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ARSON

ARSON

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INTRODUCTION.

Definition

The term 'Arson' is a legal category and is defined as "the wilful and malicious burning of property", Douglas et al (1992; in Holmes and Holmes, 1996).

Who Commits Arson?

Arson is not a unified behaviour and those who commit it are by no means a homogenous group and cannot be treated as such. Research has shown that while arsonists come from all age groups and social classes, "the majority of people found guilty of arson are in the 10-25 years age group and the peak age is 14 to 16 years," (Home Office, 1988). Lewis (1989) found that 61% of convicted arsonists were under 21 years old (see Prins, 1994). The proportion of males to females is consistent with other delinquent activities (see Home Office, 1988). Kolko (1985) for example, found 82% of juvenile arsonists to be male. Lewis (1989) found that of those convicted for arson, 93% are male (see Prins, 1994).

How Big a Problem is Arson?

The following statistics are drawn from the Arson Prevention Bureau (1999), in the UK.

- There are over 90,000 arson incidents each year
- In 1996, arson was responsible for 136 deaths and 3,284 casualties.
- Insurance companies pay out an average of £1 million every day on arson claims, in excess of £350 million a year.
- 70% of all school fires are arson; over 1,400 in 1996.
- Hospitals, churches and public buildings are regular targets.
- Other buildings particularly at risk are industrial premises, private garages and sheds.

Arson Typologies.

Many of those who have written about arson have recognised the wide range of motives and have differentiated between the different types of arson. There are therefore a number of typologies of arson to be found in the literature.

Rider (1980):

- a) *Jealousy motivated adult male.* Sets fires as results of insult to vanity and critique of his personality

- b) *Would-be-hero*. This individual rushes to scene to appear to save lives etc.
- c) *Excitement fire setter*. Sets fire due to need for personal excitement, not including sexual component
- d) *Pyromaniac*. Has compulsive element to personality that impels to set fires. Tension reduction, pleasure, and gratification or personality relief. (see Holmes and Holmes, 1996).

Ravataheino (1989):

- 1) insurance fraud
 - 2) revenge; jealousy; hatred; envy; grudge
 - 3) sensation
 - 4) alcoholic and mental patients and the ‘temporarily disturbed’
 - 5) vandalism
 - 6) pyromaniacs
 - 7) children under 15
- (see Prins, 1994)

Douglas et al (1994):

Douglas et al subdivide their arsonists on two different levels the first is related to the frequency and patterns of fire setting behaviours and the second level is concerned with the motivation of the arsonist.

- a) *Serial Arsonist*. Involves three or more separate fire setting episodes. Victims tend to be selected. Gaps between times are unpredictable.
 - b) *Spree Arsonist*. Sets fire to three or more locations with no “cooling off period” between.
 - c) *Mass Arsonist*. Sets three or more fires at one location during a limited time period.
- I. *Vandalism*. Tend to be young, act in groups, may target educational buildings, lower class background, live close to where commit crime. Tend not to abuse alcohol or drugs. Tend to flee from scene and not return. Or watch from safe distance
 - II. *Excitement*. Subdivided into: Thrill seeker; Attention seeker; Recognition seeker; Sexually perverted. Tends to set fires and watch from safe distance, or try to blend in with bystanders. Tends to come from middle class family. Typically commit crimes alone or with one other person and usually has offence history.
 - III. *Revenge*. Goal is to gain revenge for real or imagined injury. When women commit arson it tend to be motivated by revenge. Tend to distance selves from scene and do not tend to return. “The precipitating factor in this form of arson is a personal affront to the offender, whether real or imagined. It should be noted that sometimes the affront occurs several months or even years before the arsonist decides to take revenge by setting a fire.” (Holmes and Holmes, 1996)
 - IV. *Profit*. The least passionate arsonist. Committed solely for material gain. As the crime is premeditated the arsonist is usually at least of average intelligence, although he may have poor academic record.
 - V. *Concealment of Crime*. Goal is utilitarian – to get rid of evidence of crime already committed – murder, burglary, vehicle theft etc.
 - VI. *Extremists*.

Prins (1994):

- 1) Arson for financial reward.
- 2) Arson to cover up another crime.
- 3) Arson for political purposes.
- 4) Self-immolation as a political gesture.
- 5) Arson for mixed motives (e.g. in state of minor depression [reactive], as a cry for help, or under the influence of alcohol).
- 6) Arson due to the presence of an actual mental or associated disorder.
 - a) Severe affective disorder.
 - b) Schizophrenia.
 - c) 'Organic' disorders (e.g. brain tumour, injury, temporal lobe epilepsy, dementing processes, and disturbed metabolic processes).
 - d) Mental subnormality (retardation, learning disability), impairment.
- 7) Arson due to motives of revenge:
 - a) Against an individual or individuals (specific).
 - b) Against society or others more generally.
- 8) Arson committed as an attention-seeking act (but excluding motives set out under [5] above, and arson committed as a means of deriving sexual satisfaction/excitement (Pyromania).
- 9) Arson committed by young adults (16-) (Vandalism).
- 10) Arson committed by children.

Typologies are useful in that they confirm the importance of recognising the heterogeneity of arson and of those who commit it. The ability to identify the motive behind the arson can be crucial in the investigative process (see Prins, 1994; Home Office, 1988). Furthermore, the identification of a motive is important in terms of treatment and management. However, it is important to recognise that the ability to understand the motive of arson or any other offence is by no means synonymous the use of typologies, which are often little more than subjective classifications into broad sub-categories. It is important to recognise the limitation of typologies and to concentrate on a more complex behavioural analysis of both groups and individual cases in order to understand the often complex individual and contextual differences in the lead up to a fire-setting offence.

