental condition, submissive personality, or anything else suggesting that the confession was actually false.[cccii] Without that evidence, it was not an abuse of discretion for the military judge to deny the request, although the court noted that it would likewise not have been an abuse of discretion to grant the request.[ccciii]

Judges Erdmann and Effron dissented on the denial of the false confession expert consultant.[ccciv] Arguing that the majority opinion now makes it more difficult for defense counsel to request expert consultants to evaluate their cases, the dissent would have found that the appellant met the requirements of *Gonzalez* to justify expert assistance: the defense established why the assistance was needed, what expert assistance would accomplish to help the appellant, and why defense counsel was unable to gather and present the evidence herself.[cccv] According to the dissent, the circular reasoning of the majority opinion establishes a new standard whereby the defense must first demonstrate that a defense actually exists before obtaining expert assistance in order to evaluate whether the defense is available.[cccvi]

Bresnahan presents an interesting wrinkle to the dilemmas counsel face when trying to obtain expert consultants at trial. The opinion appears to enhance the requirements for proving necessity, at least for novel defenses such as false confession. In all cases involving expert consultant requests, counsel must thoroughly educate themselves on the issues. The defense counsel in *Bresnahan* apparently understood the issues, but did not develop a threshold set of facts sufficient to convince a military judge the expert could be of assistance in this particular case. If the dissent's characterization of *Bresnahan is*

correct—and not simply limited to the somewhat difficult area of false confessions—the enhanced factual predicates required to demonstrate necessity for an expert consultant will require defense counsel to jump through yet another hoop when requesting expert assistance. Military Rule of Evidence 104 could potentially be of great utility to counsel and military judges in resolving these issues. The rule permits military judges to determine preliminary questions concerning witness qualifications, existence of privileges, or the admissibility of evidence.[cccvii] The key to MRE 104 is its flexibility: the court is not bound by the rules of evidence in making these preliminary determinations.[cccviii] Accordingly, defense counsel should consider the use of affidavits, hearsay, telephonic communication, and other methods of getting information to a military judge to establish the factual predicates now required in evaluating requests for expert consultants to help evaluate the existence of a defense.

The CAAF's final expert case of the 2005 term is *United States v. Hays,*[cccix] in which the court examined the permissible scope of an expert's opinion on the ultimate issue in the case. During appellant's trial for solicitation of the offense of carnal knowledge, the government introduced an e-mail written by the appellant to someone known as J.D. In the e-mail, the appellant asked J.D. if he had yet engaged in sexual intercourse with "your 9yo" and requested pictures if J.D. had. The appellant also discussed his plans to adopt a little girl, sexually abuse her, photograph the abuse, and send pictures to J.D.[cccx]

The government called an FBI expert to testify on the behavioral aspects of individuals who victimize children. The expert testified that the e-mail was an attempt by the appellant to entice J.D. to abuse a child and photograph the acts, with a promise that the appellant would return the favor at a future date.[cccxi] Defense counsel objected that this testimony was impermissible ultimate opinion testimony, but the military judge overruled the objection.[cccxii] On appeal, the CAAF held that the military judge did not abuse her discretion in permitting the expert to testify about the meaning of appellant's e-mail. Although the expert's testimony used words associated with the concept of solicitation, he did not testify that there was a solicitation as a matter of law. The testimony was within his area of expertise.[cccxiii] The majority also found it significant that the trial occurred before a military judge alone, who would be presumed to properly use and consider expert testimony.[cccxiv] Judge Erdmann dissented, arguing that the expert's opinion did in fact go to the ultimate issue of the case—why the appellant sent the e-mail to J.D.[cccxv]

Hays is perhaps limited in its significance as an evidence case. A military judge could easily grasp the distinction between the factual solicitation and solicitation as a matter of law. The issue might well have been different had the case been tried before a panel of members. Perhaps *Hays'* greatest value to practitioners is its illustration of the outer limits of permissible expert testimony on ultimate issues. In this case, the expert went to the very edge of the line but did not quite cross over. Counsel should always know just where the line of permissible testimony is, and government counsel in particular should ensure their witnesses don't come close to crossing it.

