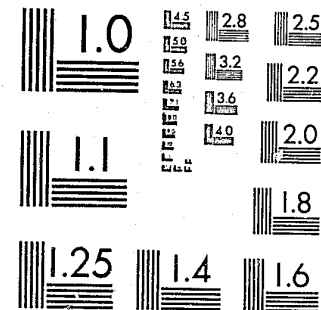


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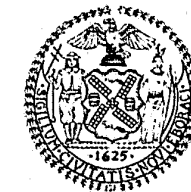
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STRESS-INDUCED ARSON: An Example of Stress-Induced Crime



CITY OF NEW YORK
EDWARD I. KOCH, MAYOR
NOVEMBER, 1984

PREPARED BY THE
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Stress-Induced Arson:

An Example of Stress-Induced Crime

By Dr. Nina Glick Schiller
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Abstract

Past studies of arson have failed to identify a single underlying psychodynamic or motivation for arson because arson is not a single crime. Certain fire setting behavior is best conceptualized as stress-induced. Together with acts of domestic violence such fire setting is part of a broader category of stress-induced crime. On the basis of an exploratory study of 23 convicted arsonists and a reanalysis of past research, individuals at risk of committing stress-induced fire setting are identified. Such individuals: (1) face a large number of difficult life conditions which they experience as stressful; (2) display low self esteem; (3) possess few coping resources; (4) depend for support on a limited number of interpersonal relations; (5) experience severe contradictions in these interpersonal relations; and (6) have a criminal record of crimes against property rather than against persons.

Stress-Induced Arson: An Example of Stress-Induced Crime

With arson fires dramatically altering the landscape in a number of American cities within the last decade, there has been increased public and government interest in the causes and prevention of arson. Yet there have been few new studies of the individuals who set fires.

To date, studies have been hampered either by the complete lack of a conceptual overview or by an inappropriate framework. One group of writers has pictured arson as a symptom of mental illness. The psychoanalytic literature presents arson as an indicator of sexual pathology. Yet empirical studies have not been able to provide systematic evidence that arsonists uniformly exhibit indications of any form of psychological disturbance. The sterility of the psychological approach has led a second group of writers to conclude that fire setting is a "complex phenomenon with multiple determinants and multiple intrapsychic functions for the individual" (Macht and Mack, 1968, p. 288). Such a multicausal theory of arson, however, is so general that it has little explanatory value. Still a third group of writers has sought simply to distinguish categories of motivation for arson. They have abandoned all attempts at theoretical formulation.

The purpose of this paper is to contribute to the development of an adequate conceptual framework in which to place the study of arson. Findings from past studies and results of a recent study of convicted arsonists conducted under the auspices of the New York City Arson Strike Force will be utilized.¹

It is herein proposed that some arson is stress-induced and that social settings and situational contexts which precipitate forms of violent behavior including arson can be identified. In developing this concept of stress-induced arson, the authors will draw upon the theoretical and empirical advances made "in tracing the links joining the psychological distress of people to the experience they have within the context of major social roles" (Perlin and Lieberman, 1979, p. 217). These advances have been made in the study of child abuse and of domestic violence, which until recently were also regarded as examples of psychopathological behavior. A number of writers have now

suggested that it is far more productive to view such violence as a consequence of stressful life events and circumstances.

It is not being argued here that all arson is stress-induced, nor that arson is a single crime (U.S. Department of Justice, 1980; Pisani, 1981). Fire is best seen as a weapon used in violent acts precipitated by broadly diverse circumstances. The framework developed in this paper will examine only those in which stressful life conditions provided the context for firesetting. Fires set as part of a profit-making scheme (for example, the purchase of a building with the intention of committing insurance fraud) cannot be explained by the concept of stress-induced arson.

The Problem of Sampling

Almost all studies of arsonists are studies of individuals who have been arrested for arson.² Frequently the individuals studied have been imprisoned for arson. Such studies can tell us nothing about the entire population of arsonists. Most arsonists are never apprehended and of those arrested still fewer are convicted and imprisoned (Pisani, 1981).

Not only is the population of arrested arsonists a small fraction of those who commit arson, but it is also an unrepresentative fraction. Almost everyone who sets a fire as part of a profit-making scheme is excluded from this population. Although there is widespread agreement that a large proportion of the arsons fires that occur in New York City and around the country are motivated by profit, few arrests are made for this type of offense. The population of convicted and imprisoned arsonists is even less representative of all arsonists (Pisani, 1981). Those with money and influence have access to legal resources and may avoid conviction. "About a quarter of the adults who are arrested and convicted are found guilty of lesser charges (for example, malicious mischief), primarily due to plea bargaining" (Bourdreau et al, 1977, p. 26). The severely mentally ill are placed in mental institutions and are not included in the prison population. The jails are filled with amateurs who are caught because they are amateurs. By and large, those imprisoned for arson were not

involved in a premeditated act; often they have not tried to avoid detection (Vreeland and Waller, 1979).

Of what use, then, are studies of arrested or convicted arsonists, or studies of individuals apprehended and referred for psychiatric counseling or remanded to mental institutions? While these studies cannot be used to describe the whole population of arsonists, or to test any theory applicable to all arsonists, such studies can be used to develop a conceptual framework applicable at least to some arsonists.

