

PSYCHOSOCIAL FACTORS
UNDERLYING
JUVENILE DELINQUENCY

T.E. SHANMUGAM



UNIVERSITY OF MADRAS

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JUVENILE DELINQUENCY

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PREFACE

Systematic studies of delinquency from psychological and sociological points of view comparable to the works of Glueck and Sheldon; and Brown, to mention only a few studies in recent times, have not been attempted in our country. It has been the ambition of the present author, since he began the psychological study of delinquents in 1944, to undertake such study. He was able to fulfil this to some extent by this study. In fact, study of some of the psychological aspects like Creativity, use of techniques like Semantic Differential and Cognitive Dissonance have not been attempted in the field of delinquency or crime in India. That way, this study may be considered as unique.

The results of the present study have, by and large, supported the findings reported by investigators in other countries. Regarding factors of Extraversion, Neuroticism, Psychoticism and Criminality as dimensions of delinquency the present findings support the contentions of Eysenck. Similarly the results related to Cognitive Dissonance, Semantic Differential and Level of Aspiration are in the direction of the theoretical framework of Festinger, Osgood and Lewin. However, the results related to Creativity used in the meaning of divergent thinking is highly interesting in the sense that the delinquents were found to be more creative than the non delinquents.

An attempt has been made to spotlight only a few important aspects of this study. A careful reader, will note that many more aspects of delinquency have been covered in this study.

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The volume of data was so much, services of the staff and research scholars of the Department had to be invoked. Dr. S. Narayanan, M.A. Ph.D., then Lecturer in Psychology, Mrs. S. Parvathy, M.A., M.Litt., Mr. K. Mani, M.A., M.Litt. and Mr. V. Nagarajan M.Ed. then Research Fellows in the department have all helped the author in the analysis of the data.

Miss. M. L. Nirmala toiled the whole year in reading the proof, designing the format of the book and finally getting the book published in the present form. The author thanks her for all these. The secretarial work related to the investigation has been efficiently handled by Mr. K. S. Mahadevan, B.Sc. The author thanks him for this.

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DEFINITIONS AND THEORIES OF DELINQUENCY

Delinquency is a psycho-social problem. In a developing country, like India, the problem of delinquency is becoming increasingly complex and therefore it is necessary for a scientific study of the problem in the Indian context. This is particularly so because there is dearth of such studies in our country and the workers in the field of delinquency are handicapped for lack of scientific information. Of course there are several studies of this problem in the west. But, it is well known, that results of studies in one country cannot be applied to another country. From this, it is not argued that the basic laws underlying delinquent behaviour will be different in different countries or in the same country in different states. It is only meant that the delinquent behaviour like any other human behaviour is intimately related to the society and as the nature of society varies, the factors contributing to delinquency also may vary. The present investigation purports to study the various factors, viz. cognitive personality, motivational and social, contributing to juvenile delinquency in the Indian context, with the view to identify the factors which contribute to delinquency. The knowledge derived from such a study it is hoped may be useful in itself to identify potential delinquents and to take measures for preventing them from exploding into crime.

What is Delinquency?

There are different views about the concept of delinquency. The definition of delinquency becomes complicated because of the various types of delinquents. There are the adjudicated delinquents,

who have been processed through the courts and 'unofficial delinquents' who are handled unofficially by the courts, police and other agencies. In the opinion of Tappan the concept delinquency should include these two kinds.

Sykes and Matva (1957) and Robinson (1961) support such a view. Robinson (1961) for example says that the concept should embrace any behaviour which a given community at a given time considers as coming in conflict with its best interests, whether or not the offender has been brought to court. The other view is to consider those individuals who have gone through the courts. Sellin and Wolfgang (1964) on the otherhand have suggested that the legal definition of delinquency alone is broad and reasonable and that the other definitions lack uniformity. Therefore they have stressed that the legal definition must be considered.

West (1967) has indicated that the offences committed by juveniles differ in kind and motive from the crimes of adults and therefore they have to be treated differently. According to him the familiar tags—'a crime is what the law says it is and a criminal is a person convicted of crime'—are not suitable to the definition of delinquency because it does not categorize the conditions of being beyond parent's control, or being in moral danger or of failing to attend school.

Gibbons (1970) says that juvenile delinquency is not a homogeneous form of behaviour which is prohibited in the criminal law. According to him it is rather a heterogeneous mixture of youthful transgressions.

Woodmansey (1971) in his article on 'Understanding Delinquency' has given a psychiatric definition of juvenile delinquency. He defines it as, "a mental state specifically characterized by a tendency to behave without regard for, or in active opposition to, the welfare of others".