Hearsay

The 2005 term of court was relatively quiet in terms of hearsay. The CAAF clarified the requirements for adoptive admissions in *United States v. Datz,*[cccxvi] decided a case under the public records exception of MRE 803(8) in *United States v. Taylor,*[cccxvii] and addressed statements against penal interest in *United States v. Rhodes.*[cccxviii]

Military Rule of Evidence 803(8): Public Records

The public records exception to the hearsay rule, MRE 803(8),[cccxix] rarely finds its way into the opinions of military appellate courts. But this year, the CAAF decided a case based on the rule in *United States v. Taylor.*[cccxx] At the appellant's trial for desertion, the government introduced two exhibits into evidence to help prove absence from and return to duty. The first exhibit

(PE2) was a copy of a declaration of desertion message that also contained additional, undecipherable content at the bottom of the document. It was admitted at trial as a personnel accountability document under MRE 803(8) over defense objection on grounds of relevance, hearsay, improper foundation, and authentication. The exhibit was not authenticated, and the foundation witness had not compared it to the original.[cccxxi] The second exhibit (PE3) was an e-mail known as a declaration of return from desertion message. The e-mail was prepared based on information obtained from a deserter warrant (DD 553) and movement orders. Defense counsel objected to the document on the grounds that it was "hearsay within hearsay," but the military judge admitted it under MRE 803(8).[cccxxii]

The CAAF granted review on whether the admission of the two documents violated the appellant's confrontation rights under the 2004 Supreme Court case *United States v. Crawford,*[cccxxiii] and also specified review on two additional issues, including whether, apart from *Crawford,* the military judge abused his discretion in admitting the documents.[cccxxiv] The court never reached the confrontation clause issue, instead holding that the military judge erred in admitting the documents because they did not satisfy the public records exception to the hearsay rule.

In reaching its holding, the CAAF examined the admissibility determinations of each of the documents in turn. Because of the undecipherable content at the bottom of the message, PE2 (the declaration of desertion message) did not qualify as a personnel accountability document within the meaning of MRE 803(8).[cccxxv] Nor was it admissible as "matters observed pursuant by duty imposed by law as to which there was a duty to report," because the government could not explain the undecipherable content at the bottom of the message.[cccxxvi] Finally, PE2 was not an admissible copy under MRE 1005 because it was not authenticated, had not been compared to an original by the foundation witness, and there was no demonstration that the government had exercised reasonable diligence in finding an attested or compared copy.[cccxxvii]

In order for PE3 (declaration of return message) to be admissible, the underlying documents that were used to create it would also have been required to be admissible under a hearsay exception.[cccxxviii] The government provided no information about identity or duties of the person who had created the DD553 and even less information about the production and preparation of the movement orders.[cccxxix]

Because the case against *Taylor* relied considerably on the two improperly admitted documents to establish the elements of the offense, their admission was prejudicial to the appellant and likely had a substantial effect on the findings.[cccxxx] Accordingly, the CAAF reversed and set aside the findings in this case.[cccxxxi]

Although the penalty for improper foundations in *Taylor* seems harsh, the case sends an important message to the field: evidentiary foundations, particularly in hearsay cases, are not to be lightly dismissed. The source of a document, the reason it is kept, and what is contained on its face are all critical aspects of admissibility. In addition, the foundational purpose of a hearsay exception—what makes it reliable—is also important. Defense counsel and military judges should pay careful attention to the subtext of the CAAF's holding: the court will seek to avoid ruling on constitutional confrontation issues if there are simpler grounds, such as improper foundation or inadmissible hearsay. Defense counsel should not hesitate to attack hearsay evidence on parallel constitutional and foundational grounds.

Military Rule of Evidence 804: Statements Against Interest

Statements against penal interest can be admissible if the declarant is unavailable and the statement "so far tend[s] to subject the declarant to . . . criminal liability . . . that a reasonable person in the position of the declarant would not have made the statement unless the person believed it to be true."[cccxxxii] *United States v. Rhodes*[cccxxxiii] presents the interesting issue of a statement against interest that implicates not only the declarant, but also another person—in this

case, the appellant. During the appellant's trial for possession and use of psilocin, a government witness, SrA Daugherty, claimed memory loss concerning the five-page handwritten confession he made that implicated him and the appellant in the misconduct.[cccxxxiv] Daugherty persisted in his claim of memory loss, so the military judge declared him unavailable for the purposes of MRE 804(b)(3) and permitted the government to introduce the statement against the appellant, albeit with strict conditions on its use.[cccxxxv]

The CAAF held that the military judge did not abuse his discretion in admitting the statement. Daugherty was available for confrontation purposes because he was present at trial and subject to cross-examination.[cccxxxvi] He was unavailable, however, within the meaning of MRE 804 because he persisted in a claim of memory loss.[cccxxxvii] The key to declarations against penal interest is their inculpatory nature. The mere fact that others are implicated in a statement against penal interest does not change its essential inculpatory nature.[cccxxxviii]

Conclusion

In a wide variety of cases, the military appellate courts decided evidentiary issues that will make a difference in the courtroom. Whether counsel are emboldened by *Brewer* to try novel evidentiary arguments based on the due process clause, constrained by *Berry* from introducing instances of uncharged adolescent sexual misconduct, or inspired by *Taylor* to pay attention to hearsay rules and evidentiary foundations, it is no stretch to paraphrase the inimitable Yogi Berra:[cccxxxix] after the 2005 term of court, the evidentiary future in military courtrooms just ain't what it used to be.