The Inadequacy of Previous Conceptual Frameworks

The belief that firesetting is a type of mental illness originated in the beginning of the 19th Century. In their review of the European and American literature on arson, Lewis and Yarnell (1951) trace the origin of this belief to an early 19th Century movement to obtain better legal treatment for the insane. Although arson was extremely rare, it was used by this movement as an example of criminal behavior which was motivated only by an "irresistible urge." Such fire setting was labeled pyromania by those who argued for different legal remedies for individuals who entered a plea of insanity.³

The conceptualization of arson as a mental illness was popularized and strengthened by Sigmund Freud, who provided a theoretical basis for this view. He postulated in Civilization and Its Discontents (1961) that the inability to control the use of fire indicated uncontrolled sexuality. Elsewhere Freud wrote, "In order to possess himself of fire it was necessary for man to renounce the homosexually-tinged desire to extinguish it by a stream of urine" (1932, p. 409). He addressed specifically the question of the motivation for arson, concluding that "fire setting is symbolic of sexual activity and it is the result of repressed sexual impulses" (1932, p. 406).

This psychoanalytic theory gave scientific authority to a centuries-old association between fire and sexuality (Topp, 1973). The predominance of the psychoanalytic theory led to a number of studies which investigated the relationship between fire setting and

enuresis (Yarnell, 1940; Hellman and Blackman, 1966), and fire setting and various forms of sexual disturbance (Tennant et al, 1971; Gunderson, 1974).

Research, however, has not been able to document these relationships. Some studies of children who set fires have shown that there is a high rate of enuresis within this group (Yarnell, 1940; Kaufman, Heims and Reiser, 1961; Vandersall and Wiener, 1970), but this rate is no higher than that found in the general population of children (Oppel, Harper and Rider, 1968). Reviewing the available literature, Vreeland and Waller conclude that "the data do not at this time support the conclusion that there is any special relationship between enuresis and fire setting" (1978, p. 22).

In addition, there seems to be no clear relationship between arson and the commission of sexual offenses. A British study of individuals in a special security hospital found that, whereas 56% of the non-arsonists had committed sex offenses, only 30% of the arsonists had a record of sexual offenses (McKerracher and Dacre, 1966). In a study of psychiatric prisoners in Great Britain, Hurley and Monahan (1949) found no significant difference between the arsonists and the non-arsonists in terms of the prevalence of sexual maladjustment. In an American study comparing sixty-eight adult arsonists in Southern prisons with a matched sample of sixty-eight adults convicted of other crimes, "no pattern of sexual abnormality or psychopathic tendency was established" (Wolford, 1972, cited in Bourdreau et al 1977, p. 25).

The failure to prove a relationship between sexual pathology and arson led some psychologists to search for a different psychodynamic to explain arson. They postulated that arson was the result of thwarted and displaced aggressive behavior (Vreeland and Waller, 1979; McKerracher and Dacre, 1966; Tennant et al. 1971). There is evidence from various studies to support this hypothesis (Macht and Mack, 1968; Eisler, 1972; Awad and Harrison, 1976). Lewis and Yarnell (1951), while focusing on sexual disturbances, noticed an association between repressed anger and arson. Reviewing the literature, Rider reports that "fire setting conveniently serves as an instrument for venting aggressive and revengeful tendencies in many, if not all, fire setters" (1980, p. 9).

The argument that arsonists are prone to displace their aggression rather than commit violent acts is strengthened by evidence that arsonists are not prone to violent actions against other people. McKerracher and Dacre (1966) report that sexual offenses committed by arsonists are less aggressive in nature than sexual offenses committed by non-arsonists. Vreeland and Waller report that "a very consistent finding in the literature is that arsonists had previously committed a significantly greater number of crimes against property (other than arson) and fewer crimes against persons than had non-arsonist criminals" (1979, p.23).

Some arsonists, however, are extremely violent or sexually disturbed. Still others are both violent and sexually disturbed. This variation among individuals classified as arsonists was highlighted by a study which compared arsonists sentenced to life imprisonment to arsonists serving determinate sentences (fixed-term sentences) (Sapsford et al. 1978). This study found that "lifers are more likely to have been diagnosed as psychopathic or as sexually abnormal; no fixed-term man has both these diagnoses (nearly three-quarters of even the 'long fixed-term' group had neither)" (p. 253).

This division within the arson prison population reported by Sapsford, as well as the de facto distinction made by the legal system between arsonists committed to psychiatric facilities and arsonists committed to prison, indicates that there are different types of arsonists, some psychologically disturbed, and some not. The characterization of "most arsonists...as psychopaths, or as having psychopathic personalities" (Levin, 1976, p. 45) must be discarded.⁴ Nor is it accurate to state that "all arsonists have severe psychological problems" (Robbins and Robbins, 1967, p. 797).

The variation in personality and behavior which can be identified within the population of convicted or institutionalized arsonists is evidence that arson is not a single crime; and within this variation can be found descriptions of individuals who committed the crime of stress-induced arson.

A study of Southern prisoners which compared the psychological profiles of arsonists and non-arsonists revealed that a significantly

greater number of arsonists "exhibited personality characteristics associated with persons undergoing psychic stress" (Wolford quoted in Rider, 1980, p. 13). This difference appeared even though both the arsonists and controls were undergoing the stress of prison life.

Individuals who had no psychological attraction to fire but rather set a fire in the midst of a frustrating, tension-filled situation would not tend to be habitual fire setters. It is interesting to note that most convicted arsonists studied by both Soothill and Pope (1973) and Sapsford et al (1978) showed no tendency to repeat the act of arson. Of the sixty-seven arsonists studied by Soothill and Pope, only one had committed arson prior to his or her arrest in 1951, and only two were subsequently charged with arson within the next twenty years.

Those studies which describe the psychodynamic of individuals who set fires as a consequence of the accumulation of tension, frustration, and anger (Macht and Mack, 1968; Eisler, 1972; Awad and Harrison, 1976), may be identifying the psychodynamic of stress-induced arson rather than a psychodynamic applicable to all arsonists. Individuals who translate frustration, rage and tension into fire setting have often been reported as having low self-esteem (Vandersall and Wiener, 1970; Eisler, 1972), which is correlated with the inability to cope with stressful events and conditions (Kaplan, 1970).