Theories of Fire Setting.

Arson has been explained along a number of different theoretical dimensions.

1. Arson as a product of psychosis.
2. Arson and manic symptoms – the control paradox.
3. Arson as an abnormal fascination with fire.
4. Arson as a displaced sexual drive.
5. Arson as displaced aggression.
6. Arson as a resolution to a problem.

Theoretical approaches 1- 5 will be reviewed briefly. **The main focus of this document will then be around point 6 – how arson is used to problem solve.**

Arson as a product of psychosis.

A number of authors have described arson as a motiveless crime that occurs as a result of psychotic processes in relation to Schizophrenia or other related mental health problems. Lewis and Yarnell (1951) suggested that schizophrenia accounted for around 10-30% of arson cases. Similar results have been suggested by a variety of other authors. However, it remains true that most arsonists are not mentally ill and do not experience psychotic symptoms. For those that do, the link between the psychosis and fire setting is not explicit and it cannot be concluded that a causal relationship exists. Furthermore, for those suffering from a psychotic illness, attributing the cause of their behaviour to hallucination or other symptom may be an efficient way of abrogating responsibility for the act.

In conclusion, although arsons are committed by people with psychotic illnesses, psychosis alone cannot explain arson behaviour.

Arson and manic symptoms – the control paradox.

Gunderson (1974) suggests that arson may be a by-product of the poor management of people with manic symptoms. Gunderson believed that arson was always committed in relation to a provocative event and he identifies this event as a failure to enforce external controls (for example failing to apply rules, allowing illegal behaviour to go unpunished). For those suffering from mania, the loss of external boundaries often leads to a heightened sense of chaos in their internal world and leads to increasing mania, grandiosity, panic and so on. The dilemma for these individuals is that they desire self-determination (and often complain about the lack of opportunity for this) yet desire safe and consistent external boundaries.

It is this anxiety and uncertainty following removal of external boundaries that Gunderson believes triggers the arson offence. An example of when this might occur is following de-institutionalisation, such as release from prison. In fact this commonly occurs. At this time, Gunderson believes that the person is communicating his need for greater support (or external control) through fire setting. Following on from this is the observation that arsonists are often very focussed on their problems and on seeking outside help to resolve them. However, also observed is that they do not ask directly for help, and instead communicate through behaviour such as fire setting.

Arson as an abnormal fascination with fire.

Some authors have argued that fire setting is due to an excessive fascination with fires. However, Jackson (1994) argues that fascination with fire is universal and that the degree to which non-arsonists are fascinated is under-reported and the degree to which arsonists are fascinated over-reported. Jackson reports anecdotally that the arsonists that he has worked with in the special Hospital System are the only patients who are not fascinated by fire! This issue is unresolved. However, 'pyromania' is a diagnostic category in the Diagnostic and Statistical Manual of Mental Disorders (4th ed.). Pyromania falls into the category of 'Impulse-Control Disorders'. One of the features that are central to the diagnosis of pyromania is a fascination with fire. Below are the diagnostic criteria:

PYROMANIA

- Deliberate and purposeful fire setting on more than one occasion.
- Tension or affective arousal before the act.
- Fascination with, interest in, curiosity about, or attraction to fire and its situational contexts (e.g., paraphernalia, uses, consequences)
- Pleasure, gratification, or relief when setting fires, or when witnessing or participating in the aftermath.
- The fire setting is not done for monetary gain, as an expression of socio-political ideology; to improve one's living conditions, in response to a delusion or hallucination, or as a result of impaired judgement (e.g., in dementia, mental retardation, and substance intoxication).
- The fire setting is not better accounted for by conduct disorder, a manic episode or antisocial personality disorder.

Pyromania is a very rare condition. Many (perhaps most) arsonists would not fit the criteria outlined above.

One of the most cogent arguments against a fascination with fire is that that relates to the choice of targets by arsonists. Jackson argues that if arson were merely a product of fascination with fire alone, then arsonists would chose safer, more socially acceptable and legal targets. Instead, they do not. Bradford, (1982), in a study of 34 arsonists referred for pre-trial examination by a psychiatrist, found that 80% had set fire to property, usually of a residential nature. Of this sample, 29.4% had set fire tot heir own homes and most (55%) set fires within a one mile radius of their home. Property is the most common target for arsonists and this cannot be explained by fascination with fires alone.

Arson as a displaced sexual drive.

The early part of the century was dominated by psychoanalytic explanations for psychopathology. Out of this climate arose two of the fundamental premises of psychoanalysis – that humans are born with innate unconscious drives towards particular ways of behaving. It was assumed that fire setting was the expression of one of these unconscious drives. The second premise is that of the ‘uncivilised id’ and tits association with the libido. The psychoanalytic view of fire setting therefore was that arson was the result of a repressed sexual drive. Some clinicians still hold this view and it is not uncommon for offenders to be questioned extensively with regard to sexual components of their offence. In fact, Jackson reports that the most common question asked of arsonists in the preparation of psychiatric reports is whether they masturbated at the scene of the crime.