Endnotes

[i] Yogi Berra, Yogi-isms, http://www.yogiberra.com/yogi-isms.html (last visited Apr. 6, 2006).

[ii] MANUAL FOR COURTS-MARTIAL, UNITED STATES, MIL. R. EV*ID.* 401 (2005) [hereinafter MCM].

[iii] *Id.* MIL. R. EV*ID.* 402.

[iv] *Id.* MIL. R. EV*ID.* 403.

[v] Military Rule of Evidence 401 defines relevant evidence as "having any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence." *Id.* MIL. R. EV*ID.* 401.

[vi] According to MRE 402, evidence that is logically relevant is admissible at trial unless "otherwise provided by the Constitution of the United States as applied to members of the armed forces, the code, these rules, this Manual, or any Act of Congress applicable to members of the armed forces." *Id.* MIL. R. EV*ID.* 402.

[viivii] According to MRE 403, relevant evidence may be excluded "if its probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the members, or by considerations of undue delay, waste of time, or needless presentation of cumulative evidence." *Id.* MIL. R. EV*ID.* 403.

[viii] For example, in United States v. Berry, 61 M.J. 91 (2005), a majority of the CAAF found the appellant's uncharged acts of sexual misconduct logically relevant under MREs 401 and 402 but not legally relevant for the purposes of MRE 403 and 413. *See infra* notes 189-218 and accompanying text. A concurring opinion argued, however, that the evidence could not be logically relevant unless it was also legally relevant. *Berry,* 61 M.J. at 98-99 (Crawford, J., concurring).

[ix] *Compare* United States v. Rhodes, 61 M.J. 445 (2005) (holding that evidence a key government witness suddenly forgot his testimony shortly after meeting with appellant and his attorney was more prejudicial than probative when admitted as uncharged misconduct evidence to show appellant's consciousness of guilt), *with* United States v. Hays, 62 M.J. 158 (2005) (affirming the admission of numerous pornographic pictures and e-mails against the appellant in a solicitation case and asserting that the evidence, while highly prejudicial, was extremely probative on the issue of intent to solicit another person to have sex with a child in order to create pornographic images of it).

[x] In *United States v. Brewer,* 61 M.J. 425 (2005), the majority held (and a blistering dissent excoriated them for so holding) that logical relevance and the Due Process Clause of the Fifth Amendment trumped the plain language of MREs 404 and 405 in drug cases involving the permissive inference of wrongful use.

[xi] MCM, *supra* note 2, MIL. R. EV*ID.* 103.

[xii] *Id.* MIL. R. EV*ID.* 304(g).

[xiii] *Id.* MIL. R. EV*ID.* 401.

[xiv] *Id.* MIL. R. EV*ID.* 403.

[xv] *Id.* MIL. R. EV*ID.* 404(b).

[xvi] *Id.* MIL. R. EV*ID.* 413.

[xvii] *Id.* MIL. R. EV*ID.* 504.

[xviii] *Id.* MIL. R. EV*ID.* 613.

[xix] *Id.* MIL. R. EV*ID.* 702.

[xx] *Id.* MIL. R. EV*ID.* 704.

[xxi] *Id.* MIL. R. EV*ID.* 801(d)(2)(B).

[xxii] *Id.* MIL. R. EV*ID.* 803(8).

[xxiii] *Id.* MIL. R. EV*ID.* 804.

[xxiv] *Id.* MIL. R. EV*ID.* 103.

[xxv] *See id.*

[xxvi] 61 M.J. 37 (2005).

[xxvii] *Id.* at 39.

[xxviii] *Id.*

[xxix] *Id.*

[xxx] *Id.* at 40.

[xxxi] *Id.* at 40-41.

[xxxii] *See id.* at 39-40 (quoting the record of trial concerning SA Van Arsdale's testimony about what he "would have asked" the appellant in several critical factual issues in the case).

[xxxiii] *Id.* at 39.

[xxxiv] *See id.* at 41 (discussing appellant's arguments on appeal that the questions were ambiguous).

[xxxv] *See id.* at 40-41.

[xxxvi] See MCM, supra note 2, MIL. R. EV*ID.* 801(d).

[xxxvii] Datz, 61 M.J. at 40-41.

[xxxviii] *Id.* at 41.

[xxxix] *See id.* at 42-43.

[xl] See MCM, supra note 2, MIL. R. EV*ID.* 103.