A number of writers have abandoned the effort to explain what causes individuals to commit arson in favor of developing a system with which to classify different motives for arson. The most influential of these systems of classification was formulated by Lewis and Yarnell based on a review of 1,145 adult males, 201 adult females and 238 juveniles (1951). Lewis and Yarnell delineated three major categories of arsonists: individuals with "an established intention to defraud on insurance" (p. 27) (whom they excluded from the analysis), "motivated" arsonists, and "irrational firesetters," whom they equated with pyromaniacs.

In 1954, the National Board of Fire Underwriters classified arson motives into four categories: (1) arson for profit, (2) arson to cover up crime, (3) arson for revenge, and (4) pyromania (Battle and Westron, 1978). The U.S. Fire Administration's Report to Congress in

1979 contained thirty-five different motives for arson. These, however, could be compressed into five categories, four of which were the same as those previously listed in 1954, and the fifth grouping designated "vandalism and malicious mischief."

But are the "motives" for arson spelled out in each of these systems of classification really motives? In many cases each "motive" is actually a description of a very different set of circumstances leading up to the fire, a different intent, and a different use of the weapon of fire. The attempt to identify different motivations actually reflects the fact that arson is not a single crime; and what is designated "arson for revenge" often is a description of stress-induced arson.

A few authors have tried to examine the circumstances surrounding the act of fire setting as a means of identifying the "determinants" of arson (Macht and Mack, 1968; Awad and Harrison, 1976; Vreeland and Waller, 1979). They have tended to view arson as a single crime with multiple causes. Vreeland and Waller list: (1) antecedent environmental conditions, including a background of family distress, large families, and low socio-economic status; (2) organismic variables, including sexual problems and genetic, physiological, and physical abnormalities; (3) fire setting behavior, including "what fire setters actually do;" and (4) consequences of fire setting, including "what consequences in the environment serve to maintain that behavior" (p. 27).

Such an extensive listing of determinants is the result of trying to explain all occurrences of arson under one conceptual framework. It is far more useful to link different determinants to different types of crimes. The factors which Vreeland and Waller identify as "antecedent environmental conditions" and which they emphasize when they develop a "social learning theory" of arson are not, in fact, determinants of all arson. They are descriptions of the determinants of stress-induced arson.

Turning psychoanalytic theory around, Vreeland and Waller postulate that "the remembrance of early experiences, either real or imagined, may be a result of, rather than a determinant of, an individual's current distress" (1978, p. 33). They see the fire

setting behavior itself as an indicator of an individual's current problems in coping with his or her environment. "Fire setting, associated antisocial behaviors, sexual, marital, and occupational maladjustments, and alcoholism can all be considered parallel indicators of a general lack of self-control, self-confidence, and the skills, particularly social skills, necessary to obtain rewards from the environment in an appropriate manner" (1978, p. 33). They place fire setting behavior in the context of an individual's history of "ineffectiveness in obtaining rewards" and the relationship of such failure to low self-esteem. They point out that such a pattern "is largely self-perpetuating, and it may persist far beyond the boundaries of the environment which produced it" (pp. 34-35).

The insights provided by Vreeland and Waller's application of social learning theory to the study of arson begin to provide links between an individual's psychodynamics and social and economic conditions which shape these psychodynamics. A more complete picture can be drawn by integrating into the study of arson concepts developed in the study of the relationship between stressful life events and conditions, and individual behavior. Such an integration has recently taken place in the study of family violence and child abuse.

Like fire setting, family violence long was regarded as psychopathology (Kempe, 1962; Galdston, 1965; Steele and Pollack, 1968). In refuting the psychopathological explanation for violence in the family, several authors have constructed a socio-psychological model which will prove useful in addressing the behavior of fire setters (Gil, 1971; Gelles, 1974; Straus *et al*, 1980; Hotaling and Straus, 1980).

A Conceptual Framework for the Study of Arson

The proponents of a socio-psychological model of family violence insist that an individual's violent behavior can only be understood within the context of a violent society. Focusing on American society as a case in point, they point to the glorification of violence in story and song and its endorsement as an instrument of socialization

within the school and family. "Physical abuse appears to be endemic in American society" (Gil, 1971, p. 644).

Given the context of a violent society, it is not surprising, and certainly not pathological, that "violence is as typical of family relationships as love" (Hotaling and Straus, 1980, p. 4).

Although the family is a focus of violence, not all families are equally violent. Most authors agree that lack of money and other resources needed for survival, poor working conditions, and unemployment contribute to violence within the family (Gil, 1971; O'Brien, 1971; Galdston, 1965; Gelles, 1974). There are class differences, then, in the experience of family violence, although family violence is certainly not confined to any one class.

In explaining the relationship between socio-economic pressures and violence, several authors see violence as a response to environmental stress. According to Gil, socio-economic pressures on the lower class weaken an individual's "psychological mechanisms of self-control" (1971, p. 645).

There is no widespread agreement among the investigators as to how "stress" is best defined. Some investigators define stress as the occurrence of events in an individual's life which require coping behavior.

Others prefer to define stress as "subjective reactions, behavior, or physiological responses that are believed to be indications of discomfort" (Mechanic, 1975, p. 43). For the purpose of this paper the writers will build on the second definition and view stress as a reactional behavior or physiological response which arises in reaction to a life event, strain or occurrence and which indicates discomfort.

The sources of stress impinge upon an individual from many directions. Theorists disagree as to what kinds of environmental stimuli constitute a source of stress. Investigators with a homeostatic view of society view any change in life circumstance as stressful, whether the change is a vacation or the death of someone close (Holmes and Rahe, 1967, p. 46). Others focus on unexpected, undesired changes such as the loss of a job (Gore, 1978), or on long-term difficulties or conditions (Kessler, 1979).