Giallombardo (1972) after reviewing the past literature on juvenile delinquency suggests that the increase in delinquency rates during the past three decades does not represent a genuine index of delinquent behaviour but shows that the rates are linked to official

policy. In other words, delinquency is related to law in force at a given time.

Walker (1973) has stated that delinquency refers to acts that violate a state law or municipal ordinance by youth of juvenile court age or to conduct so seriously anti-social as to interfere with the rights of others or to menace to the welfare of the delinquent himself or of the community.

Theories of Delinquency

The search for delinquency causation for treatment and prevention of delinquency has gone in many directions during the past century. In general three major approaches have been made: biogenic, psychogenic and sociogenic. Biogenic views stress faulty biology to be the reason for juvenile misconduct. Psychogenic approaches however are varied in character, but in general stress the psychological pathology of the delinquent. The sociogenic theories explain delinquency in terms of conditions of social structure.

Biogenic Theory

The application of the principles of human biology to explain criminal behaviour marks the beginning of a scientific approach to the understanding of the varied forms of criminal behaviour. Cesare Lombroso (1911) may be considered as the pioneer in this regard. He declared a criminal to be an atavistic phenomenon, a biological throwback since the somatological characteristic of the criminals resemble those of primitive men. A number of investigators (Hooton, 1939; Sheldon, 1949; Sheldon and Glueck, 1959, Cortes and Gatti, 1972) have attempted to explore the constitutional characteristics of criminals. These investigators have fairly demonstrated that delinquents and criminals are characterised by predominant mesomorphy as assessed by rigorous anthropometric measurements.

According to the proponents of constitution theory typical temperamental characteristics are associated with different constitutional types. Sheldon (1940, 1942) holds ectomorphs to be cerebrotonic (restrained, inhibited and somewhat withdrawn), mesomorphs to be presumably somototonics (active, assertive and vigorous) and endomorphs to be viscerotonic (relaxed, comfort-loving and sociable). In this way constitutional studies of crime and delinquency have their own

impact on any generalisations on the factors associated with psychological variants of behaviour. The findings of constitutional psychology may provide heuristic hypothesis for the new approaches to the problem. For example Cortes and Gatti (1972) have attempted to find out a relationship between need achievement and delinquency, on the basis of their hypothesis that need achievement is related to delinquency and that delinquents are mesomorphic and thus mesomorphy may be associated with need achievement.

Psychological Theories

The early decads of the twentieth century gave rise to several psychological studies on delinquency which have lent to several perspectives and theories.

Hirschi (1961) has stated that all delinquency theories are based on three fundamental perspectives. The first perspective is motivational theories which emphasize that legitimate desires that conformity cannot satisfy, force a person into deviance. According to the second which is a control perspective, a person is free to commit delinquent acts because, his ties to the conventional order have somehow been broken and the third perspective is based on the cultural deviance point of view which says that the deviant conforms to a set of standards not accepted by a larger or more powerful society.

There are many researchers who have stressed the psychosocial and psychiatric variables to be highly related to delinquency. Glueck and Glueck (1950) have described the characteristics of the delinquent as follows :

According to them physically a delinquent is mesomorphic in constitution. In attitude he is hostile, defiant, resentful, suspicious, stubborn, adventurous, unconventional and non submissive to authority. He is average in concrete intellectual expression and below average in abstract intelligence. Socio-culturally he is reared from a home with parents with emotional instability and who are immoral and who do not show affection to him. He comes from an inconsistent and under privileged environment.

Psychoanalytical And Psychiatric Theories

There are psychoanalytically oriented explanations of delinquent-behaviour. Freud, for example interpreted delinquency in terms of

the unconscious. David Levy (1933), Friedlander (1947), Eissler (1949) and Erikson (1956) have built their theories of delinquency on Freudian premises.

Aichorn (1955) asserted that there must be something in the child himself which the environment brings out in the form of delinquency. Delinquents behave as they do because they are in some way, 'mal-adjusted' persons. Aichorn's statement indicates further that the environment may function as a precipitating force, but never as a primary force in causation.

Woodmansey (1971) has given psychiatric explanation to delinquency. He has stated that delinquency is a kind of abnormality in which the delinquent imagines the others to be hostile and becomes hostile to others. With each fresh experience this hostility to others gets reinforced, and finally explodes into overt form of antisocial behaviour.