[xli] Datz, 61 M.J. at 42.

[xlii] *Id.*

[xliii] *Id.*

[xliv] *Id.*

[xlv] *See id.* (citing cases from five circuit courts of appeal and the Army and Navy courts of military review)

[xlvi] *Id.*

[xlvii] *Id.*

[xlviii] *Id.*

[xlix] *Id.*

[l] *See id.*

[li] *Id.*

[lii] 58 M.J. 314 (2003). *Kaspers* featured a confession that consisted of the appellant holding up one finger in response to an Office of Special Investigations agent's question about whether the appellant had gone to Florida and used ecstasy on one occasion. At trial, the parties differed on the meaning of the gesture: the government said it amounted to a confession, and the appellant said it simply meant she had been to Florida once. *See id.* at 316. Clearly, gesture confessions are much more open to interpretation than a solid confession that has been reduced to writing and signed by the accused.

[liii] *See* MCM, *supra* note 2, MIL. R. EV*ID.* 304(g). According to rule 304(g), "An admission or a confession of the accused may be considered as evidence against the accused on the question of guilt or innocence only if independent evidence, either direct or circumstantial, has been introduced that corroborates the essential facts admitted to justify sufficiently an inference of their truth." *Id.*

[liv] For a superb commentary on the CAAF's struggles with the corroboration rule, see Major Lance Miller, *Wrestling with MRE 304(g): The Struggle to Apply the Corroboration Rule,* 178 MIL. L. REV. 1 (2003).

[lv] 61 M.J. 254 (2005).

[lvi] *Id.*

[lvii] *Id.* at 255.

[lviii] *Id.*

[lix] *Id.*

[lx] *Id.*

[lxi] *Id.*

[lxii] *Id.*

[lxiii] *Id.*

[lxiv] *See id.* at 256.

[lxv] *Id.* at 255.

[lxvi] *Id.* at 256.

[lxvii] *Id.*

[lxviii] *Id.*

[lxix] *Id.*

[lxx] *See id.*

[lxxi] *Id.*

[lxxii] *Id.*

[lxxiii] *Id.* at 257.

[lxxiv] *Id.*

[lxxv] *Id.*

[lxxvi] *Id.*

[lxxvii] *See, e.g., U.S.* DEPT OF ARMY, REG. 27-26, RULES OF PROFESSIONAL CONDUCT FOR LAWYERS para. 3-7 (1 May 1992).

[lxxviii] In an unrelated case, a government lawyer recently created a veritable firestorm of controversy by engaging in similar pretrial preparation practices. Among other things, she showed government witnesses trial transcripts, prepared witnesses in groups, and gave specific e-mail instructions to witnesses on what to say and to whom they should speak. *See Feds Probe Lawyer's Conduct in 9/11 Trial: TSA Lawyer Allegedly Coached Witnesses in Moussaoui Case,* CNN.COM, Mar. 30, 2006, http://www.cnn.com/2006/LAW/03/30/carla.martin.ap/.

[lxxix] As the CAAF recently stated, "[A] voluntary confession of guilt is among the most effectual proofs in the law, and constitutes the strongest evidence against the party making it that can be given of the facts stated in such confession." United States v. Ellis, 57 M.J. 375, 381 (2005) (quoting Hopt v. Utah, 110 U.S. 574 (1884)).

[lxxx] 60 M.J. 950 (N-M. Ct. Crim. App. 2005).

[lxxxi] *Id.* at 953-54. The abuse included beatings severe enough to leave him badly bruised and, on one occasion, caused him to urinate blood. *Id.* at 954.

[lxxxii] *Id.*

[lxxxiii] *Id.*

[lxxxiv] *Id.*

[lxxxv] *Id.*

[lxxxvi] *Id.*at 955.

[lxxxvii] *Id.*

[lxxxviii] *Id.* The effect of this ruling was to permit the appellant to introduce the issue on appeal; normally, his plea of guilty would have waived any affirmative defense of duress. *Id.*

[lxxxix] *Id.* at 956.

[xc] *See id.* at 955-56 (discussing the affirmative defense of duress, the military judge's erroneous ruling that desertion is a continuing offense, and the ruling's effect on the appellant's ability to raise a defense).

[xci] *Id.* at 955.

[xcii] *Id.*

[xciii] *Id.* at 955-56.

[xciv] *Id.* at 959.

xcv See MCM, supra note 2, MIL. R. EV*ID.* 401 (defining logical relevance); *id.* MIL. R. EV*ID.* 402 (stating that relevant evidence is admissible unless otherwise prohibited by the Rules); *id.* MIL. R. EV*ID.* 403 (establishing the "legal relevance" balancing test that weighs probative value against prejudicial effect of the evidence).