Jackson (1994) suggests a number of reasons why this view may have perpetuated. Firstly, he believes that offenders collude with the psychiatrist. Offenders invariably do not fully understand their won behaviour and if a figure of authority offers a suggestion regarding its aetiology, then they are happy to agree. This is particularly likely since a high proportion have parallel concerns about sexual matters.

Also, on occasion arsonists will be asked if they experienced sexual arousal at the time of the offence (setting the fire). Jackson (1994) explains this phenomenon as a confusion on behalf of the offender

between physiological arousal (such as excitement or fear) and sexual arousal. (Few people actually report physical signs of sexual arousal such as an erection).

Of most importance is the clarification of the association between fire setting and sexual offending. Firstly, they commonly occur together in the same offender. However, the implication of this statement is not that they are causally linked in any way. The most likely explanation of this association is that sex offenders and arsonists share many of the background features that lead to a propensity to offend in these ways. For example it is common for both arsonists and sex offenders to have been sexually abused, bullied or neglected.

Arson as displaced aggression.

A number of features support the notion that arson may be a manifestation of displaced aggression. Firstly, property is the primary target, the fire is often set within a mile of home and revenge is a common motive.

However, there are a number of other factors that suggest aggression may not be complete explanation for all arsonists. Firstly, when comparing demographic and criminological factors, arsonist have more in common with property offenders than with violent offenders. Secondly, one would hypothesise that if arson were a form of displaced aggression, the aggression would manifest in another form when the offender did not have access to fire setting opportunities. This does not seem to happen.

All the above theories have their own merit and any of these approaches might be useful in helping you understand the behaviour of the offenders you supervise. However, although these theories help us conceptualise the problem, they are not very specific in terms of outlining appropriate interventions. The following theoretical approach can be applied to all arson offences.

Arson as a resolution to a problem: The only viable option theory.

Jackson, Glass and Hope (1987) adopt the view that arson is:

“...an adaptive response, at least regarding short term consequences. In essence this theory proposes that arson provides a highly effective means of escaping or changing difficult-to-tolerate circumstances where other means have proved impossible or excessively difficult, been inhibited, been ineffective or perceived as ineffective.”

This approach is therefore proposing that arson is best viewed as a highly effective means of changing hard to tolerate circumstances or conditions. In this sense they regard arson as a highly adaptive behaviour, at least in terms of the short-term consequences for the individual. In short, the arson is seen as a means to an end. The adverse circumstances or conditions can be internal (such as feelings or thoughts) or external (such as family conflict, housing).

Alongside the difficult to tolerate circumstances, is an individual who is unable to resolve the issue in any other way. This may be for a number of reasons such as lack of skill, lack of confidence or poor self-efficacy. The focus then of this theory in terms of assessment and treatment is therefore aimed at identifying the condition that the individual is driven to change and identifying factors about the individual that make arson the ‘only viable option’ in terms of change strategies.

The three basic tenets of the theory are summarised below:

1. Arsonists are personally, psychosocially and/or situationally disadvantaged to the extent that they are faced with a strong need to resolve internal or external problems. These disadvantages are the roots of pathological offending of many types, arson being one of them.
2. Arsonists are prevented from being able to solve these problems in socially acceptable ways due to lack of opportunity, skill or confidence, and therefore resort to the socially unacceptable action of arson. The question raised is why are other socially unacceptable options not adopted?
3. The factors leading to the use of fire may be relatively light or appear insignificant in the wider scheme. In this sense the emphasis for both assessment and treatment is diverted from fire setting as a central feature to the underlying psychological and situational problems.

This is a very influential theory and is similar to other theories that are around. For example, Arlow (1978) views arson as a ‘vehicle by which to redress grievances. Soothill and Pope (1973), describe arson as a ‘pathetic attempt’ to provide a solution to a problem. Vreeland and Levin (1980) propose that arson provides a way of controlling the environment that is not achievable by other means. In essence, these approaches are similar.

Pathological vs Non- Pathological Arson.

Jackson (1994) goes on to draw a distinction between pathological arson and non-pathological arson. The reason this is a useful distinction is that it firstly aids understanding of the problem and secondly it directs us towards appropriate interventions.

The focus of this document will be primarily on pathological arsonists. The reason are that pathological arsonists are the ones you are most likely to come into contact with and are the ones that present the greatest challenge for assessment and intervention. Also in learning about pathological arson, ideas and techniques can be applied to the non-pathological arsonist.

Non- Pathological Arson	Pathological Arson
<ul style="list-style-type: none"> • Single Offence • A number of perpetrators (group behaviour) • Financial / political motives 	<ul style="list-style-type: none"> • Recidivism • Fire to property rather than a person. • Fire setting alone or repeatedly with a single identified accomplice. • Evidence of personality, psychiatric or emotional problems. • The absence of financial or political gain as a motive for fire setting.

What Do We Know about Pathological Arsonists?

As already stated, Jackson views arsonists to be personally, psychosocially or situationally disadvantaged. Furthermore, he believes that arsonists are prevented from solving their problems more adaptively by a number of personal inadequacies or impairments.

A review of the literature around arsonists can throw some light on what constitutes the disadvantages in this group of individuals. Examples of areas of disadvantage covered in the general literature are below.

- Physical/psychiatric disorders
- Psychological disorders
- Social/ family problems
- Offending history
- Fire-related factors
- Family characteristics
- Fire-related behaviour

Physical/psychiatric disorders.