In attempting to trace the relationship between stress and

violence, the writers are particularly concerned with the stress caused by long-term difficulties or conditions such as poverty, lack of education or deteriorated housing. Other significant sources of long-term stress which might be linked to the possibility of eliciting a violent response, are racial discrimination and difficulties which arise from differences in language or culture. Little has been done to study such conditions as sources of stress.

Apparently, when disturbing events or conditions befall an individual, the body rallies various physiological responses to deal with the problem:

During the time in which the problem is being dealt with, the organism is in a state of greater or less mobilization, a state in which energy and resources are bound up in what can be called tension. In case of stressful problem-solving, tensions are eventually dissipated and the disequilibrium which produced them eliminated. In instances where problems are left unsolved, however, tensions persist until mechanisms are found to cope with them. Thus the failure to solve problems gives rise to a second order of problems; namely that of dealing with unsolved tensions. (Howard and Scott, 1965, p. 149)

There is much evidence that the occurrence of a large number of life events and conditions which an individual finds stressful lead to physical illness (Dohrenwend and Dohrenwend, 1974; Howard and Scott, 1965, p. 149). There is also a growing amount of evidence that cumulative stressful occurrences lead to various forms of mental illness (Dohrenwend, 1975; Wheaton, 1978), child abuse (Gil, 1971, p. 71; Straus et al, 1980), and domestic violence (Farrington, 1980). This study postulates that various other forms of violent crime belong on this list, including some forms of arson.

However, it is still necessary to explain why violent behavior, whether it be child abuse or arson, would serve as an adaptation to stress. In addition, the question of why one form of violence or one type of weapon, rather than another, is chosen by an individual, must also be addressed in order to give analytic strength to the writers' conceptual framework.

The use of violence as a response to stress is learned within a family. "An individual who was raised by parents who used physical

force to train children and who grows up in a violent household has had as a role model the use of force and violence as a means of family problem-solving" (Gelles, 1974, pp. 37-39).

Not everyone who experienced violence or child abuse or difficulties in life becomes upset by them. Apparently several types of variables intervene between an individual and his response to difficulties. Among the intervening factors which have been identified are the past history of an individual, the severity of the problem, the "coping skills" and personal strengths the individual possesses to deal with the problem, and the social supports and resources, both financial and psychological, which an individual can rally to his defense (Perlin and Schooler, 1978).

Individuals with low self-esteem are prone to experience stressful-like conditions in a manner which leads to stress-induced behavior (Kaplan, 1970). Moreover, an accumulation of stressful life conditions such as poor schools, poverty, residence in a poverty-stricken neighborhood, a difficult childhood, and an arrest history can contribute to low self-esteem. Failures in fulfilling roles within the family have been linked with low self-esteem and family violence (Gelles, 1974).

Theorists differ as to how social support intervenes between a potentially stressful event and a person's response. Many see the support as allowing the individual to locate some successful response to the negative stimulus, thus keeping tension from accumulating (Cobb, 1976; Perlin and Schooler, 1978).

There seems to be general agreement that an individual with interpersonal relations - whether to family, friends or co-workers - fares better than an isolated individual. However, Mechanic (1975) has cautioned that interpersonal relations do not a priori lend support. The ample evidence of violence between family members demonstrates that interpersonal relations which serve as a source of support can become a source of stress and a precipitator of violence.

In summation, the writers propose to set the study of arson within a framework which views the accumulation of a large number of stressful and long-term life conditions as the basis for the violent release of tension in a violent society. The precipitator of such a

violent response may be the one additional stressful event or condition, added to a lifetime's accumulation of stressful conditions, which becomes the proverbial "straw that broke the camel's back." Very often the precipitator of violence is a breakdown in the interpersonal relations which previously have provided support to an individual in his attempt to respond to the stressful conditions. The violence in this case is often directed against those most depended upon for support. As the popular saying goes, "You only hurt the ones you love."

The question as to why fire is chosen as the weapon in an instance of stress-induced violence, rather than a gun, fist, or knife still remains to be answered. The answer may lie within the psychological makeup of the person who chooses fire; individuals who set stress-induced fires may have problems expressing anger directly. Arson differs from other forms of stress-induced violence in that fire setting is less openly aggressive than a knifing or a beating. As cited above, previous studies have identified a number of arsonists who are less openly aggressive than individuals imprisoned for other crimes. Individuals convicted of arson who have a record of previous convictions tend to have committed significantly fewer crimes against people than their fellow prisoners. Vreeland and Waller have suggested that "an avoidance-mechanism is likely to be involved....When problems with other people arise, he is not likely to solve them in a direct...manner" (1979, p. 33).

On the other hand, fire may be used in stress-induced violence because it is an easily accessible weapon. These are crimes of the moment. Matches are available to everyone, unlike superior strength or a gun.

An Exploratory Study

The usefulness of this conceptual framework can be demonstrated by examining data gathered from an exploratory study of arsonists conducted by the writers in 1981-82. A 25% sample was drawn from a total population of 109⁵ individuals who had been imprisoned for more than a year for having committed arson in New York City. Out of

the twenty-seven individuals in the sample, twenty-one completed the interview and three spoke to the interviewer informally⁶. Thus, some data were obtained for about 85% of the sample and there was a completion rate of 81%. Eighteen males and three females were interviewed.

The study was designed to develop hypotheses rather than to test them. This seemed most appropriate given the theoretically undeveloped state of the literature. The assumption behind the study was that the psychoanalytical framework had proven unproductive, and that what was needed at this time was an exploratory study which paid attention to the situational context of fire setting. It was hoped that a more useful theoretical framework could be developed. The interview was designed to collect life histories and descriptions of the specific circumstances which led to the arson. The interviews yielded data about stressful life conditions and the stressful events or relationships which precipitated a number of arsons and led the writers to develop the concept of stress-induced arson.