Theories Emphasizing Personality Types and Traits

Personality theories attempt to delineate enduring psychological characteristics related to behaviour. Eysenck (1957, 1967, 1970); Eysenck and Eysenck (1970) approach to the understanding of behaviour in general and criminality in particular is an example of this approach. Eysenck speaks of genetically inherited characteristics of nervous system as mainly responsible for behaviour and seeks to explain individual behaviour in terms of Extraversion, Neuroticism, and Psychoticism. He has also emphasized the importance of environmental factors in facilitating criminal behaviour. To quote Eysenck "(1) Propensity to crime is universal, but is held in check in most cases by a given person's conscience". (2) This 'conscience' was essentially a generalised set of conditioned responses built up during childhood and adolescence, according to the rules of Pavlovian conditioning; (3) This 'conscience' might be expected to be underdeveloped either through failure of social and family condition to provide the proper means of developing it, or through innate weakness in the person concerned of the mechanism involved in the elaboration of conditioned responses. It was further postulated that (4) extraverted people tended under certain stated conditions, to condition less well than introverted ones, thus making them *ceteris paribus*

more likely to behave in anti-social fashion and that (5) reinforcing the extraverted or introverted tendencies favouring or disfavouring anti-social conduct". From this chain of argument, each link of which was supported by experimental evidence it was supposed that anti social conduct particularly crime would be found more frequently in people whose personality placed them in the high extraversion, high neuroticism quadrant (Eysenck and Eysenck 1970, p, 226-227).

According to Eysenck, conditioning depends upon the characteristic of the nervous system and 'conscience' is nothing but a conditioned responses built up on social conditioning to avoid yielding to tabooed temptations. In speaking about environmental factors Eysenck (1967) speaks in terms of interactionistic view which holds all human behaviour to be phenotypic produced by the interplay of genetic and environmental factors. Thus certain personality types interact with certain environmental conditions, and other personality types with other environmental conditions. Eysenck even goes to the extent of suggesting that different personality conditions and combinations give rise to different types of crimes.

Sociologists have been increasingly interested in applying the concepts of ecology, class and role to an understanding of delinquency. They also speak of delinquency as a product of learning and acculturation. Important authors who applied learning theories predicting delinquency are Sutherland, and Rotter. Sutherland (1955) hypothesized that criminal behaviour is learned in a pattern of communication as persons acquire patterns of lawful behaviour. His theory was called the theory of differential association. He felt that criminal behaviour is not inherited and one who is not already trained in crime does not indulge in criminal behaviour. Rather criminal behaviour is learned in interaction with other persons, especially within intimate personal groups. This according to Sutherland would mean that impersonal agencies such as movies and newspapers play a relatively unimportant part in the genesis of criminal behaviour. Sutherland further says that a person becomes delinquent because of an excess of definition to violation of law over unfavourable definitions to violations of law. Differential association vary in frequency, duration, priority, and intensity. This means that associations with

criminal behaviour and also associations with anti-criminal behaviour vary in those respects. Frequency and duration are modalities of association and priority is assumed to be important in the sense that lawful behaviour developed in early childhood may persist throughout life. Sutherland has criticized the theorists who attribute happiness principle, striving for social status, money motive and frustration to account for delinquency. Jaffery (1965) quoting Sutherland, has said that according to modern learning theories the delinquent family reinforces delinquent behaviour through verbal approval, actual example, disinterest and so forth. Burgess and Akers (1966) and Defleur and Quinney (1966) clarified it further by modifying and revising Sutherland's Differential Association theory.

Merton (1938, 1957) in his study of delinquents has stressed the importance of 'anomie'. According to Merton, deviant behaviour involves, "Selective adherence to accepted social norms and occurs in areas of specific structural strains in a social system". Merton suggests that 'anomie' develops because of break down in the relationship between goals that place great stress on success and to which all groups in our society are indoctrinated without equivalent emphasis on institutional or legitimate channels of access to these goals. In the areas where the discrepancy between goals and means is greater, a condition of 'anomie' prevails and individuals resort to illegitimate means to achieve the goals.

Cohen (1958) modified Merton's theory in his theory of delinquent subcultures. His concept is also rooted in the discrepancy between culture goals and institutionalized means. However, according to Cohen, the delinquent subculture is a reaction formation to socially induced stresses that our social class system inflicts on working class boys. He has attempted to explain the poor working class boys as non-utilitarian, malicious, and negativistic.

According to Sykes and Matza (1957) delinquent behaviour like most social behaviour, is learned in the process of social interaction. The world of the delinquent, they say is the world of the law-abiding turned upside down, and its norms constitute a countervailing force directed against the conforming social order. Sykes and Matza feel that the family of the delinquent will agree with respectable society that delinquency is wrong, even though the family may be engaged

in a variety of illegal activities. They say that a delinquent is partly committed to the dominant social order in that he frequently exhibits guilt or shame when he violates its proscriptions, accords approval to certain conforming figures and distinguishes between appropriate and inappropriate targets for his deviance. A process of justification or rationalization takes place in the delinquent by means of certain techniques of neutralization. The five important techniques are : 1. The denial of responsibility; 2. The denial of injury; 3. the denial of the victim; 4. the condemnation of the crime; 5. the appeal to the higher loyalties. The authors feel that these techniques lessen the effectiveness of delinquent behaviour. Empirical research in this area so far is fragmentary and the results inconclusive.