[xcvi] 62 M.J. 31 (2005).

[xcvii] *Id.* at 33.

[xcviii] *Id* at 36. The appellant claimed that his friend, a fellow named B.J., had asked him to deliver the box to a person named Junior, who lived in the appellant's home town. Unfortunately for the appellant, he did not know the last names of B.J. or Junior, had no way to contact them, and had not heard from them since his arrest. *Id.*

[xcix] *Id.* at 33-34.

[c] *Id.* at 35.

[ci] *Id.* at 34.

[cii] Rules 401 and 402 define logical relevance and stand for the proposition that logically relevant evidence is admissible at trial unless otherwise prohibited by the Rules or other legal considerations. *See* MCM, *supra* note 2, MIL. R. EV*ID.* 401, 402. Military Rule of Evidence 403 establishes the principle of legal relevance with its test that balances probative value and prejudice to the fact-finding process. *See id.* MIL. R. EV*ID.* 403.

[ciii] See generally Johnson, 62 M.J. 31.

[civ] *Id.* at 34-35.

[cv] *Id.* at 35.

[cvi] *Id.* at 36.

[cvii] *Id.* at 35.

[cviii] *Id.*

[cix] 61 M.J. 425 (2005).
[cx] United States v. Brewer, 2004 CCA LEXIS 136 (A.F. Ct. Crim. App. 2004). 111 *Brewer,* 61 M.J. at 427.

[cxi]

[cxii] *Id.*

[cxiii] *Id.*

[cxiv] *Id.*

[cxv] *See id.* The alibi defense, called the "mosaic alibi" defense by the lower court, see Brewer, 2004 CCA LEXIS 136, at *13-14, consisted of testimony from five individuals who would have claimed they had not seen any signs of drug use from the appellant during the charged timeframe. *Id.* The innocent ingestion defense involved testimony from a friend of the appellant's nephew, who would have testified that despite house rules, he and the nephew regularly smoked marijuana in the appellant's home and had once cooked a pot of marijuana-laced spaghetti that they had left on the stove. *Id.*

[cxvi] *Brewer,* 61 M.J. at 427. These witnesses included friends, coworkers, and the appellant's live-in girlfriend. *Id.*

[cxvii] *Id.*

[cxviii] *Id.*

[cxix] *Id.*

[cxx] *See id.* at 441 (Baker, J., dissenting).

[cxxi] *See id.* at 428.

[cxxii] *Id.* at 429.

[cxxiii] *Id.*

[cxxiv] 124 *Id.* at 428. Under MRE 404(a)(1), a criminal accused is permitted to raise evidence of his character to show action in conformity therewith. *See* MCM, *supra* note 2, MIL. R. EV*ID.* 404(a)(1). Military Rule of Evidence 405 controls the methods of introducing character evidence at trial. Military Rule of Evidence 405(a) limits a criminal accused to using reputation or opinion testimony to prove his character. *Id.* MIL. R. EV*ID.* 405(a).

[cxxv] *Brewer,* 61 M.J. at 428.

[cxxvi] *See id.* at 428-29.

[cxxvii] *Id.* at 429.

[cxxviii] *Id.* at 429-30.

[cxxix] *Id.* at 430.

[cxxx] *Id.* at 433 (Crawford, J., dissenting).

[cxxxi] *See id.* at 433-34.

[cxxxii] *See id.* at 440 (Baker, J., dissenting).

[cxxxiii] *Id.* at 442.

[cxxxiv] *See, e.g.,* United States v. Green, 55 M.J. 76 (2001); United States v. Campbell, 52 M.J. 386 (2000). 135 MCM, *supra* note 2, MIL. R. EV*ID.* 404(b).

[cxxxv] MCM, supra note 2, MIL. R. EV*ID.* 404(b).

[cxxxvi] *See* United States v. Reynolds, 29 M.J. 105, 109 (C.M.A. 1989).

[cxxxvii] For a discussion on recent cases involving the application of the *Reynolds* test to uncharged misconduct, see Major Christopher W. Behan, *New Developments in Evidence for the 2004 Term of Court,* ARMY LAW., Apr. 2005, at 8-9 and *New Developments in Evidence 2003,* ARMY LAW., May 2004, at 11-16.

[cxxxviii] 61 M.J. 445 (2005).

[cxxxix] *Id.* at 446.

[cxl] *Id.* at 447.

[cxli] *Id.* at 447-48. For a more thorough discussion of the statement against interest, *see infra* notes 333-38 and accompanying text.

[cxlii] *Id.* at 447.

[cxliii] *Id.*

[cxliv] *Id.* at 448.

