Mental health officials must not fall prey to “role confusion” (McGrath, 2000; Petherick, 2006, p. 45) and give treatment advice while attempting to derive the characteristics of the offender.

While learning and personality theories may play a role, it is difficult, if not impossible, to determine the degree to which they apply in a given case until a structured clinical assessment with the perpetrator is undertaken by a mental health professional.

Many clinicians have no investigative experience and so there may be a disconnect between the perceived and actual requirements of an investigation (see Ainsworth, 2001; Canter, 1989; Dietz, 1985; West, 2000; Wilson, Lincoln, and Kocsis, 1997).

There is a reliance on indirect methods of assessment, including intuition, psychodynamic theories, and statistical reasoning (Gudjonsson and Copson, 1997).

Without a unified approach, theory, or process, diagnostic evaluations may be hit-and-miss, and any attempts to study the underlying reasoning or logic behind these profiles may be hampered by the inability to reproduce the train of thought that led to profile characteristics.

The following chart provides a list of the necessary background knowledge and experience required to perform a diagnostic evaluation.

<table>
<thead>
<tr>
<th>Background</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research</td>
<td>Helpful</td>
</tr>
<tr>
<td>Law enforcement affiliation</td>
<td>Unnecessary</td>
</tr>
<tr>
<td>Psychology</td>
<td>Required</td>
</tr>
<tr>
<td>Investigative</td>
<td>Unnecessary</td>
</tr>
<tr>
<td>Forensic knowledge</td>
<td>Unnecessary</td>
</tr>
<tr>
<td>Analytical logic</td>
<td>Unnecessary</td>
</tr>
</tbody>
</table>

**Investigative Psychology**

The main advocate of investigative psychology (IP) is David Canter, a British psychologist who promotes a scientific-research-based approach to the study of offender behavior. Investigative psychology is an inductive approach and is dependent on the amount of data collected (McGrath, 2000). Although sample size is a problem for some inductive methods, Canter is constantly carrying out research to improve the samples on which conclusions are based, and rigorous social scientific methods to expand knowledge are employed (Egger, 1998; Petherick, 2003). As a result, the conclusions are still inductive but based on more empirically robust evaluations.
As with the FBI approach, investigative psychology identifies profiling as only one part of an overall methodology. This is explained in Canter (2000, p. 1091):

The domain of investigative psychology covers all aspects of psychology that are relevant to the conduct of criminal and civil investigations. Its focus is on the ways in which criminal activities may be examined and understood in order for the detection of crime to be effective and legal proceedings to be appropriate. As such, investigative psychology is concerned with psychological input to the full range of issues that relate to the management, investigation and prosecution of crime.

It is further explained in Canter (2004, p. 7):

The broadening and deepening of the contributions that psychology can make to police investigations, beyond serial killers and personality profiles, to include the effective utilisation of police information, through interviews and from police records, as well the study of police investigations and decision support systems has lead to the identification of a previously unnamed domain of applied psychology... called...Investigative Psychology.

According to the program’s Web site, investigative psychology provides the following:

[A] scientific and systematic basis to previously subjective approaches to all aspects of the detection, investigation and prosecution of crimes. This behavioral science contribution can be thought of as operating at different stages of any investigation, from that of the crime itself, through the gathering of information and on to the actions of police officers working to identify the criminal then on to the preparation of a case for court.

Canter (1998, p. 11) has also gone to great pains to differentiate IP from “everyday” profiling:

So should psychologists be kept out of the investigation of crimes? Clearly as the Director of the Institute of Investigative Psychology I do think that psychologists have much to offer to criminal and other investigations. My central point is to make a distinction between “profiling” and Investigative Psychology.

Further, to distinguish between IP and those idiosyncratic profiling approaches, the following is noted (Canter, 1998, p. 11):

Investigative psychology is a much more prosaic activity. It consists of the painstaking examination of patterns of criminal behavior and the
testing out those patterns of trends that may be of value to police investigators.... Investigative psychologists also accept that there are areas of criminal behavior that may be fundamentally enigmatic.