Social learning theory

That an individual's behaviour is to be considered only against the background of social milieu has been accepted as fact by every social scientist. This is due to the compelling evidences accumulated by investigations from different disciplines. Especially, the studies in the field of social learning (Bandura, 1962) are important in stressing the influence of environmental factors on social learning. The studies on social learning essentially stress that symptomatic behaviour is to be viewed not as emotional disease manifestation but as learned reactions which can be modified directly by the provision of appropriate models, and by the manipulation of response reinforcement contingencies. The studies of Bandura and Walters (1963) emphasise the role of imitation and vicarious rewards in explaining social learning process. Their theory is particularly demonstratable in the case of aggressive behaviour (Bandura, 1962).

The social learning theories serve adequately to explain the different patterns of behaviour as related to parental behaviour in child rearing context. Deprivation of adequate human needs in the early environment of individuals has its marked impact on social and personality development. The pervasive emotional tone of early family environments is found to have greater consequence for subsequent development of children.

From the point of view of social learning theory, the various findings obtained by different investigators on delinquency regarding social conditions assume greater importance (Glueck and Glueck,

1950). The social psychological conditions of family such as broken home, cohesiveness, relationship among Juvenile's parents and siblings point out the lack of adequate modelling due to faulty social environment of delinquents.

Socio-economic Theories

The important factors contributing to delinquency seem to be low status in the social class system, educational deficiency, poverty, inadequate or broken home background, bad neighbourhood and large family. These adverse factors occur in clusters and tend to interact to make a very potent crime producing situation.

Gold (1963) has stated that parents of low status are at a disadvantage in trying to exert control over their sons and that factor aggravates the tendency of their sons to react to social frustration in a rebellious and delinquent fashion. Therefore the parent's occupation, educational level and their income are considered important social factors in steering the youth towards or away from delinquency.

One of the prominent features of a delinquent is poor educational attainment. West (1967) feels that poor educational attainment is not due to lack of intelligence but may be due to lack of opportunity. Although free education is provided, the fact remains that uncouth children coming from poorer homes are unpopular with teachers, not encouraged by parents to do well in school, and they play truant.

Financial hardship plays another prominent role in producing crime. Financial limitation according to Winslow (1968) interferes with the individuals in making satisfactory social adjustments. The need for minimum requirements in order to maintain his status with his reference groups acts as a precipitating factor in producing delinquency.

West (1967) has considered bad neighbourhood to contribute to crime and delinquency. He has stated that delinquency is more prevalent in towns than in small villages because of the densely populated industrial areas and slums inhabited by poverty stricken families, accompanied by illegitimacy, immorality, alcoholism and disease. Children coming from broken homes are said to become

more liable to delinquency than others (Robison, 1961). Usually breaks are caused by parental desertion or separation due to divorce or death. It has been pointed out by West that broken homes lead to lack of attention by the parents to their children which in turn increases the proneness to delinquency.

Ferguson (1952) has linked size of the family to other social factors like poverty and over crowding. When there are many members in the house, a worker's earnings may be insufficient which in turn may lead to both physical and mental deprivation and truancy in school.

These adverse social factors cluster together in producing delinquency. The school and mass media are also considered as individual factors contributing to delinquency. Robinson (1961) has pointed out that delinquency increases due to lack of discipline at school and makes the child a truant. Mass media like the press, the movies the comics and television communicate a large amount of violence and crime which increases the delinquency proneness in children.

A Psycho-Social Approach To The Problems Of Delinquency

The analyses presented so far essentially bring out the importance of different dimensions of the problem of delinquency viz., constitution, cognition, personality, motivation and social conditions. Consensus is seen in the modern literature with regard to the interaction of these varied aspects, (Eysenck, 1970); Cortes and Gatti, 1972). Eysenck (1957, 1970) who emphasise the genetically endowed inhibitory potential which determines the conditionability as primary source of behaviour attest the role of social conditions thus :