To the extent that the sample is representative, it is only representative of imprisoned arsonists in New York City; this is satisfactory for the purposes of this paper, given its limited aim to develop further the concept of stress-induced arson, rather than to make general statements about all arsonists, or even all convicted arsonists. However, if the sample is indeed representative of convicted New York City arsonists, then it is significant to note that most individuals who are convicted of arson in New York City have committed stress-induced arson.

The respondents in the study were not habitual arsonists. None had any previous conviction for arson, nor did any have a prior history of fire setting, either as children or as adults⁷. Moreover, none of the respondents displayed a fascination for fire or fire setting. As one of the informants put it, "I didn't get a kick out of it at all. I was just angry and did it before I knew what I was doing." Almost all of the respondents condemned arson. They generally agreed that, "not realizing what you are doing can hurt a lot of people." None of the respondents was part of a profit-making "ring" or organization such as those recently described by Brady (1982).

Why did the twenty-four individuals in the study commit arson? At first glance the sample divides into categories of distinct and unrelated "motivations." Out of the twenty-three respondents, fire was a handy weapon in arguments among family, friends, or acquaintances in 65% of the cases; a way of earning some cash in 13% of the cases; a means of collecting insurance in 9% of the cases; an act of vandalism in 4% of the cases; and a means of getting the Department of Social Services to locate a family in 4% of the cases. In one case, an individual was accused of using fire to cover up a burglary but the convicted person denied any relationship to the crime and was in the process of appealing the case.

Each type of circumstance seems different from the others and the use of fire often appears incidental to the crime. At first glance, using fire as part of a quarrel would seem to differ dramatically from using fire to pick up some cash by burning down a supermarket for the owner of a competing supermarket.

Yet upon further analysis, twenty-one of the twenty-three cases are strikingly similar in three crucial and related ways: (1) the lives of these respondents were filled with conditions which the respondents experienced as stressful; (2) the respondents depended on a small number of interpersonal relationships for support in coping with these stressful conditions; and (3) the respondents set the fire when faced with an additional stressful circumstance. Most often, this additional stressful circumstance turned out to be a problem in an interpersonal relationship to which the respondent looked for support.

Among the respondents, there were two exceptions to this pattern: a prosperous shoe merchant accused of setting fire to his store, and a salesman accused of setting a fire to cover up a burglary. Both respondents were from the white middle-class, and both seemed to have grown up and lived in relatively unstressful life circumstances. Both of these individuals were among the three respondents who denied that they had set the fire, and both refused to be interviewed and spoke to the interviewer only informally. As a result, little more can be said about them.

From the remaining twenty-one interviews, a scale was made of

the life conditions which each respondent found to be clearly upsetting. Seventeen different types of stressors were identified in this manner. This scale is presented in the Appendix (see page 26).

Most of the stressors identified in this manner do not include events listed in the standardized instruments used to measure stressful life events such as the Peri (Dohrenwend *et al*, 1980) or the Social Readjustment Rating Scale (Holmes and Rahe, 1967). Such scales measure specific events such as a separation or divorce, the death of someone close, or the loss of a job. The stressors compiled in this study are long-term problems or conditions and their effect is cumulative. Other than the event which precipitated the fire, data about specific events were not collected. Any such stressful events which the respondents experienced would have added to their already stress-filled lives.

Although poor, unskilled, and having criminal records, most of the respondents are not drifters devoid of social ties or social skills⁸. Seventy per cent of them had lived in the same neighborhood for four or more years. Eighty-five per cent had lived in the same neighborhood for two or more years.

Only five were unemployed at the time of the fire; eighteen, or 78%, were employed. Only two of the men were unemployed, one of whom had been working until a few weeks before the fire.

Out of twenty-one respondents, only one was living alone. Eighteen, or 78%, had an intimate relationship with either a spouse or lover and had been living with that person either at the time of the fire or shortly before setting the fire. Five others were living with siblings and/or a parent.

Seventy-one per cent reported feeling close to members of their family. By and large, they came from large families. The respondents averaged 5.2 siblings each.

Some of the conditions on the list of stressful conditions, such as "lack of high school diploma" or "criminal record," originally may have been responses to other situations of high stress. One respondent, for example, dropped out of school to support a wife and child; another left school to help support his mother and numerous younger siblings. (Several respondents experienced school itself as a

source of stress; some because of their inability to speak English, others because of problems with teachers or because of incidents of violence in the school building.) Several respondents linked their first experience of criminal behavior to the generalized anger and frustration they had felt as teenagers. However, such responses to situations of stress then become sources of stress in their own right. In many cases dropping out of school reduces the possibility of ever obtaining decent employment and condemns the individual to poverty and disappointed life aspirations.

Each interview was assessed to determine the number of life conditions (out of the composite list of seventeen stressful life conditions) which the respondent had mentioned as stressful. No respondent scored lower than five out of the possible score of seventeen. The highest score was fourteen. The mean score was 8.5. The distribution was bimodal with both modal scores high, nine and eleven.

In the majority of cases, stressful life circumstances served as the context; within this context, ruptures in a close interpersonal relationship precipitated the setting of a fire. Fifteen of the respondents (71%) set a fire in the course of an argument with someone they knew well. In ten of the interviews (48%), the quarrel was with a spouse or lover; in three of the cases (13%), the quarrel was with a friend or acquaintance; and in two of the cases (10%), the quarrel was with a sibling.

The following response is typical:

I was living with a young lady. I had a real crush on her. We were young and didn't know about man and woman relationships - about what it was to pay rent and get an apartment. And we had problems with our family. I was young. She was young. I was quite jealous at that time. We had an argument - which was no surprising thing. We'd break up and get back together....We didn't understand. We were too young. Too eager to see things right too quick. Rent, gas and electric. We wouldn't deal with it at the time. We would run out of food. There was just two of us - she and I.