[cxlv] *Id.*

[cxlvi] *Id.*

[cxlvii] *Id*. at 448-49.

[cxlviii] *Id.*

[cxlix] *Id.* at 449.

[cl] *Id.* at 446.

[cli] *Id.* at 452.

[clii] 344 F.2d 281, 284 (2d. Cir. 1965).

[cliii] *Rhodes,* 61 M.J. at 452.

[cliv] *Id.*

[clv] *See id.*

[clvi] *Id.* at 452-53.

[clvii] *Id.*

[clviii] *Id.*

[clix] *Id.*

[clx] *See id.* at 453-58 (Crawford, J., dissenting).
[clxi] *Id.* at 455-56.

[clxii] *See id.* at 458-59 (Erdmann, J., dissenting).

[clxiii] *Id.* at 458.

[clxiv] *Id.* at 458-59.

[clxv] *Id.* at 452.

[clxvi] 62 M.J. 137 (2005).

[clxvii] *Id.* at 138.

[clxviii] *Id.* at 145-46.

[clxix] *Id.* at 138.

[clxx] *Id.* at 144.

[clxxi] *Id.*

[clxxii] *Id.*

[clxxiii] *Id.* at 145.

[clxxiv] *Id.*

[clxxv] *Id.* at 145-46.

[clxxvi] See United States v. Diaz, 59 M.J. 79 (2003).

[clxxvii] 62 M.J. 158 (2005).

[clxxviii] *Id.*

[clxxix] *Id.* at 161-62.

[clxxx] *Id.* at 164.

[clxxxi] *Id.*

[clxxxii] *See id.*

[clxxxiii] *Id.* at 164-65.

[clxxxiv] *Id.* at 165.

[clxxxv] *Id.*

[clxxxvi] *Id.* at 170-71.

[clxxxvii] 61 M.J. 91 (2005).

[clxxxviii] 60 M.J. 870 (A.F. Ct. Crim. App. 2005), review granted 2005 CAAF LEXIS 954 (2005).

[clxxxix] Berry, 61 M.J. at 93.

[cxc] The "he said/he said" characterization is the CAAF's own description of the case. *See id.* at 98.

[cxci] *Id.* at 93.

[cxcii] *Id.*

[cxciii] *See id.* at 93-94.

[cxciv] See United States v. Wright, 53 M.J. 476 (2000).

[cxcv] Berry, 61 M.J. at 94.

[cxcvi] *Id.*

[cxcvii] *Id.*

[cxcviii] *Id.* at 95.

[cxcix] *See id.*

[cc] *Id.* As listed by the CAAF in Berry, those facts include: the strength of proof of the prior act, the probative weight of the evidence, the potential to present less prejudicial evidence, the possible distraction of the fact-finder, the time needed to prove the prior conduct, the temporal proximity of the prior event, the frequency of the acts, the presence of any intervening circumstances, and the relationship between the parties. *Id.*

[cci] *See id.* at 96.

[ccii] *Id.*

[cciii] *Id.*

[cciv] The judge found that the proof of the prior act was strong, its proof would not take an excessive amount of time at trial, and the victim of the uncharged act, like the victim in Berry, was in a vulnerable position. *Id.* The judge did not address the probative weight of the evidence, the frequency of the acts, the temporal proximity of the prior act, the presence of intervening circumstances, or the distraction of the factfinder. *Id.*

[ccv] *Id.* at 96-97.

[ccvi] *Id.*

[ccvii] 59 M.J. 426 (2004).

[ccviii] Berry, 61 M.J. at 96-97.

[ccix] *Id.* at 97.

[ccx] *See id.*

[ccxi] *Id.*

[ccxii] *Id.*

[ccxiii] *Id.*

[ccxiv] *Id.* at 98.

[ccxv] at 98-102 (Crawford, J., concurring).

[ccxvi] at 98-99.

[ccxvii] See MCM, supra note 2, MIL R. EV*ID.* 401; *id.* MIL R. EV*ID.* 402; *id.* MIL R. EV*ID.* 403; see also supra notes 5-7 and accompanying text.

[ccxviii] Berry, 61 M.J. at 100.

[ccxix] For a though-provoking discussion of this, see David Crump, *On the Uses of Irrelevant Evidence*, 34 HOUS. LAW REV. 1 (1997) (suggesting that a pure approach to MRE 401 renders almost anything logically relevant under MRE 401).

[ccxx] 60 M.J. 870 (A.F. Ct. Crim. App. 2005), review granted 2005 CAAF LEXIS 954 (2005). The CAAF granted review on the following issue:

Whether the military judge erred when he admitted evidence that appellant engaged in sexual acts with another female under the age of 16 where (a) the alleged acts occurred subsequent to the charged acts, and (b) the evidence admitted was of such an unfairly prejudicial nature as to contribute to the members arriving at a verdict on an improper basis.