“We have argued that conscience is a conditioned response and we have also argued that extraverted people because they condition poorly will, on the whole, tend to have weaker conscience than introverts, who condition extremely well. This argument however makes an unwarranted assumption; it assumes that all people extraverts and introverts alike, will be subjected to an identical system of conditioning or indoctrination. Now it is patently untrue, and we must take up the question of determining what conclusions would follow from a more complicated and realistic of state of

affairs, where different degrees of conditioning are administered to different people...we know for instance, that in middle class families there tend to be a much greater stress on moral and social behaviour, and firmer control over aggressive and sexual models of conduct whereas in some working class families, far from frowning upon aggressive conduct and applying conditioning methods to suppress it, there is rather a tendency to encourage it and to take pride in the prowess of the growing boy. We also know that there are considerable differences in the child rearing practices of different nations. There is, for instance considerably more stress on social conditioning in England than there is in the United States where there has been a very marked tendency toward what might be called parental abdication of responsibility; that is there has been a tendency for American parents to take some of the psychoanalytic and Freudian concepts of *laissez-faire* policy too liberally. It is this, rather than any hypothetical differences in conditionability between Americans and English people, which may be responsible for the differences in crime in the two countries (Eysenck, 1970, p. 144-46)".

The approach in terms of interaction of different correlates of behaviour is being increasingly recognised in the field of delinquency and crime. The formulation of a biopsychosocial approach to delinquency and crime by Cortes and Gatti (1972) may be mentioned as an example. In the words of these authors:

"Criminal and delinquent behaviour are the result of a negative imbalance, within the individual in the interaction between (a) the expressive forces of his biological and Psychological impulses and (b) the normal life forces of familial, religious and socio cultural factors." (Cortes and Gatti, 1972, p. 351)

The Present-Study. Its Approach.

It is important for any serious researcher in this field to explore a wide range of variables in order to explain delinquency as an anti-social behaviour. In fullest recognition of this view the present study

has sought to include a number of variables from different aspects of the individual and to relate them to delinquency. While it is true that many of the variables studied in the present context like Intelligence, Extraversion, Neuroticism, Psychoticism, Suggestibility and Level of Aspiration have been already explored for their relationship with delinquency, the present study has maintained its identity by choosing a few other aspects, which have not been studied in relation to delinquency. For example, in this study attempt has been made to study the divergent aspect of intelligence by a creativity test (Wallach and Kogan, 1965). Similarly application of Cantrill's (1960) ladder test to delinquents may also be mentioned as new ventures.

The present investigation can claim some originality in its choice of Cognitive Dissonance and Semantic Differential to study the problem of delinquency. These two tests may need some elaboration at this stage.

Cognitive Dissonance

The theory of Cognitive Dissonance (Festinger, 1957) forms the basis of a new thinking "that the grass is usually not green on the other side of the fence and that grapes are sourest when they are in easy reach" (Festinger, 1962). Cognitive Dissonance is akin to conflict but differs from conflict by its cognitive motivational element. It refers to the strivings on the part of the individuals to maintain self consistency in their cognitive structuring of the world in the face of new changes induced in the environment. Thus dissonance theory essentially emphasises the efforts toward cognitive restructuring of the individual by himself when new information and knowledge about the environment affect the original structuring. The knowledge of having acted in a way which would not be expected to follow from one's cognitions causes a cognitive imbalance and an accompanying uncomfortable state. This state is described by Festinger (1962) as Cognitive Dissonance. Dissonance thus is regarded as a drive state which motivates the acquisition of dissonance reducing conditions.

Dissonance is an inevitable consequence of decision. Imagine a situation of a person who has carefully weighed two reasonably attractive alternatives and then chosen one of them. Such a decision

can be considered as irrevocable as far as our practical purposes is concerned. Following such a decision it is true that the information the person has concerning the attractive features of the rejected alternative and the possible unattractive feature of the chosen alternative would become inconsistent or dissonant with the knowledge that prompted him to make the decision. Of course it is also true that the person also knows many things that are consistent or consonant with the choice he has made, which is to say all the attractive features of the chosen alternative and unattractive features of the rejected ones. Nevertheless, some dissonance would exist and after committing to a decision the individual will make efforts to reduce the cognitive imbalance and the accompanying state of affairs.

While the principles of Cognitive Dissonance are gradually being recognised in psychological literature to the present investigator's knowledge no attempt has been made in Delinquency research till this date on this important problem of high psychological significance. Considering the dynamism of Delinquency as sticking to a persistent action pattern against conflicting conditions this neglect with regard to the study of the Cognitive Dissonance of Delinquents warrants immediate consideration.

Principle of Congruity

Like the Cognitive Dissonance the principle of cognitive congruity has also met with wider recognition in the hands of theories which emphasis cognitive balance. Osgood and Tannenbaum (1955) have stated their assumptions of the principle of congruity in their work and have attempted to substantiate them through the use of the technique Semantic Differential.