The respondent went on to explain the circumstances precipitating the fire:

One day we broke up for a good while. (It was) not the

way we wanted it. I wanted to say, "I'm sorry." I called home. A dude answered my phone. I was furious. Jealous. I went over there. The next thing I knew the place was on fire and I was in jail. It was an overnight thing. It was my first apartment. We got the furniture from my grandmother. I treasured it. I said if he's going to take you, I'll take my furniture. I poured benzene on it and lit it. We had benzene because we were painting the house with blue and white flowers. She and I still see each other today. We have a better understanding.

In this case and several others, the threat posed to a love relationship by a rival precipitated the arson. Sometimes when there is no rival, the threat of disruption of the household and its relationships is the precipitant:

I came from a broken home and it was my determination to keep things together....I had two other court cases (drug-related and ending in probation) and between these two cases, I started having mental problems with my wife. My wife wanted to live with my mother-in-law. We fixed up a house next door which belonged to my mother-in-law. I spent a lot of money fixing it up. Then my wife would lock our sons in my mother-in-law's house. Things got terrible between us.

I left. She told me to come back. Then she left me and my two sons. Then I took them to my mother-in-law's. The court said I had visiting rights. Every time I visited the kids, the kids begged, "Daddy, don't go." I tried every legal means to see my kids. I didn't sleep for months.

One night I said I wanted to see my kids. I hadn't seen them for months. This was really disturbing me. I couldn't even go to work....I went into the house and said, "I want to see my kids." We started to argue. I had my boy in my arms. My mother-in-law threw something in my eyes. My eyes started closing. A friend said she threw lye and that I'd better go to the hospital.

I thought I'd be blind for life. I wasn't thinking fire. My father-in-law had gas nearby. I must have been insane. I wanted to get them out of the house. The house was a monster to me. I lit a match. I didn't throw it. The gas blew up. The house caught on fire. Nobody was hurt.

Me and my wife communicate now. Now me and my wife are best friends.

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Me and my wife communicate now. Now me and my wife are best friends.

I didn't get a kick out of it all. I wasn't thinking at all - just angry. (I set the fire) before I realized what I was doing. If you got time to think or people close to you are there, they can bring you to your senses.

Sometimes the strain in a supporting relationship occurs not with a mate but with a sibling. Both respondents who set fires after arguments with their sisters were males, each with a wife and children. In both cases the relationship with the sister was an important source of support. In one of these cases, the fire was set not at the sister's apartment but at a clinic where the respondent had established ties of friendship and mutual respect. "They were people with money. I used to visit their homes. These people used to trust me."

In three instances the precipitating argument was not with a relative, but with a friend or acquaintance. In all these cases the respondent lived with a parent or siblings but looked to friends for emotional support and for building self-esteem.

In one case, the respondent was living with his mother after his brother had died of an overdose of drugs and his sister had moved away. The friend, who was the target of arson, lived in the same building as the respondent. The arson was precipitated by a public rejection: the friend threw the respondent out of a weekend party. (The respondent admitted he often felt lonely on weekends.) After being thrown out of the party, he ran and got some gasoline from a gas station in front of his house. His mother tried to intercede but her presence seemed only to have spurred him on.

In the second case of friendship-related arson, a woman with a history of alcoholism tried to set fire to the door of a bar. She had just been thrown out of the bar by the owner with whom she had been having an affair for several years.

In the final case the breakup of the relationship between the respondent and his girlfriend was part of the background of stress. The precipitating experience was a robbery. Soon after breaking up with his girlfriend, the respondent went to visit a cousin. As he left the building, he was robbed of \$65 by several people he knew. One of the robbers ran off into his cousin's building. The respondent grabbed a pair of old pants lying on the doorstep and set it on fire.

The remaining six of the twenty-one respondents with high scores on the writers' scale of stressful living conditions seem at first glance to have committed arson for reasons other than quarrels with someone they depended on for support. These crimes seem to have an element of premeditation which is lacking among the majority of subjects in this study. In three of the cases, the respondent was paid (or payment was promised) for setting the fire. In a fourth case, the respondent set the fire so his family would be given high priority for an apartment they had applied for in a housing project. In a fifth case the respondent was the owner of a small abandoned building in the South Bronx who was accused of hiring someone to burn it. And in the final case, the respondent was an alcoholic who burned an abandoned bungalow.

At first glance, the researcher might divide the cases according to their apparently different motivations. On further examination, however, the circumstances surrounding each fire contain tensions and difficulties in those interpersonal relations so necessary for the self-esteem of individuals battered by numerous other stressful life conditions. In these remaining six cases there is no quarrel which precipitated the arson, but there is definitely a pattern of recent additional stressful circumstances. These circumstances usually include the deterioration or threatened breakdown of social support.

In the three cases in which the respondents were paid to set the fires, all three respondents lived with relatives in situations in which they were seen, both by themselves and by family members, as superfluous persons in an overcrowded apartment. Each of these respondents looked to outside relationships for emotional support, and each had been experiencing difficulty in maintaining these outside relationships.

In the first case the respondent lived with his mother and nine siblings. He was asked to set the fire by two women; he was "very close" with one of these women. She promised to pay him. A promise to continue the relationship after she moved was also part of the arrangement. Both women wanted to get out of their deteriorating housing and move into a housing project. The respondent took some angel dust and then set the fire. As he described it, his need to

continue the relationship with the woman seemed more important than the promised payment.