In studies, arsonists have been consistently found to have low or borderline IQs. This is significant as those with low IQs often have difficulty in understanding their problems, problems in generating solutions and in operationalising those solutions. This may place the person at a distinct social disadvantage. Added to this is the fact that those that have low or borderline IQs are often disadvantaged but not considered in need of special support, sympathy or facilities, as are those with very low IQs. This level of intellectual functioning can often lead to frustration and alienation.

Lewis and Yarnell (1951) also noticed a high level of minor physical abnormalities in their sample of arsonists. These abnormalities might be a cleft lip, small stature, unusual facial features and so on. Again these abnormalities were not serious enough to warrant special attention, but were serious enough to make the arsonist feel unusual or inferior, but not serious enough to warrant special attention. In fact, the authors noted that arsonist were often teased and bullied as a result of these features. Neurological difficulties have also been noted in higher than normal levels in arsonists. Although neurological problems do not have a direct causal relationship with arson, they are another feature of the individual that might place him or her at a disadvantage.

Psychological disorders.

Tennent et al (1971) noted a high level of depression amongst arsonists and McKerracher and Dacre (1966) noted a high level of suicide attempts. Jackson et al (1987) found that arsonists consistently rated themselves highly on a measure of depression when compared to a control group. Personality profiles of those tested psychometrically by Wolford (1972) found that most arsonists fitted a picture of 'persons undergoing psychic stress'. Hurley and Monahan (1969) reported high levels of social isolation in their group of arsonists. It was noted that this was often self imposed because of shyness, inability to make friends, fear of involvement and social distrust.

Social/ family problems

As already outlined, arsonists are often subjected to situational disadvantage. In terms of the family, several studies (Bradford 1982, Kanner, 1957, Nurcombe, 1964, Vandersall and Weiner, 1970) reported that nearly all the children who set fires experienced inadequate relationships with their parents. Bradford, noted that a biological parent was absent in a quarter of the cases, and Macht and Mack (1968) found that the father was often absent. Stewart and Culver (1982) found that half the fathers and half the mothers of arsonists suffered from anti-social personality or psychiatric disorder respectively. This study also found that the families had experienced disruption by fights, divorce or desertion; 24% of this sample had been abused by one or more parent. Nurcombe (1964) reported that two thirds of his sample came from chaotic, rejecting or deprived families.

Some of the psychosocial factors emerging in arsonists may be due to the style of parenting they experienced. In non-recidivist fire setters it has been found that parent made a non-punitive response to their children's behaviour. In recidivists, the parents were punitive. Jackson demonstrates the significance of this finding by positing the possible effects of a punitive response to fire setting (and other offending) on the child.

Punitive responses he suggests might:

- Model poor problem solving
- Restrict the development of independent problem solving
- Create a greater fear of rejection or negative evaluation
- Engender a greater degree of secrecy in the child.

The consequences of the above are often low self-esteem, impaired moral development, feelings of rejection, and a perceived lack of support.

Wooton (1959) suggested that delinquents generally come from large families. Hurley and Monahan (1969) reported the average family size amongst their arsonists to be 4.45, which was well above average at the time and still is.

Jackson et al (1987) also noted that arsonists were taken into care at an earlier age and that this might contribute to the pathological process by providing inconsistent care, diffusion of responsibility and authority and leading the child into negotiation with institutions rather than primary care givers.

Arsonists are also reported to have experienced high levels of abuse in childhood. Interestingly, Ritvo et al (1983) reported that a high proportion had been abused by burning. In a Special Hospital sample, Jackson (1994) reports that a high level of female arsonists had been sexually abused. In contrast however, Bradford (1982) reported that arsonists reported lower levels of parental abuse (physical, neglect and emotional abuse) than a control group of other offenders.

Low school achievement has been reported. Bradford (1982) found that arsonists had significantly less schooling than other offenders and that arsonists came from a lower occupational status. A poor work record was noted by Hurley and Monahan (1969)

More significantly, a number of findings indicate that arsonists have difficulty in problem solving. In terms of family background, authors (Kazdin and Kolko, 1986; and Regher and Glancy (1988) have found environments that are high in conflict, with poor negotiation of solutions, weak parental coalition

and unreceptiveness to the opinions of others. Keval (1989) found that arsonists tended towards an external locus of control and this has obvious implications for problem solving.

The choice of fire.

Jackson argues that there is no necessary significance attached to the use of fire in terms of symbolic significance just as there may be no symbolic significance to the knife of a murderer. He argues instead that it is only necessary that the individual's attention is drawn to fire setting and more importantly the impact of that action.

Conclusion.

Arson then needs to be recognised as a complex and dangerous offence. Those involved in applied or research settings must recognise that while the motivations for arson appear to be widespread, those stated motivations may be poorly understood by the offender him/herself and it is likely that an interaction of motives is present. The presence of psychological problems should not be ruled out on the basis of the motive alone (for example where financial fraud appears to be the motive). Research has shown that despite the wide differences in reported motives for this offence a diverse and serious array of psychological disadvantages are prominent in this group of offenders.

The Assessment of Arsonists.

It is strongly recommended that the **only viable option model** should be used as a framework for assessment. That is to say that the fundamental assumptions of this model should be borne in mind when gathering information.

1. Full Personal History.

Problems can only be effectively assessed in the context of someone's life history. A full personal history should be taken over a number of sessions. Although this is primarily an information gathering exercise to enhance your understanding of the problem, it also serves the purpose of establishing a better relationship with the client. Particularly you are looking for factors in the offender's past that impact on the circumstances they find themselves in and the factors that may have impacted on their ability to cope with these circumstances.