According to the principal of congruity any cognitive change occurs in the direction of increased congruity with the prevailing frame of references. That is, as Heider (1958) puts it, attitude changes are always made in the direction of greater cognitive balance. The principle of congruity predicts changes in attitude given any degree of difference between the interacting cognitions whereas cognitive balance theorists have hitherto dealt with cognitive changes occurring as a result of interactions of grossly different cognitions.

The Semantic Differential is credited to have marked a break through in the technique of testing the principle of congruity.

The Semantic Differential provides an unique technique of measurement which relates the functioning of representational processes in language behaviour, and serves as an index of the meaning. Meaning like emotion is a relational or process concept. It is because language signs have certain meanings in the psychological sense, i.e., are associated with certain representational processes that they are used consistently in certain situations and consistently produce certain behaviour (in sociological meaning) and this is also the reason, in part at least, that they occur in predictable association with other signs, in messages (linguistic meaning). It is the very consistencies among situations and behaviours in human experiences including the experience of hearing and seeing message sequences that determines the nature of representational processes and hence psychological meaning acquired by the individual. Thus the meanings assigned to different social stimuli by the individual reflects one aspect of his cognitive structuring and assume importance in studies concerning determinants of human behaviour.

Since delinquency is the culmination of a number of psychological and social factors operating on the individual since his childhood, it may be legitimate to expect characteristic cognitive changes in them as a result of a enduring pattern of anti-social experience. The attitudes of delinquents may be anchored to a negativistic evaluative tendency due to the weight of their negative experiences with various social agencies. A study of their evaluative attitude toward a set of social concepts is expected to yield interesting findings with regard to their meaning relating the delinquents' cognitive operation.

RESEARCHES IN THE FIELD OF DELINQUENCY

The scientific approach to the problem of Juvenile Delinquency has been occupying the minds of psychologists, Psychiatrists, sociologists, and criminologist since the end of nineteenth century. The earliest attempts were prompted by constitutional biology and remnants of such an approach are still found in the field of delinquency and crime. Similarly the early investigators have been enthusiastic to identify deficiency in mental development in the form of low intelligence as an important factor in delinquency. New approach to a personality theory of criminal conduct has also been attempted in recent years and investigators have identified a host of personality variables in relation to delinquency. The social conditions contributing to delinquency have received considerable attention in the hands of social scientists. The contemporary trend is to stress not single factor but several factors to account for delinquency.

Physique and Crime

Beccaria (1764) may be considered as the founder of criminology as a separate discipline. Beccaria championed the theory of free will and its corollary that each individual is morally responsible for his acts. He was of the opinion that the criminal engages in crime because of the anticipation of pleasurable consequences and his suggestion for prevention was to impose painful panalties. Cesare Lombroso (1876) was the first one to attempt explanation of criminal conduct in terms of empirical studies. Lombroso studied several criminals in the prisons and held that a criminal is an atavistic phenomenon, a biological throwback. He claimed to have discovered a

criminal prototype in term of physiological characteristics such as protruding ears, hair, sparse beard, enormous frontal sinuses and jaws, square and protruding chin, and broad cheek bones. His enthusiastic disciples have extended Lombrosion thinking to identifying criminal subgroups with specific physical traits for thieves, murderers, etc.

Lombrosian approach in term of gross physical features has given way subsequently to precise anthropometric definitions in term of body build. However Goring (1919) who made extensive study of 3000 thousand recidivists in England using anthropometric data on skull and face found no evidence for a criminal "physical" type. He concluded that no physical characteristics can be accepted as signs of the criminal or any other sub groups of criminals. Goring suggested intelligence to be an important factor differentiating the criminal from the non criminal.

In the 1920's endocrine glands were thought to hold the key for the problems of delinquency. Schlapp and his associate Smith (1924) held such opinion. At the Boston Institute of Endocrinology the possibility of a positive relationship between excess glandular functioning and delinquency was tested in 100 women inmates from the Massachusetts Reformatory. The results of the study however did not support the theory (Rowe and Waters 1935).

Another set of theories in early days stressed the positive relationship between body structure and delinquency. Hooton (1939) made a study using thousands of reformatory inmates convicted of different types of crimes as subjects measuring their body configuration using hundreds of anthropometric tests. He found criminals with pyknic body build to commit more of crimes like rape, and other sex offences, and assault than of murder, while the criminals with leptosomatic body build commit more of murder and robbery than crimes such as burglary, assault, rape and other sex offences.

Sheldon *etal* (1949) have made intensive study of the constitution of hundreds of delinquent youths as compared with thousands of college students. They found that delinquents have a distinct endomorphic-mesomorphic body build. The students on the other hand, were found to be characterised by ectomorphic rather than either endomorphic or mesomorphic body build.