This method, commonly referred to as the five-factor model, has five main components that reflect an offender’s past and present. These are interpersonal coherence, significance of time and place, criminal characteristics, criminal career, and forensic awareness. These components will be addressed in turn.

Interpersonal coherence refers to the way people adopt a style of interaction when dealing with others, where crime is an interpersonal transaction involving characteristic ways of dealing with other people (Canter, 1995). Canter believes that offenders treat their victims in a similar way to that in which they treat people in their daily lives; that is, criminals carry out actions that are a direct extension of the transactions they have with other people (Wilson and Soothill, 1996). For example, a rapist who exhibits selfishness with friends, family, and colleagues in daily life will also exhibit selfishness with victims. Similarly, an offender may select victims who possess characteristics of people important to him or her (Muller, 2000). This belief is not unique to IP, and most profiling approaches rely on the notion of interpersonal coherence in developing offender characteristics (Petherick, 2003).

As “interpersonal processes gain much of their psychological nuance from the time and place in which they occur” (Canter, 1989, p. 14), time and space considerations should also be reflective of some aspects of the offender. That is, the time and place may be specifically chosen by the offender and so provide further insight into his or her actions in the form of mental maps. The implication is that “an offender will feel more comfortable and in control in areas which he knows well” (Ainsworth, 2001, p. 199). Two considerations are important: the first being the specific location, and the second being the general spatial behavior which is a function of specific crime sites (Canter, 1989). Canter (2003) dedicated a whole work to these aspects that are largely based on the foundational theory of environmental criminology.

Next, criminal characteristics provide investigators with some idea about the type of crime they are dealing with. The idea is to determine “whether the nature of the crime and the way it is committed can lead to some classifications of what is characteristic...based upon interviews with criminals and empirical studies” (Canter, 1989, p. 14). This is an inductive component of the approach and, as it stands, is similar to attempts made by the FBI in applying an organized/disorganized typology.

Studying a criminal career provides an understanding of the way offenders may modify behavior in light of experience (Nowikowski, 1995). There is room
for adaptation and change, with many criminals responding to victim, police, or location dynamics owing to learning and experience. This adaptation and change may be reflective of past experiences while offending. For example, a criminal may bind and gag a current victim, based on the screams and resistance of a past victim (Canter, 1989). This may reflect the evolution of MO displayed by many offenders who learn through subsequent offenses and continue to refine their behavior. Additionally, the nature and types of precautionary behaviors may provide some insight into whether the offender has experience with or exposure to investigative practices.

Finally, forensic awareness may show an increase in learning based on past experience with the criminal justice system. Perpetrators may be sophisticated in that they will use techniques that hinder police investigations, such as wearing a mask or gloves or through attempts to destroy other evidence (Ainsworth, 2000). A rapist may also turn to using condoms to prevent the transfer of biological fluids for DNA analysis.

Further, five characteristics utilized in the IP method may be instructive to investigators. They are self-explanatory and include residential location, criminal biography, domestic/social characteristics, personal characteristics, and occupation/education history (Ainsworth, 2000). While there is not necessarily any greater weighting placed on any of these profile features, Boon and Davies (2003) suggest that research from the United Kingdom identifies residential location and criminal history as the most beneficial, whereas domestic, social, occupational, and educational characteristics are of least value (again highlighting the emphasis IP places on crime geography).

The following criticisms could be made of investigative psychology:

- The rigorous reconstruction of offender behavior is not undertaken, so the meaning of behavior may be questionable.
- The generalization of past cases to the current case is dangerous and potentially misleading.
- Offender characteristics are only a possibility, and nothing concrete or specific about the current case is offered.
- IP assumes that the research on a particular crime type is valid to the crime type (general research on murder versus specific research on domestic homicide) and to the crime under consideration (that the probabilities within the research apply to the extant case).

The following chart provides the background requirements necessary for those practicing investigative psychology.
DEDUCTION: THE SUGGESTED APPROACH

In profiling terms, Behavioral Evidence Analysis (BEA) is the most recent of the individual profiling methods. The method was developed by Brent Turvey in the late 1990s. It is based on forensic science and the collection and interpretation of physical evidence, and by extension what this means about an offender. BEA is primarily a deductive method and, as a result, will not make a conclusion about an offender unless specific physical evidence exists that suggests the characteristic. This means that, instead of relying on averaged offender types, BEA profilers conduct a detailed examination of the scene and related behaviors and argue from this what offender characteristics are evidenced in the behavior and scene.