2. Offence History.

A full offence history is essential. Full details of the current offence are essential and the details should be drawn not only from the offender but from victim and other witness statements. The history should include past offences of all types. Particular attention should be paid to past offences that are similar to the current offence. Patterns of escalation in frequency and severity should be noted. Where possible,

full details from the offender should be corroborated by documentary evidence. Links should be made with the offender's personal history in order to put the offence history in perspective.

ABC analysis of the current and previous offences is the most useful way of tying all the information together. The Jackson model refers specifically to the circumstances in which the offenders find themselves, the limitations in their capacity to cope and the instrumental use of fire-setting to achieve a desired aim. As such, it is the one most likely to allow you to arrive at a full explanation of the behaviour. A full account of this method is provided later in the document.

3. Psychometric Assessment.

Although there are no psychometric tests available that measure arson behaviour per se, a number of psychometric tests are available to assess related matters such as personality variables, coping styles, social factors and mood/emotion variables. You may need to take advice from a psychologist as some of these measures can only be administered, scored and interpreted by a psychologist. Examples of factors that can be measured psychometrically are the following:

Depression	Social skills	Problem solving
Anxiety	Locus of control	Hostility
Anger	Personality styles	Self-esteem

Jackson's model of assessment.

Jackson (1994) the author of the Only Viable Option Theory, suggests that in taking a history you should be particularly vigilant for the risk factors that he outlines below:

High Risk Factors in the Assessment of Arson.

1. Personal demographic characteristics.

a) Physical/Psychiatric Disorders:

- Low or borderline IQ
- Mild physical deformity.
- Psychiatric disorder.
- Antisocial personality disorder
- Neurological disorder

b) Psychological Disorders.

- Unassertive personality
- Social avoidance or avoidance of conflict
- Excessively insecure personality, perhaps exposed by over-defensiveness
- History of self-mutilation and /or suicidal gestures
- Low self-esteem
- Over compliance / high suggestibility

- Cruelty to animals
 - History of substance abuse
 - High fear of negative evaluation
- c) Social/ family problems.
- History of being bullied
 - History of physical, emotional, sexual abuse
 - A high number of different institutional placements
 - Taken into institutional care at an early age
 - Unrealistic ambitions
- d) Offending history.
- History of aggressiveness
 - History of property offences
 - Truancy from school, home or hostel
- e) Fire related factors.
- History of fire-play
 - Personal experience of fire
 - Symbolic significance of fire
 - Vicarious experience of fire

2. *Family Characteristics.*

- High number of siblings
- Father absent
- Family excessively punitive and rigid
- Mother-child coalition and over-protectiveness
- High family disruption
- High expressed emotion
- Fire associated with a family member (actually or symbolically)
- Personality disorder in father
- Mental illness in mother
- Emotional neglect in family
- Poor conflict resolution in family

3. *Fire related behaviour.*

- Ambiguity of relationship between target and overt motive
- Lack of insight into motive
- Solitary fire-setting
- Developmental history of larger fires
- Fire to property
- Threat to life

- Fire to own property
- Offender involved in fire-fighting (e.g., calling the fire-brigade)
- Fire preceded by related threats of violence or fire
- Early developmental history of fire-setting
- History of similar targets and evidence of ritualistic fire-setting
- Predictable emotional states preceding fire (anger, rejection, boredom)
- Fire set under conditions of high psychological distress.

It is important to remember that not all these factors will be present for each individual. The constellation of factors will be unique to the individual. Jackson notes that these factors are not empirically tested and are based largely on his observation of a large sample of arsonists in special hospitals. For this reason the factors above are used as a guide to memory when considering the important factors in someone's developmental history.

Multi-modal Behavioural Analysis in the Assessment of Arsonists- The ABC Approach.

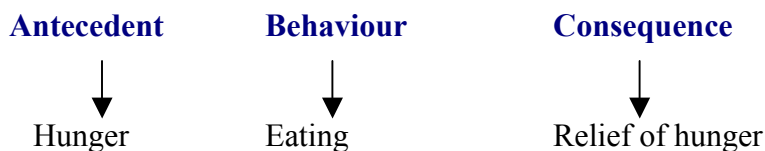
Some General Behavioural Principles.

Most professionals working with offenders will be familiar with working with the ABC model as an aid to understanding behaviour. The model allows identification of **Antecedents** to behaviour.

Antecedents are factors that are closely related to behaviour and that occur before behaviour, such as triggers or setting conditions. It also allows you to identify **Consequences** to behaviour, or things that occur as a direct result of or after behaviour. Consequences are therefore regarded as positive reinforcers, negative reinforcers or as punishments. In its simplest (uni - modal) form the model is applied to identify a trigger to a behaviour and a consequence to that behaviour.

In exploring behaviours as complex as offending, it is essential that the model is applied multi - modally, that is to say, along a number of different parameters of functioning.

An illustration of the multi -modal application of the model may be the example of eating. In an **uni-modal** format, eating might be explained the following way:



In the above example, the antecedent (or trigger) to eating is hunger. The consequence to the behaviour is relief of hunger, which is a negative reinforcer (it takes away an aversive condition – hunger), and therefore will lead to an *increase* in the behaviour of eating.