Epps and Parnell (1952) have studied hundreds of institutionalised young women between the ages of 17 and 21 and compared their body configuration with hundreds of university women of the same age. They report delinquents to be heavier in body build and more muscular and fatty than the university women.

Sheldon and Glueck (1956) have made anthropometric analysis of hundreds of matched pairs of delinquents and non-delinquents. They report that absolutely and relatively the delinquents are mesomorphic in constitution (muscular), containing a much higher proportion of all mesomorphic types than the non-delinquents and a far lower proportion of ectomorphs (linear and thin). They also hold that ectomorphs, endomorphs (round and plump) and balanced types are decidedly subordinate among the delinquents. In the same way Gibbens (1962) has studied hundreds of institutionalised delinquent boys aged between sixteen to twentyone. The results of his study indicate that nearly all the delinquents to be more of endomorphic-mesomorphs as compared to college students, who had less of these physical traits.

In recent years Cortes and Gatti (1972) have somototyped one hundred institutionalised delinquents and compared them with another hundred of non-delinquents using Parnell's method of somototyping. On the basis of the results these authors assert that there can be little doubt that mesomorphy is a variable in delinquency and crime and that mesomorphs possess a greater delinquency potential.

Intelligence and Delinquency

The contention that delinquency and crime are related to mental deficiency has received some support from the early investigations in this area. Healy and Bronner (1926) were the pioneers who applied measures of intelligence to understand delinquency. These investigators held that 37 percent of the delinquents tested by them in two cities in U.S.A were of subnormal range in intelligence. Slawson (1926) has extended this investigation controlling other variables. His results show that delinquents achieve a lesser score on verbal intelligence while no relationship is found between non verbal intelligence and mechanical aptitude. However, Butcher and his coworkers

(1929) have found a small difference favouring delinquents in their study. They also report that spread of the scores resemble those of non-delinquents belonging to the same socio-economic strata.

Sutherland (1931) has analysed 350 reports of different intelligence tests based on 1,75,000 criminals and delinquents. He reports that the proportion of delinquents diagnosed as feeble minded decreased from more than 50 percent in the average study made in the period 1910-1914 to 20 percent in the period 1925-28; primarily due to alterations in the methods of scoring the tests. Sutherland also contends that the wide variations in the results of tests given during these periods are much more likely to reflect the methods of the testers than intelligence of the criminals. He also reports that when allowance is made for the selection involved in arrest, conviction and imprisonment the distribution of intelligence scores of the delinquents is very similar to the distribution of intelligence scores of the general population. Similarly it has been found in studies of groups of feeble minded persons that the incidence of feeble mindedness is not greater among delinquents than non delinquents. It has also been reported that feeble minded prisoners have about the same disciplinary records in prisons as compared to other prisoners, and feeble-minded offenders are successful on parole about as frequently as other parolees.

Zeleny (1933) equating the procedures of different intelligent testers, concluded that the ratio of delinquents and general population in respect to mental deficiency was only slightly in favour of normal population. Chassell (1935) has analysed the literature on the relation between morality and intellect. Her conclusions also generally lend support to the view that the relationship between intelligence and morality is only low positive.

Weiss and Sampliner (1944) have made a study of 189 adolescents between of ages of sixteen and twentyone and who were all first offenders. Their results show that the distribution of intelligence follows the distribution in the general population.

A few investigators have obtained interesting differences among delinquents indulging in different types of criminal conduct. McClure (1933) has analysed the scores on Stanford Binet Intelligence

Test of 600 delinquents brought before the Juvenile court. He reports that the average Intelligence Quotient of the delinquent boys to be slightly less than that of non delinquent boys, but three points higher than the mean I.Q. of the delinquent girls. It is also reported by this investigator that those who were charged with slapping, hold up and assault have the lowest level of I.Q. among the groups compared. The findings of the study by Merrill (1947). also show that delinquents possess different levels of I.Q. Those who indulge in such cases as forgery and malicious mischief have I.Q. above average of the non delinquents while those who indulge in acts of sex, truancy, vagrancy and assault possess intelligence lesser than that of non delinquents. The results of the study has also shown that no difference in I.Q. exists between delinquents who are caught for stealing than non delinquents, Glueck and Glueck (1950) have also reported conclusions arrived at by using Rorschach test concerning dynamic aspects of intelligence. The delinquents have been found to resemble non delinquents in originality, creativity, banality, intuition, phantasy, and over verbalising intelligence. The delinquents have been found somewhat less in the power of observation and to show less potential capacity for objective interests than the non delinquents. It is also found that delinquents are unrealistic thinkers, lacking in common sense and are found to be unsystematic in their approach to the mastery of mental problems on tasks. These investigators conclude by suggesting that the differences between the delinquents and non delinquents are concerned with intellectual tendencies that are interwoven with emotional dynamics and that they are therefore of a kind that are likely to be involved not only in the ability to cope with school tasks but also in the general process of socialisation or adjustment.