The strength of BEA lies in the fact that the profiler works only with what is known; nothing is assumed or surmised (Petherick, 2003), and a great deal of time is spent determining the veracity of the physical evidence and its relationship to the criminal event. In this way, evidence that is irrelevant or unrelated has little evidentiary value and is not given weight in the final analysis. This assists in maintaining objectivity and leads to a more accurate and useful end product.

Like its inductive counterparts, BEA involves a number of steps, with each building on previous stages to provide an overall picture.

The first stage of BEA is referred to as the forensic analysis and “must be performed on the physical evidence to establish the corresponding behavioral evidence in a case before a BEA profile can be attempted” (Petherick and Turvey, 2008b, p. 135). In this stage all the physical evidence surrounding a case is examined to assess its relevance and determine its overall nature and quality. This step also ensures the probative quality of the evidence should the case end up in court. Ultimately, the forensic analysis informs the profilers what evidence they have to base a profile on, what evidence may be missing, what evidence may have been misinterpreted, and what value that evidence has in the subsequent analyses. Thornton (2006, p. 37) contextualizes the importance of physical evidence:
We are interested in physical evidence because it may tell a story. Physical evidence—properly collected, properly analysed, and properly interpreted—may establish the factual circumstances at the time the crime occurred. In short, the crime may be reconstructed. Our principal interest is ultimately in the reconstruction, not the evidence per se....

Also, along with the ethos is an ethic—a moral obligation to maintain the integrity of the processes by means of which the reconstruction is accomplished. In short, the ethos of crime reconstruction represents an imperative to "get it right." "Getting it right" involves more than guessing correctly. It necessitates a systematic process. It involves the proper recognition of the evidence, the winnowing of the relevant wheat from the irrelevant chaff, and the precise application of logic, both inductive and deductive. The process is not trivial.

Because this stage relates to the examination of physical evidence, profilers who are not familiar with or qualified to interpret physical evidence should not undertake this task. Instead, they should work with trained professionals whom they trust to examine the evidence on which they are basing their conclusions. The importance of establishing a set of given facts from information given during an investigation should be apparent, but this information is all too often assumed as correct without question. Two cases that exemplify the pitfalls of working with information that has been gathered and interpreted by others are the investigation of the explosion aboard the USS Iowa and the homicide of Joel Andrew Shanbrom, for which brief explanations are provided next.

**USS Iowa**

Early one morning in 1989, Turret Two on board the USS Iowa exploded, killing 47 of the ship’s crew (Thompson, 1999). The explosion sent shockwaves throughout the U.S. Navy, with the subsequent investigation revealing dangerous practices, incompetence, cover-ups, and investigative failures, only some of which were related to the explosion and deaths. Given the magnitude of the disaster, the Navy consulted agents from the FBI’s Behavioral Sciences Unit to provide some insight into what they felt were the actions of a suicidal homosexual by the name of Clayton Hartwig stationed on the ship.

In an attempt to provide this insight, the FBI agents used a technique known as Equivocal Death Analysis (EDA) to examine Hartwig. While the EDA was not responsible for first bringing attention to him as the person responsible, it was most certainly responsible for cementing this opinion in the minds of investigators and the naval executive. What followed was a series of events that perpetuated bad judgment and showed just how dangerous it can be to accept at face value information that has not been observed or collected first hand: investigators from
the Naval Investigative Service (NIS) started by assuming Hartwig’s guilt and then provided this information to the FBI profilers, whose assessment fed this line of thinking back to the NIS and the Navy.