United States v. James, 2005 CAAF LEXIS 954 (2005).

[ccxxi] *James,* 60 M.J. at 871.

[ccxxii] *Id.*

[ccxxiii] *Id.*

[ccxxiv] *Id.* at 870.

[ccxxv] *Id.* at 871.

[ccxxvi] *Id.* at 872.

[ccxxvii] *Id.*

[ccxxviii] *Id.*

[ccxxix] *Id.* at 873.

[ccxxx] *Id.*

[ccxxxi] *Id.*

[ccxxxii] FED. R. EV*ID.* 501.

[ccxxxiii] See generally MCM, supra note 2, MIL. R. EV*ID.* 502 (Lawyer-client privilege) 503 (Communications to clergy), 504 (Husband-wife privilege), 505 (Classified information), 506 (Government information other than classified information), 507 (Identity of informant), 508 (Political vote), 509 (Deliberations of courts and juries), 513 (Psychotherapist-patient privilege).

[ccxxxiv] *Id.* MIL. R. EV*ID.* 501.

[ccxxxv] *Id.*

[ccxxxvi] See, e.g., United States v. Rodriguez, 54 M.J. 156 (2000) (declining to adopt the psychotherapist-patient privilege of Jaffee v. Redmond, 518 U.S. 1 (1996)).

[ccxxxvii] See, e.g., United States v. Napoleon, 46 M.J. 279 (1997) (declining to extend the clergyman privilege to include an NCO who was a lay minister in his off-duty time).

[ccxxxviii] See, e.g., United States v. McCollum, 58 M.J. 323 (2003) (rejecting the "de facto child" exception to the marital communications privilege).

[ccxxxix] MCM, supra note 2, MIL. R. EV*ID.* 501 app., at A22-37.

[ccxl] *Id.* MIL. R. EV*ID.* 504.

[ccxli] *Id.*

[ccxlii] *See id.* MIL. R. EV*ID.* 504(c)(2).

[ccxliii] STEPHEN A. SALTZBURG, MICHAEL M. MARTIN, AND DANIEL J. CAPRA, 2 FEDERAL RULES OF EVIDENCE MANUAL § 501.02[8], at 501-82 (8th ed. 2003).

[ccxliv] CHRISTOPHER B. MUELLER & LAIRD KIRKPATRICK, EVIDENCE (3d. ed. 2003).

[ccxlv] SALTZBURG, supra note 243, at 501-82.

[ccxlvi] 61 M.J. 530 (Army Ct. Crim. App. 2005).

[ccxlvii] *Id.* at 531.

[ccxlviii] *Id.* at 531-32.

[ccxlix] *Id.* at 532.

[ccl] *Id.* at 534.

[ccli] 19 M.J. 917 (A.C.M.R. 1985).

[cclii] 40 M.J. 505 (A.C.M.R. 1994).

[ccliii] *Id.* at 506; see Davis, 61 M.J. at 535.

[ccliv] *Id.*

[cclv] 30 M.J. 1022, 1025-27 (A.F.C.M.R. 1990).

[cclvi] See Davis, 61 M.J. at 535.

[cclvii] *Id.* at 536.

[cclviii] *Id.*

[cclix] *Id.*

[cclx] *Id.* (quoting United States v. McConnell, 20 M.J. 577, 583 (N.M.C.M.R. 1985)).

[cclxi] See MCM, supra note 2, MIL. R. EV*ID.* 501.

[cclxii] Davis, 61 M.J. at 536.

[cclxiii] 51 M.J. 401 (1999).

[cclxiv] Davis, 61 M.J. at 537.

[cclxv] *See id.* at 537 n.11.

[cclxvi] MCM, supra note 2, MIL. R. EV*ID.* 702.

[cclxvii] *See id.* MIL. R. EV*ID.* 602.

[cclxviii] *Id.* MIL. R. EV*ID.* 702.

[cclxix] *Id.*

[cclxx] 61 M.J. 163 (2005).

[cclxxi] *Id.* at 165.

[cclxxii] *Id.*

[cclxxiii] *Id.*

[cclxxiv] *Id.* at 165-66.

[cclxxv] 36 M.J. 392 (C.M.A. 1993). Those factors include: (1) the qualifications of the expert; (2) the subject matter of the expert testimony; (3) the basis for the testimony; (4) the legal relevance of the evidence; (5) the reliability of the evidence; and (6) the probative value of the evidence must outweigh other considerations under MRE 403. *Id.*

[cclxxvi] Billings, 61 M.J. at 166.