The second paid arsonist was living temporarily with his aunt and cousins, and felt only minimally welcome. All his life he had been shuttled between various relatives. He had a long history of drug addiction and of "stealing and robbing to support my habit." When he struggled to end the addiction and turned to a methadone program, he found himself addicted to methadone. He felt he was back in the same position he had left; he needed money to support his habit. It was at this point that a friend, who had been commissioned by his boss to eliminate the competition, offered him a chance to earn \$500 by helping him burn down a supermarket. Both the pressure of his relationship with his friend and his addiction acted as a source of stress which precipitated the fire setting. Neither of these "arsonists" knew how to burn down a supermarket. They were caught by the police in front of the building while they were still trying to figure out how to get up to the roof.

The third paid arsonist lived with his sister, her husband, and their five children. He was asked by a local bar owner who had befriended him to burn down the bar so that the owner could collect the fire insurance. The owner paid the respondent \$100. But even here, other factors appear to have precipitated the fire. The fire seems linked to the respondent's relationship with his sister, who had taken him into her home (but with much apparent ambivalence). The apartment in which the respondent lived with his sister was right above the bar where he started the fire. His sister and her family were away visiting in the Dominican Republic at the time of the fire. While his sister was away, the respondent quit his factory job which, he said, paid him little and made him feel small: "They don't pay and want to boss you around too." It was soon after quitting his job that the respondent decided to help the bar owner burn down the bar.

The remaining three cases all differ from the others in specific motivation. But the theme of tensions in crucial interpersonal relationships runs through the circumstances which surround each fire.

One individual set a fire so that he and his family would be able to move from a dangerously deteriorating building to a housing

project. Again, there was a pattern of stressful, long-term conditions which accumulated in a situation of extreme duress. This respondent was one of the few in the sample who was unemployed. He was forced to live off the welfare that his wife and children received. He had come to the United States from Puerto Rico when he was eighteen and had found that, "It's difficult (to find work) when a person doesn't know English. It's hard because I wanted to take care of my family." To add to his problems, the apartment was unbearable:

There was no steam, no heat. Both my wife and girl (he had two children under the age of two) got sick. There were roaches and mice running around. The rest of the apartments were empty....I had to pay the super to clean.

But the superintendent wanted more than money, according to the respondent, who claimed that "the super was black and in love with my wife." Thus, there was also considerable stress caused by interpersonal tensions between the respondent and his wife.

Another respondent was accused of hiring someone to set fire to an insured building which he owned. But this landlord was not a member of a business conglomerate, nor was his purchase of the building part of a profit-making insurance fraud. The respondent purchased the building as the culmination of a life-long dream to own a piece of land. He was a Puerto Rican immigrant who had worked thirty years on two jobs in order to purchase a small building in the South Bronx. The house was finally purchased as a present for his wife. Then, "everything fell apart." The neighborhood deteriorated until neither his wife nor anyone else wanted to live in the building, which was constantly being vandalized. Their disputes over the building led him to separate from his wife. Finally the respondent looked around for someone to burn the building down. He ended up hiring a police informant.

In the final case, the respondent, while drunk, burned down an abandoned bungalow. But this case involved more than drunkenness and vandalism. The respondent, twenty-seven at the time of the fire, lived with his parents in Queens. He came from a white, working-class family which had managed to achieve a certain degree of financial stability. But the respondent saw no future for himself. He had left

school after the eighth grade. He worked as a porter for a small landlord in the neighborhood, earning \$115 a week. He saw no possibility of ever earning more or of setting up his own household. "How are you gonna live? If somebody would give me rent and food money, I'd move out. Where would I work? What other job could I get?"

He also did not see marriage in his future. He feared being hurt if he committed himself to one woman: "I'd end up being jealous of her all the time." He had been drinking heavily since the age of fourteen and was drunk when he started the fire. But the target of the fire was not chosen at random. He burned a small abandoned bungalow behind his home which belonged to the landlord for whom he worked. Checking the bungalow to make sure it was not being vandalized by neighborhood teenagers was part of his job.

The fire seems to have been precipitated by contradictions within the relationship which this respondent had with his boss. He saw his boss as a friend. "Me and him get along real good. He was good people." Yet it was this "good people" who paid him so little that he felt trapped, living with his parents and having no future. When the landlord left to spend the winter in Florida, the respondent burned the bungalow down.

Conclusion

The writers have hypothesized that there is a phenomenon of "stress-induced arson" and that conceptualizing certain types of arson in this way allows a more useful analysis of fire setting behavior. It is further hypothesized that this phenomenon of stress-induced arson is part of a broader category of stress-induced crime.

Researchers have long sensed that there is some underlying similarity among individuals of different sexes, ages, and racial and ethnic backgrounds who end up in prison for arson. But neither psychiatric research nor empirical studies were able to document conclusively the basis for the similarity. The question of why people set fires remained unanswered.

Increasingly, arson researchers abandoned the effort to identify a single cause of arson. Some turned to a "multidimensional" view of

arson. Others remained content to employ one of the various systems of classification of arson motivation and abandon the search for causation.

Only within the last few years have a few researchers come to the realization that the confused state of the arson literature and the failure to explain the cause of arson stemmed from the fact that arson is not a single crime. As Pisani has stated: "The fire which is deemed incendiary should be viewed as the malicious use of an instrument/weapon, and an investigation should be initiated to determine what crime was intended. To do otherwise is to ignore actual variation in the intent of the fire setter" (1981, pp. 4-5).

The realization that arson is not a single crime is a great advance in the effort to understand the cause of arson. No longer do we need to puzzle over categories of motivation. We can separate different crimes, each having separate reasons for employing fire, each with a different set of circumstances leading to the use of fire. The investigation of circumstances leading up to the fire is essential, since examining circumstances, rather than motivation, leads to the identification of the phenomenon of stress-induced arson.