However, behaviour is generally far more complex than the above model would suggest. Eating is a complex behaviour and an enormous number of conditions can trigger eating behaviour and a variety of consequences might follow that. In order to assess eating behaviour properly, it is important to identify for each person, the whole range of antecedents and consequences related to eating. Below are a few examples of these.

Antecedents.

- Being in the kitchen
- Time of day
- Stress
- Feeling cold
- Feeling sad.
- Thoughts such as ‘I deserve a treat’.
- Attitudes such as not wanting to conform to body type stereotypes.
- Drinking alcohol (an appetite stimulant)
- A social occasion such as a meal out.
- Needing comfort (such as after loss of a relationship).
- Boredom.
- Sexual frustration.

All of the above serve for some people as triggers to eating behaviour. Note that these triggers are in different ‘modalities’.

For example, some of the triggers are: *emotional* (sadness, boredom), some are *physical* (being cold or an increase in appetite), some are *attitudinal* (‘it’s ok to eat when you’re down’), some are *cognitive* (‘I’m getting anxious – I’d better eat something’), some are *behavioural* (standing in the kitchen, drinking alcohol), some have to do with *relationships* (loss of a partner or sexual frustration).

If someone wants to change their eating behaviour they must identify ALL the triggers to eating in order to be able to manage the behaviour properly. For example, people on diets often do very well until they become bored or upset and then they find themselves bingeing. In order to avoid bingeing, they have to understand the link between stressful feelings and eating and plan to do something else in response to this emotion. If they find that they break their diet when they have been drinking by going out for a curry afterwards, they may need to stop drinking alcohol.

Offending behaviour works in the same way in that the behaviour of concern (such as arson) is often triggered by a combination of antecedents, all occurring at the same time.

With regard to antecedents, other factors are also operating. The first thing is the strength of the antecedent (or trigger). The strength of the antecedent partly determines how likely the behaviour is to follow. So, extreme hunger is very likely to be followed by eating, whereas slight ‘peckishness’ can be ignored. Therefore in doing ABC analysis, the strength of the trigger must be considered. It is also important to consider the frequency with which a trigger occurs in order to determine the likelihood of a behaviour occurring. For example, social occasions might not happen very often, but sad feelings might occur every day.

Also operating is an issue called ‘proximity’. This refers to the relationship between the antecedent and the behaviour in terms of both time and the strength of the relationship. In terms of time, an antecedent might be immediate (strong feelings of anxiety followed immediately by eating) or long-term (for example a habit learned from childhood such as using food as a comforter at times of stress).

Consequences.

In the same way that antecedents occur in a variety of modes, so do consequences. Below are some examples of consequences to eating behaviour:

- Feeling satisfied

- Comfort
- Indigestion
- Gaining weight
- Relief of stress
- Feeling rewarded
- Feeling bloated
- Guilt
- Loss of hunger pangs
- Sleepiness
- Wanting to eat more
- Thoughts such as “I shouldn’t have eaten that” or “I have failed at my diet”.
- Confirmation about attitudes to food.

As for the antecedents, they occur along different dimensions such as thoughts, feelings, attitudes, behaviour, physical sensations and so on.

What is the most important factor about consequences, is the fact that **the nature of the consequences determines how likely a behaviour is to happen again.**

In behavioural psychology, consequences are described as reinforcers and punishments. In general terms, reinforcers increase the likelihood of a behaviour occurring again and punishments decrease the likelihood of a behaviour happening again. The ways in which reinforcers and punishments are applied (or occur) also effects the likelihood of a behaviour recurring. It is this system of reinforcement and punishment that **maintains** a behaviour (keeps it going).

These points are illustrated below:

Positive Reinforcement.

Positive reinforcers are rewards. In the simplest terms, positive reinforcement occurs when there is a positive consequence to behaviour. For example, if when we eat we feel comforted, then comfort is a positive reinforcer. The greater the comfort, the more likely the behaviour (eating) is to recur. So a positive reinforcer **increases** the likelihood of a behaviour occurring again.

Negative Reinforcement.

Negative reinforcement is also a reward. Negative reinforcement occurs when a behaviour results in the removal of a negative state. For example, if eating results in hunger pains being relieved, then the loss of the hunger pain is a negative reinforcer. Again, the greater the reinforcement, the more likely the behaviour is to recur.

So a negative reinforcer also **increases** the likelihood of a behaviour occurring again.

Punishment.

Punishment occurs when a behaviour results in a negative consequence for the individual. For example, if after eating you experience agonising stomach pains, the likelihood of you eating again is diminished because the pain serves as a punishment.

Punishment results in a **decreased** likelihood that a behaviour will occur again.

However, although the nature of reinforcers and punishments come some way in explaining behaviour, the picture is not so simple.