[cclxxvii] See MCM, supra note 2, MIL. R. EV*ID.* 702.

[cclxxviii] Billings, 61 M.J. at 167.

[cclxxix] *Id.*

[cclxxx] *Id.* (quoting Houser, 36 M.J. at 398).

[cclxxxi] *Id.* at 166-67.

[cclxxxii] 522 U.S. 136 (1997).

[cclxxxiii] Billings, 61 M.J. at 168.

[cclxxxiv] 509 U.S. 579 (1993).

[cclxxxv] 526 U.S. 137 (1999).

[cclxxxvi] Billings, 61 M.J. at 168.

[cclxxxvii] *Id.*

[cclxxxviii] *Id.*

[cclxxxix] *Id.* at 168-69.

[ccxc] *Id.* at 169-70. Those factors included the fact that the watch photographs were already in evidence, the defense was able thoroughly to explore the issue of the jeweler's competence in voir dire and cross-examination, and the government presented a very strong case against the appellant concerning the theft of the watch by members of a gang that she directed and controlled. *Id.*

[ccxci] 62 M.J. 137 (2005). For a more thorough discussion of the facts of Bresnahan, see supra notes 166-173 and accompanying text.

[ccxcii] *Id.* at 140-42.

[ccxciii] *Id.* at 143.

[ccxciv] *Id.* at 142.

[ccxcv] *Id.*

[ccxcvi] *Id.*

[ccxcvii] *Id.*

[ccxcviii] *Id.* 143 (citing United States v. Gunkle, 55 M.J. 26, 31 (2005)).

[ccxcix] *Id.* (citing United States v. Gonzalez, 39 M.J. 459, 461 (C.M.A. 1994)).

[ccc] *See id.*

[ccci] *Id.*

[cccii] *Id.*

[ccciii] *Id.*

[ccciv] *Id.* at 147-49 (Erdmann, J., dissenting).

[cccv] *Id.* at 148-49.

[cccvi] *Id.* at 147-48.

[cccvii] MCM, supra note 2, MIL. R. EV*ID.* 401.

[cccviii] *See id.* MIL. R. EV*ID.* 401(a).

[cccix] 62 M.J. 158 (2005). For additional discussion of the facts of this case, see supra notes 177-186 and accompanying text.

[cccx] *Id.* at 161-62.

[cccxi] *Id.* at 165.

[cccxii] *Id.*

[cccxiii] *Id.* at 165-66.

[cccxiv] *Id.* at 165.

[cccxv] *Id.* at 169, 171-72 (Erdmann, J., dissenting).

[cccxvi] 61 M.J. 37 (2005). The adoptive admissions issue has already been discussed in this article at supra notes 26-52 and accompanying text.

[cccxvii] 61 M.J. 157 (2005).

[cccxviii] 61 M.J. 445 (2005).

[cccxix] MCM, supra note 2, MIL. R. EV*ID.* 803(8).

[cccxx] Taylor, 61 M.J. at 157.

[cccxxi] *Id.* at 157-60.

[cccxxii] *Id.* at 160-62.

[cccxxiii] 541 U.S. 36 (2004).

[cccxxiv] Taylor, 61 M.J. at 158.

[cccxxv] *Id.* at 160.

[cccxxvi] *Id.*

[cccxxvii] *Id.*

[cccxxviii] *Id.* at 160-61.

[cccxxix] *Id.* at 161.

[cccxxx] *Id.* at 161-62.

[cccxxxi] *Id.* at 162.

[cccxxxii] MCM, supra note 2, MIL. R. EV*ID.* 804(b)(3).

[cccxxxiii] 61 M.J. 445 (2005).

[cccxxxiv] *Id.* at 446-47. For a more thorough discussion of the facts of this case, see supra notes 138-150 and accompanying text.

[cccxxxv] *Id.* at 447-48. The military judge set five conditions for the statement's use: (1) if the government introduced the statement, it also had to introduce Daugherty's affidavit claiming lack of memory and the possibility that the appellant had not accompanied Daugherty to purchase the mushrooms; (2) the government had to introduce the declaration during Daugherty's testimony; (3) the government could not introduce any statements Daugherty made at his interrogation other than those in the handwritten statement; (4) the defense could question either Daugherty or the OSI agent who took the confession about Daugherty's interrogation; (5) if the defense introduced any part of the confession into evidence, the government could introduce the rest of it.

[cccxxxvi] *Id.* at 449-50.

[cccxxxvii] *Id.* at 450.

[cccxxxviii] *Id.* at 451.

[cccxxxix] See Yogi Berra, Yogi-isms, http://www.yogiberra.com/yogi-isms.html (last visited Apr. 6, 2006).