A review of the literature and the data from an exploratory study have both revealed similarities among a group of arsonists - similarities which cut across motivational categories - and the details of each particular fire. A number of these similarities, as they are reflected in the psychological state of the arsonist, were summarized by Lewis and Yarnell:

They, for a variety of reasons, had allowed themselves to be pressured into a state of tension and hopeless despair by an accumulation of unhappy events, some of which might be fortuitous, and some the result of their own characteristic behavior....Also they might be considered to be working against a conviction that whatever they tried would fail anyway because that was what always happened to their expectations in previous experiences. It should also be restated that the fire setting usually came at a time of transition, when their feelings about themselves and about their external world were unclear. In such transitional periods, the usual defenses are weakened so that impulses, perhaps repressed or at least kept under control, can come to "the surface," and even force action. (1951, p. 397)

Using advances made in the study of stressful life events and family violence, we can advance beyond descriptions of psychological states as described by Lewis and Yarnell by examining the circumstances which result in stress-induced arson. Stressful conditions, the contradictions which sometimes underlie supportive interpersonal relations, and arson can be linked together.

Individuals will be at risk for a violent act such as arson if they have lived a life filled with hardships and difficult conditions, if such a battering has gravely reduced their self-esteem, and if they rely on only a few social relationships to bear the brunt of sheltering them from life's continuing hurts and disappointments. The individuals in this study were highly stressed. They were clearly at risk in terms of their propensity to release tension by striking out in some fashion. Most often their only support in these circumstances was either a mate, family members, friends, or acquaintances. However, such interpersonal support is often problematic; unlike a decent job, social position or wealth, it can actually reduce or threaten, rather than promote an individual's self-esteem.

The literature on family violence points to the many ways in which interpersonal relations can induce stress rather than alleviate it. In situations in which interpersonal relations must bear the whole burden of emotional support, breakdown of these interpersonal relations is highly likely.

In a seminal study in 1977, the Vera Institute of Justice demonstrated that in most crimes against persons, the perpetrator of the crime and the victim know each other. In 78% of the homicides committed in New York City in 1981, the victim knew the murderer (New York Times, 1983). It is possible that an accumulation of stressful life events and the concomitant failure of one's usual support system are at the root of many violent acts. Child abuse, certain types of assaults and murder, and stress-induced arson would, in several respects, seem to have the same etiology.

Before the concept of stress-induced arson can be utilized, further research is necessary. Carefully controlled studies must be conducted. It is essential to compare: (1) individuals who have committed stress-induced arson, (2) individuals who have committed

other stress-induced crimes such as crimes of domestic violence, (3) individuals who have committed other types of crimes not induced by stress, (4) individuals who have committed other types of arson and (5) individuals with no criminal record. The authors hypothesize that individuals who have committed stress-induced arson would resemble people who have committed crimes of domestic violence and differ from the individuals in the other two groups in the following ways:

- (1) the experience of a large number of difficult life conditions which the individuals experienced as stressful;
- (2) low self-esteem;
- (3) few resources except for a limited number of interpersonal relations;
- (4) dependence for emotional support on this limited number of interpersonal relationships;
- (5) severe contradiction in these limited interpersonal relations;
- (6) a criminal record which reflects crimes against property rather than against persons.

If controlled testing substantiates the validity of the concept of stress-induced arson, this conceptual framework would advance the continuing effort to understand the phenomenon of arson.

Appendix

Conditions Which Respondents Found To Be Stressful:

1. birthplace outside of the United States
2. low paid employment
3. unskilled employment
4. children under the age of eighteen, belonging to respondent's mate
5. deteriorated neighborhood
6. difficult childhood
7. criminal juvenile record
8. criminal adult record
9. language or cultural difference
10. left high school before graduation
11. residence in deteriorated condition
12. sporadic employment history
13. history of alcohol or drug abuse
14. problems paying bills
15. friction with the landlord or superintendent
16. short-term residence in neighborhood
17. children under the age of fourteen, belonging to respondent

Footnotes

1. This research was done under the auspices of the Arson Strike Force, Office of the Mayor of the City of New York. It was funded by the Arson Analysis and Prevention Project #2, New York State Division of Criminal Justice Services, and Contract #D001295, New York State Office of Fire Prevention and Control.
2. Kafry, who studied fire setting behavior among a group of school children with no reported incidents of arson, is an interesting exception.
3. The opinion that arson was a single crime with pathological origins has never been unanimous. In 1885, for example, Pilgrim summarized the predominant American opinion at the time: "There is no such psychological entity as pyromania, and an incendiary act is either the crime of arson or the symptom of a diseased or ill-developed authority" (quoted in Lewis and Yarnell, 1951, p. 11).
4. The impossibility of obtaining an adequate sample of arsonists in the general population would make such statements questionable in any case.
5. For ninety-three of these arsonists, arson is the most serious charge for which they were serving time. The remaining sixteen had more serious felony charges in addition to the arson charge.
6. The interviews consisted primarily of open-ended questions and lasted approximately one hour. They were conducted in a visiting room or counseling room within a New York State prison. Individuals sentenced for more than a year in prison in New York City are housed within the New York State prison system. New York State prisons are divided into three categories of security: maximum, medium and minimum. Individuals are assigned to a prison depending on the length of sentence, criminal history, and other factors. This sample was drawn from all three security gradations as follows: four from maximum, two from medium, and three from minimum. The sample was chosen in a manner to assure that it contained a gradation of prison sentences from least to most severe. However, among those individuals who refused to complete the interview were those with the maximum sentences. Of the twenty-one completed interviews, the sentences ranged from 1.5 to nine years.

7. The history of each respondent is based on interview data. Less than one-third of the arrest dockets for the sample could be located. These were read to check the accuracy of interview data. To the extent that arrest and conviction records could be compared, the interview data proved to be accurate.
8. The writers' findings are in sharp contrast to those of Inciardi (pp. 145-155) who characterized "revenge fire setters" as living a "nomadic life" with "no marital ties."

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