With regards to their analysis, a report of the Investigations Subcommittee of the Committee on Armed Services House of Representatives noted two important issues with the FBI’s analysis (pp. 6–7):

- The procedures the FBI used in preparing the EDA were inadequate and unprofessional. As a matter of policy, the analysts do not state the speculative nature of their analyses. Moreover, the parameters that the FBI agents used, either provided to them or chosen by them, biased their results toward only one of three deleterious conclusions. Further biasing their conclusions, the agents relied on insufficient and sometimes suspect evidence. The FBI agents’ EDA was invalidated by 10 of 14 professional psychologists and psychiatrists, heavily criticized even by those professionals who found the Hartwig possibility plausible.

- The FBI’s analysis gave the Navy false confidence in the validity of the FBI’s work. If the Navy had relied solely on the work of the NIS’s own staff psychologist—which emphasized that such psychological autopsies are by definition “speculative”—the Navy would likely not have found itself so committed to the Hartwig thesis.

Despite the questionable nature of the EDA process and its methodology, there were more fundamental concerns about the material on which the analysis was based. The following concerns were also raised by the Investigations Subcommittee about the process and results:

- Richard Ault (working for the FBI) admitted that the Navy had only provided him with fragments of the evidence assembled against Hartwig.

- Ault was asked who wrote the poem “Disposable Heroes,” a key piece of information on which Hartwig’s alleged homosexuality hinged, and he didn’t know.

- Asked whether the agents were aware that another gunner’s mate told Admiral Milligan that another sailor had written the poem, Hazelwood stated that this was immaterial because Hartwig had the potential to see it.

- The agents were asked if they were aware that David Smith had recanted the testimony used in their EDA, and they claimed they weren’t sure what he had recanted.

- The agents had relied entirely on the information provided to them by the NIS and had not done any interviews themselves.
There were further concerns about the veracity of the information on which the profile was based (Investigations Subcommittee and Defense Policy Panel of the Committee on Armed Services, 1990, p. 42):

The preponderance of material came from interviews conducted and provided to the FBI by the NIS. As the subcommittee found earlier, serious questions were raised about the leading nature or bias introduced in the interviews by the NIS interviewing agents. Some witnesses denied making statements to NIS that are significant to the profile...in at least one instance, the witness recanted several portions of his testimony, but was still considered a valuable witness.

Joel Andrew Shanbrom

Another example stressing the importance of not only establishing a set of facts for oneself, but also in assessing evidence dynamics, is the homicide of Joel Andrew Shanbrom, a school district police officer in California. Shanbrom’s wife, Jennifer, claimed that she was upstairs bathing their son when she heard an altercation downstairs between her husband and some [black] men. A profile of the alleged offender was compiled by Mark Safarik of the FBI’s Behavioral Analysis Unit.

Safarik’s assessment gave considerable weight to the apparent ransacking of certain rooms in the house, including that of the son Jacob:

The dressers and night stands in the master bedroom, Gisondi’s room, and Jacob’s bedroom had been disturbed,... In Jacob’s bedroom, a room clearly identified as a child’s bedroom, the dresser drawers were pulled out to give the appearance they were searched. Such a room would not be expected to contain any valuables and this would have been passed over by offender(s) looking for valuables.

While police had trouble with Jennifer Fletcher’s story from the outset, particularly after discovering significant life insurance policies on her husband, the profile remained steadfast to its assessment of someone ransacking the bedroom in an attempt to stage a burglary. It wasn’t until later that an expert profiler, in providing trial assistance to the defense, was able to establish through consideration of evidence dynamics that the scene had in fact been altered by a police officer in her search for clothing for Jacob Shanbrom, who was naked and cold from hiding in a bedroom closet with his mother since the alleged homicide. In a postscript to this case, Jennifer and her new husband, Matthew Fletcher, were both charged with the 1998 murder of Shanbrom after facing counts of fraud and conspiracy (Associated Press, 2002; Blankstein, 2002).

