Chapter 15: Fire and Explosives: Behavioral Aspects

The behaviors of fire setting and explosive use can be examined like any other behavior. They can occur in a variety of contexts and satisfy or can be motivated by multiple offender needs. They are not limited to use in a particular kind of criminal offense or against any particular type of victim. Their use in an offense is constrained only by offender motive, offender intent, offender skill level, and the availability of materials.

Definitions

Arson is a penal classification and is used to describe a certain constellation of criminal behaviors. This is generally the setting of fire with the intent to damage or defraud. Without this intent, the crime of arson has not been committed.

Bomb refers to an explosive that is detonated by impact, proximity, timing, or other predetermined means. An explosive is any kind of material that can undergo sudden conversion from physical form into a gas with the release of energy. The manufacture of explosives into a bomb for use in a criminal offense is also offender behavior.

When fire setting and explosives are used, the reconstruction and interpretation of offense behavior may initially appear difficult. This is because fire, explosions, or suppression will likely destroy some or all of the recognizable evidence. What the profiler should understand is that this does not mean there is no evidence or that cases in which arson is a factor are difficult to solve.

Teamwork between the arson investigator, the laboratory criminalist, and the criminal profiler is mandatory for the successful reconstruction of offender behaviors and subsequent motivations.

Fire and Explosives Use as Force

The use of fire and explosives is an extension of an offender’s will to use force. They injure or damage intended targets and victims and leave visible, recognizable patterns that can be interpreted by the nature and extent of the resulting human damage, structural damage, and environmental damage.

As extensions of an offender’s use of force, fire and explosives can be weapons used for the same motives as other types of force, from defensive to lethal. To interpret their motivational origins, attention needs to be paid to their context in terms of victimology and crime scene characteristics.

Victimology

One of the most important points to establish is who or what was the intended target or victim. Who or what was meant to receive the force in the form of fire and explosives, who was meant to suffer, and who or what was not? The targets of fire setting can be individuals, groups, property, and symbols. A target is defined as the object of an attack from the offender’s point of view. The intended victim is the person, group, or institution that was meant to suffer harm or loss. The intended victim and the target may be one and the same. There may also be more than one intended victim.

Because of the unpredictable, uncontrollable, and often imprecise nature of fire and explosives use, there may also be collateral victims. This term refers to victims who suffer harm or loss in the pursuit of another victim.

Individuals

This category refers to those who have been targeted for emotional, psychological, or precautionary reasons, as well as those who are collateral victims. Victims who have been targeted may also be symbolic. A symbol is any person who represents something such as an idea, belief, group, or even
another person.

**Groups**
A group can be any collection of people unified by shared characteristics, such as sex, race, color, religion, beliefs, activities, or achievements. They can also be symbolic. A symbol is a group that represents something else as an idea or a belief.

**Property**
Property refers to structures, vehicles, or other material items. It includes those items that have material or evidentiary value, as well as symbols and collateral items. A symbol can be any item that represents something else, such as an idea, belief, group, or person.

**Crime Scene Characteristics**
The same general crime scene characteristics detailed in Chapter 7 are also appropriate for the analysis of cases involving fire setting and explosives. First, it must be determined what type of involvement caused the damage at the scene: fire, explosion, or both. The following additional characteristics should also be determined.

**Accelerants or Explosive Material**
An accelerant is any fuel that is used to initiate the intensity or speed of the fire. Once it has been established that an accelerant was used, it must be determined whether the accelerant was native or foreign to the environment.

Common accelerants include:

- Gasoline
- Kerosene
- Lighter fluid
- Potable liquors
- Newspaper
- Accumulated trash
- Rags
- Clothing

The nature of explosive materials involved in an offense can range from the use of crude, homemade concoctions to the use of commercially available explosive material and the use of special, noncommercial explosives. The offender’s choice of explosive material is also dictated by experience, availability, motive, and intent.

**Point of Origin**
This term is used to describe the specific location where a fire is ignited or the specific location at which a device is placed and detonated. There may be multiple points of origin, which may also be highly suggestive of the intended target and intended victim.

**Method of Ignition**
The way an offender chooses to start or delay the burning of an accelerant depends on the types of fuels or explosives used, the amount of delay desired, and the mobility of the target.

Methods of initiation include:

- Open flames
- Fuses
Methods of initiation for explosive devices include:

- Blasting caps
- Hot surfaces
- Electrical arcs
- Static electricity
- Open flame
- Sparks
- Chemical reactions

**Nature and Intent**

Offender behavior may be used to infer intent. When considering the nature and intent of any fire or explosive used by an offender, it is helpful to determine intentional versus actual damage. This means learning as much about the environmental structure and fuels in the point of origin as possible. This should be compared with the amount of accelerant and explosives used and the amount of damage incurred by the target. The more fuel or explosives used, the more damage the offender intended to inflict.

Another important element to bear in mind when considering the nature and intent of any fire or explosive used by the offender is the targeting. Broad targeting refers to any fire or explosive that is designed to inflict damage in a wide-reaching manner.