- Firstly, *the person has to be aware* (at some level) of the link between the behaviour and the consequence. If, in the above punishment example, the person experiences the pain following eating, but attributes that pain to something else such as a change in the weather, the punishment will not serve to deter the behaviour of eating. The same applies to rewards. In behavioural language, the consequence has to be seen to be contingent of the behaviour.
- Secondly, *the strength of a consequence is very important in determining the likelihood of a behaviour occurring again*. For example, slight discomfort or a bloated feeling is not as strong a punishment as excruciating pain. Similarly, mild pleasure is not as strong a reinforcer as a deep sense of comfort or the relief of hunger pains. This is a very important principle because often the consequences of behaviour are both negative and positive. For example, eating a delicious cream cake may lead to great comfort (positive reinforcer) but also to guilt (punishment) and weight gain (punishment). In this instance, the pleasurable feelings of comfort often outweigh the negative feelings of guilt or fear of weight gain and the behaviour is essentially reinforced because the reinforcers win. In general terms, reinforcers are far more powerful than punishments.
- Thirdly, *the way in which a consequence results from a behaviour* (known as the schedule) is important in determining whether it will happen again. If for example, you experience pain (punishment) only one in ten times that you eat, then eating is likely to continue. The same applies to reinforcers to some extent. However, if a reinforcer is **very** pleasurable indeed and only occurs occasionally as a result of a behaviour, then the behaviour is likely to continue in search of that pleasurable consequence. The strength of the reinforcer outweighs the frequency with which it occurs. This effect is increased if the reinforcement is random in frequency. This is technically called an ‘intermittent schedule of reinforcement’ and is actually very effective indeed in encouraging behaviour to occur (gambling is a good example where reinforcement is massive on an infrequent and unpredictable schedule).
- Also important is *the time frame* (or proximity) in which the consequence occurs in relation to the behaviour. In the eating example, if the pain only comes on six hours after eating, then eating is also likely to occur again. If the pain is immediate, then eating behaviour will decrease. Similarly for rewards, if comfort is immediate eating is likely to continue, if it is delayed then another source of comfort will be sought. Weight gain only occurs a long time after the eating behaviour and therefore is very poor as a ‘punisher’.

In analysing behaviour this way, cycles or vicious circles may become apparent.

For example if stress is a trigger to eating and also a consequence (such as fear of weight gain) a cycle of behaviour has occurred. Eating is carried out to relieve anxiety but also increases anxiety and therefore increases the likelihood of eating again.

Finally, it is important to remember that each individual may experience different Antecedents and Consequences for each behaviour in which they engage.

To use a criminological example to illustrate the above principles we might consider the use of prison sentences as a punishment. In order for criminals to be deterred from crime by the use of prison sentences the following would need to occur:

- The offender would need to acknowledge the link between prison and their behaviour (they often don't!)
- The offender would need to be punished every time they committed a crime (they are punished for a very small fraction of offences).
- Imprisonment would need to follow the behaviour immediately (if it follows at all it is often months later). The punishment of prison would need to outweigh the reinforcing consequences (status, money) of the offence (it doesn't usually).

Using the Multi-Modal ABC Model With Arsonists.

Why Use the ABC Model?

The ABC model applied multi-modally (based on a model by Lazarus, 1976), facilitates this process and presents many advantages for the professional as described below.

- 1) It is systematic and comprehensive in that it guides the professional's attention to areas of functioning that might otherwise be overlooked, thus ensuring relative completeness of assessment. The Only Viable Option Model can be used to underpin the use of the ABC model.
- 2) It is possible to use the analysis as linking system between historical information (or the acquisition stage of behaviour) and the areas of current functioning being explored in the analysis of the offence.
- 3) It encourages offender participation in assessment.
- 4) It overcomes denial and hopelessness.
- 5) It allows identification of directly antecedent factors, or risk factors.
- 6) Consequences that may be maintaining the behaviour are also identified and thus, the model allows cycles of offending to emerge.
- 7) Some of the antecedents and consequences identified may be amenable to modification and therefore treatment targets are identified. Similarly, one of the treatment targets should be to break the vicious cycles identified in the analysis.
- 8) It is a fundamental tool of Relapse Prevention.
- 9) Repeating the analysis after treatment is a powerful way of evaluating any interventions.

How to Use the Model.

The multi-modal analysis can be completed by anyone working with offenders. With practice the model becomes very user friendly and can be used in a variety of settings where assessment is needed such as at PSR stage, at risk assessment, assessment for suitability for treatment and post-treatment.

Firstly, a reminder of the terminology:

- **Antecedent.** This refers to something that occurs before a behaviour is carried out. Other terms that might be used are ‘triggers’ or ‘setting conditions’. As the terms imply, it might be an immediate antecedent such as the ingestion of a substance, or something slightly less immediate such as a period of low mood.
- **Behaviour.** In understanding offenders this refers to the offence itself e.g., the rape, the murder, the shoplift etc. It is essential to be very specific about which behaviour you are assessing.
- **Consequence.** This is something that occurs as a direct result of the offence such as guilt, improvement in mood, heavy drinking, fear etc. Consequences serve as reinforcers or punishers.

The multi-modal approach allows you to identify the antecedents and consequences along the following dimensions, all of which are essential in understanding a complex behaviour such as committing an offence. It also allows you to assess the relative weight (how important in terms of strength and frequency they are for that individual in relation to that behaviour) of the triggers and consequences.

It is recommended that in order to ensure completeness of assessment, Antecedents and Consequences be assessed in all fundamental areas of functioning. The following categories are recommended:

Behaviour, Attitudes, Relationships, Emotions, Physical conditions, Cognitions and Sexual interests.