It is also necessary to establish the accuracy and quality of the information which serves as the basis of the profile because of evidence dynamics. This refers
to influences that change, relocate, obscure, or obliterate physical evidence, regardless of the intent of the person or circumstance that bring about the change (Chisum and Turvey, 2008). So, evidence dynamics may be the result of the offender moving from one room to another during an offense, a bleeding but not yet deceased victim crawling down a hallway, paramedics attending the scene of a violent crime, or firefighters attending a fire scene. However, evidence dynamics is important in the case far beyond the extant circumstances of the crime scene, playing a role from the time the evidence is deposited until the final adjudication of the case (Chisum and Turvey, 2000). To provide some context to the way that evidence dynamics may alter the physical presentation of crime scene actions, consider the following example from Chisum and Turvey (2000, p. 9):

A youth was stabbed several times by rival gang members. He ran for a home but collapsed in the walkway. A photo of the scene taken prior to the arrival of the EMT team shows a blood trail and that the victim was lying face down. Subsequent photos show the 5 EMT’s working on the body on his back. He had been rolled over onto the blood pool. It became impossible for bloodstain patterns interpretation to be used to reconstruct the events leading to the death of the youth.

Given these examples, the importance of the forensic analysis and establishing a set of facts for oneself should be clear. Although only three cases have been used as examples, there are numerous others with a similar lack of critical appraisal of the presenting evidence (see also Superior Court of California, 1999). The other aspect of the forensic analysis that is important and factors in evidence dynamics is crime reconstruction, which is “the determination of the actions surrounding the commission of a crime” (Chisum, 2002, p. 81).

Popular conceptions of crime reconstruction abound, with some believing the process involves the physical rebuilding of the crime scene in another location. Saferstein (2004) suggests that “reconstruction supports a likely sequence of events by the observation and evaluation of physical evidence, as well as statements made by witnesses and those involved with the incident.” Rynearson (2002) incorporates “common sense reasoning” and its use with forensic science to interpret evidence as it resides at the crime scene. Cooley (1999, p. 1), in an excellent paper written while a graduate student at the University of New Haven, suggests that crime scene reconstruction is the foundation of the BEA method:

Deductive reasoning, via crime scene reconstruction, can and will provide the profiler with the appropriate information allowing him or her to construct the most logical profile of an unknown offender. This will enable the profiler to supply the requesting agency with investigatively relevant information.
The second stage of the BEA process, *victimology*, examines all aspects of the victim including lifestyle, hobbies, habits, friends, enemies, and demographic features. The information derived through the victimology can help to determine the existence or extent of any relationship between the victim and the offender. Two other related components of the victimology are victim exposure and offender exposure. *Victim exposure* refers to the possibility of suffering harm or loss by virtue of an individual’s personal, professional, and social life (Petherick and Turvey, 2008c). This risk is further partitioned into overall exposure (lifestyle exposure) and the exposure present at the moment of victimization (incident exposure). As a general rule, exposure can be low, medium, or high, indicating that a person is at a low exposure by virtue of personal, professional, and social life and so forth. In BEA just as much time should be spent examining the victim’s personality and behavioral characteristics as would be spent assessing the offender.

In the third stage, crime scene analysis, the profiler determines such factors as the method of approach and attack, method of control, location type, nature and sequence of any sexual acts, materials used, type of verbal activity, and any precautionary acts the offender engaged in (Petherick and Turvey, 2008b), such as wearing gloves or a balaclava, altering one’s voice, or wearing a condom. This stage also sets out to determine what types of crime scenes are involved in a criminal event. They include the point of contact; primary, secondary, and tertiary scenes; and the dump or disposal site. For example, a victim with extensive wounds that would have produced a substantial amount of bleeding is found in an area devoid of bloodstains. This suggests the victim was killed elsewhere (a primary crime scene) and then moved to the scene where the body was found (the dump or disposal site).

The final stage is the actual offender profile, known as offender characteristics. All the information from the previous stages is integrated and assessed through deductive reasoning to determine what the physical evidence, victimology, and crime scene characteristics collectively argue about the offender. Turvey (2008b) argues against offering the profile characteristics of age, sex, race, and intelligence because these are typically assessed inductively and not based on physical evidence. As mentioned in the “Inputs and Outputs of Criminal Profiling” section earlier, it is argued that the following four conclusions can be offered deductively and posited with a high degree of confidence:

- Knowledge of the victim
- Knowledge of the crime scene
- Knowledge of methods and materials
- Criminal skill

While BEA is a method relying on deductive logic, it could not, however, be characterized as purely deductive. The reason is that the process of deduction