**Offender Skill**

Manufacture, point of origin, method of initiation, and nature of the fire or explosives should be taken into account when assessing skill. Key questions include:

- How competent was the intended design or manufacture of the burn or the blast to achieving the offender’s objective?
- How competently was the burn or blast delivered to the point of origin and initiated?
- Did the burn or blast achieve the offender’s objective?

**Motivational Aspects**

There is a tendency among those who investigate arson to develop typologies from which to infer typical offender characteristics once an offender has been classified. For example, the FBI’s National Center for the Analysis of Violent Crime suggests the following six major motivations for arson:

- Revenge
- Excitement
- Vandalism
- Profit
- Crime concealment
- Extremism

This is simply an adaptation of the Groth typology with some nonsexual motives (profit and crime
concealment) and a nonmotive (vandalism). Although potentially reflective of motive, vandalism is a penal classification and not a motive in its own right.

**Applying the Behavior-Motivational Typology**
The use of inductive motivational typologies is not supported, and their deductive use is recommended. The behavior-motivation typology is meant to be a guide to help criminal profilers classify behavior, in context, in relation to the offender it serves. It is not diagnostic, and there are no yellow lines between them.

**Precautionary-Oriented Fire Setting or Explosives Use**
This motivational aspect is a more inclusive category than the FBI’s crime concealment motivation given previously. Precautionary-oriented fire setting or explosives use refers to the use of fire or explosives as a precautionary act—that is, when they are used to conceal, damage, or destroy any items of evidentiary value. That includes the partial or complete immolation of a crime scene or the victim.

It should be noted that these efforts are not always thorough. Forensic scientists should always thoroughly examine items intended for destruction in order to exploit their full evidentiary potential. Examples include:

Conceal, damage, or destroy the crime scene
- Setting fire in an apartment after robbing it
- Burning a shed to destroy evidence left behind from an abduction–homicide
- Blowing up a residence with a victim inside, using the gas main, to conceal homicide

Conceal, damage, or destroy the victim
- Burning a victim’s body in the woods after a rape–homicide
- Blowing a victim’s body up with explosives and hiding the pieces in different locations to conceal a homicide
- Placing a victim’s body in the trunk of a vehicle and burning the vehicle to conceal a homicide

Conceal, damage, or destroy evidentiary material linking the offender to the victim
- Setting a rape victim’s pubic area on fire to conceal evidence of a sexual assault or rape
- Burning bloody victim clothing
- Burning bloody offender clothing
- Burning records, deeds, titles, and policies

Conceal, damage, or destroy personal items linking the offender to the victim
- Burning pictures, videotapes, computer hard drives, or other types of locations containing physical documentation of the victim and the offender together
- Burning gifts given to the victim by the offender
- Burning gifts given to the offender by the victim

**KEY TERMS**

*Accelerant:* any fuel (solid, liquid, or gas) that is used to initiate or increase the intensity or speed of the spread of fire.

*Arson:* the intentional setting of a fire with the intent to damage or defraud.

*Bomb:* an explosive that is detonated by impact, proximity, timing, or other predetermined means.

*Broad targeting:* any fire or an explosive that is designed to inflict damage in a wide-reaching
manner.

Explosion: the sudden conversion of potential energy (chemical or mechanical) into kinetic energy with the production of heat, gases, and mechanical pressure.

Explosive: any material that can undergo a sudden conversion of a physical form to a gas with a release of energy.

Group: any collection of people unified by shared characteristics, such as sex, race, color, religion, beliefs, activities, or achievement.

Intended victim: the person, group, or institution that was meant to suffer loss, harm, injury, or death.

Method of initiation: the way that an offender chooses to start, or delay, the burning of accelerant or the detonation of a device.

Narrow targeting: any fire or explosive that is designed to inflict specific, focused, calculated amounts of damage to a specific target.

Point of origin: the specific location at which a fire is ignited or the specific location where a device is placed and subsequently detonated.

Symbol: anything that represents something else, such as an idea, a belief, a group, or a person.

Target: the object (item, structure, location, etc.) of an attack from the offender’s point of view. May or may not be the intended victim.

QUESTIONS
1. The term arson is:
   a. A behavioral descriptor
   b. The accidental setting of a fire
   c. The intentional setting of fire with intent to damage*
   d. The intentional setting of a fire where death results
   e. None of the above

2. Some common accelerants include:
   a. Gasoline
   b. Kerosene
   c. Lighter fluid
   d. Newspaper
   e. All of the above*

3. Which of the following is not a method of initiation cited by the National Fire Protection Association?
   a. Blasting caps
   b. Hot surfaces
   c. Electrical arcs
   d. Sparks
   e. Accumulated trash*

4. The term used to describe the specific location at which fire is ignited is called:
5. Which of the following is not a motivational aspect described in the text?
   a. Sadism*
   b. Revenge
   c. Vandalism
   d. Profit
   e. Extremism

6. The intentional use of fire by an offender with intent to damage or destroy is synonymous with arson. **True or False?**

7. According to the FBI trained arsonist expert in *Georgia v. Penson*, serial arsonists tend to be homosexuals or bisexuals. **True or False?**

8. List three motives for the use of fire in a crime scene.

9. List three methods of initiation commonly used by arsonists.

10. Give an example of fire used as a precautionary act.