This approach is referred to as the BAREPCS system (see Perkins, 1991) and the format in which it is carried out should look like this:

	Antecedents	Behaviour	Consequences
Behaviour			
Attitudes			
Relationships			
Emotions			
Physical State			
Cognitions			
Sexual Interests			

How you use this form is really a matter of personal style. Some assessors find it useful to work through each of the categories in turn. Other assessors find it more useful to discuss the offence and the events around it in general terms and then fill in the individual sections. The reality of behavioural analysis is that often the categories overlap and it is sometimes difficult to differentiate between an attitude and a cognition and so on. Also, offenders, in their account of the offence, tend to jump all over the place and can't (and probably shouldn't) be tied to a particular box. So, be flexible and don't get anxious about sticking to the format rigidly. However, do be careful not to miss out any of the categories.

Below are some examples (and only examples!) of the areas you might want to explore within each category:

Behaviour: Descriptions of the offender's lifestyle (such as where they lived, if they were employed etc), the offender's actions and movements leading up to the offence. What did they do immediately prior to the offence (where were they and why, what time was it, how did they get there, who were they with etc).

Attitudes: The way the offender saw the world in a general sense. The offender's opinions/views about the world, life, relationships, women, children, money, the government and so on. These should be global ideas rather than specific thoughts or beliefs. This would include beliefs about how things ought to be. What's generally important to the offender and what doesn't really matter?

Relationships: Whom does the offender have relationships with? (friends, parents, workmates, lovers, partners?) What were those relationships like – good and bad? Is the offender a loner? Who can the offender talk to? Does the offender have a social life?

Emotions: The way the offender felt around the time of the offence. The offender's mood and feelings and the strength with which they were felt.

Physical State: Anything of note about his physical condition. Did drink and drugs effect the offender? Was the offender physically aroused? What were the physical feelings?

Cognitions (thoughts): What exactly was the offender thinking around the time of the offence? Asking about dialogue between the offender and any others present will give you a clue to the thoughts at the time. What words or phrases were going through the offender's mind at the time?

Sexual Interests: Were there any sexual thoughts or motives involved in the offence. What was happening in the offender's sexual world? Did the offender have any problems? How does the offender view himself or herself sexually?

Remember that each of these areas needs to be viewed before and after the offence. The consequence stage may be different (better or worse) as a result of the offence, but may also be unchanged.

Introducing the model.

In using the format to assess arsonists it is important to take the offender on board as a 'co-explorer'. ABC analysis is not something you 'do to' an offender, it is something you do 'with an offender'. For this reason it is important to set the scene as favourably as possible. You might consider setting the scene with the following information:

- Behaviour can be changed most effectively when it is fully understood (for example, those that believe that their behaviour came out of the blue cannot prevent it happening again).
- In order to fully understand a behaviour we have to consider all factors, even those that don't seem immediately relevant.
- The offender holds all the information needed to change the behaviour, even if they do not recognise it at this time.
- ABC analysis is one of the fundamental tools of relapse prevention. The information gleaned is used to help the offender manage their own behaviour in the future.

Tips for Conducting the Analysis.

1. Be very clear about the behaviour (B), which is the focus of concern. In this instance it is the arson offence. The behaviour is what actually occurred, not the offender's minimised version. Write the details of the offence in the behaviour column of the grid.
2. Aim to identify Antecedents along three different time frames – immediately before the offence, in a period prior to the offence (e.g., a week) and in the long term (lifetime functioning). You need to use additional sheets for this.
3. Set out as many antecedents (A) and consequences (C) of the behaviour (B) as possible. Remember, only the A's and C's for the offender are relevant (not for the victim or others as this has no bearing on the offender's behaviour).
4. Collect data from a variety of sources – e.g., interviews (with the offender, relatives, significant others, victim), tests (psychometric etc), files/records.
5. Remember to collect the data on the various levels of functioning using the BAREPCS system.
6. Be careful to distinguish between facts and hypotheses – don't jump to conclusions.
7. Identify hypotheses to check out at subsequent sessions or from records.
8. Look for cycles between the antecedents (A) and consequences (C).
9. Examine the patterns of reinforcement in the consequences (C) column:
 - i) relative strengths of rewards (positive and negative reinforcements) and punishments.

- ii) Immediate and longer term consequences. (immediate consequences even if less frequent and more serious than distant consequences are often most powerful in maintaining behaviour).
10. Remember that denial is likely and therefore a complete ABC requires a quite a lot of probing. The version of events first offered is unlikely to be correct. Use the Only Viable Option model of arson to underpin your reasoning.
 11. Remember that it is ESSENTIAL to use the victim and other witness statements to ensure an accurate account. Pay particular attention to any behaviour or dialogue noted by the victims.

Important Point to Note.

A mistake that is often made is to include in the consequences column the consequences for others such as the victim or relatives. It is NOT correct to do this. Behaviour is ONLY influenced by the consequences for the offender. For example, any harm caused to the victim will have no effect on the offender unless it invokes consequences for him such as guilt or remorse. If the offender has no feelings for the victim and their own actions, it will not effect the likelihood of the behaviour happening again. So, whilst you might wish to discuss the effect on the victim, only describe in the analysis itself, the consequences of that harm for the perpetrator. Cost-benefit Analyses are the place for considering the negative consequences for others and the two procedures should not be confused.

Linking the ABC Analysis with The Only Viable Option Theory.

In completing an ABC analysis you should be able to identify the following:

- What were the difficult to tolerate circumstances for the offender (internal and external)?
- What was the offender trying to achieve?
- Why did the offender feel unable to use other methods to solve the problem?
- What were the consequences for the offender (what did the offender actually achieve in terms of rewards and punishments)?

Having answered these questions you should have the outline of an explanation for the offence that fits in with the Jackson theory.

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