Kiyonage, Kenji (1973) compared delinquency rates among 278 mentally retarded boys (IQ of 70 and below) and 174 borderline and normal boys (IQ of 71 and above). Comparisons were made in terms of home stability, economic status of family and educational level of the parents. The general delinquency rate was found to be lower among the mentally retarded than among the borderlines and normals. Similar results were reported by Segal, (1973) from his study in England.

Wilgosh and Paitich (1974) study of 135 male and 51 female 8-17 — 16.06 year olds undergoing assessment at a juvenile court clinic, indicated no significant differences among various offenders in intelligence as measured by Standard Progressive Matrices. Geetha Adinarayanan (1975) who studied different kinds of women prisoners found that women prisoners scored significantly low in Standard Progressive Matrices, compared with women-non prisoners.

Delinquency and crime and Dimensions of Personality :

Eysenck (1964, 1970) has held that extraverted people tend to condition less well than introverted ones and hence are prone to behave in an anti-social fashion and that high degrees of anxiety or neuroticism tend to act as a drive strongly reinforcing the extraverted or introverted tendencies favouring or disfavouring antisocial conduct. A number of empirical studies have attempted to verify whether antisocial conduct, particularly crime, would be found more frequently in people whose personality placed them in the high Extraversion high Neuroticism quadrant. These studies have been adequately reviewed by Eysenck (1970) and Hoghugi (1970).

S. B. G. Eysenck (1961) has studied one hundred unmarried mothers in various moral welfare homes as compared to one hundred married mothers in the maternity wards of a hospital. She predicted that the unmarried mothers in contrast to married mothers would fall into the Psychopathic quadrant (high Neuroticism high Extraversion quadrant) since sexual promiscuity can be considered as violation of social rules. The results were exactly on the lines predicted. In a similar study Fine (1963) studying hundreds of subjects has found support to the contention that traffic violators would be more extraverted than others.

Singh (1967) has studied one hundred prison inmates as compared to one hundred normals with Maudsley Personality Inventory. He found prisoners were more neurotic and more extraverted than the normals.

A few studies have directly investigated the personality of prison inmates and have obtained results supporting the contentions of Eysenck (1970). Syed (1970) who studied a hundred women

criminals committed to a prison, found criminals to fall predominately and significantly into the Psychopathic quadrant having high scores on Extraversion and high scores on Emotionality. Similarly Warburton who used objective tests and Cattell personality scales to study personality variables of two thousand inmates of a prison found the hardened prisoners to have elevated scores on scales grouped under Extraversion and Neuroticism. Andry (1960) who studied the relationship between personality and recidivism, reports that recidivists are characterised by emotional disturbances, tough mindedness, extrapunitive behaviour and immaturity. S.B.G. Eysenck and Eysenck (1970) have compared 603 male prisoners on Extraversion and Neuroticism assessed by the personality inventory with 534 married men, 423 students and 185 unmarried industrial apprentices. The results have moderately supported the hypothesis that prisoners will have higher Neuroticism (N) scores and only weakly supported the hypothesis relating to Extraversion. Chockalingam (1972), Mani (1974) and Geetha Adinarayanan (1975) studied recidivists, murderers and thieves and women prisoners (murderers and thieves), respectively belonging to Tamil Nadu. Chockalingam (1972) studied the personality variables using Eysenck's 'The Personality Inventory' and also 'Psychopathic Deviate Scale of Minnesota Multiphasic Personality Inventory'. His results show recidivists to be characterised by high Neuroticism and high Psychopathic Tendency, but has failed to show a significant difference between the two groups in Extraversion. Mani found murderers to be more extraverted and more neurotic than those who committed thefts. Geetha Adinarayanan's (1976) Study supported Eysenck's view regarding Neuroticism and not regarding Extraversion. Gibbens (1962) has studied the relationship between personality of delinquents using two hundred Borstal boys of sixteen to twentyone years of age as subjects. In addition to intensive psychiatric investigation, Gibbens administered the MMPI and Porteus Maze Test to the subjects. He found Psychopathic Deviate Scale to give best discrimination between the experimental and control groups. The results also showed a positive relationship between Porteus Maze score for contraventions of the instructions and criminality.

A series of studies have been done on personality make up of delinquents employing Eysenck's classification of personality.

Shanmugam and Sundari (1960) have studied 25 delinquent boys and compared them with a group of non delinquent boys using Eysenck's Personality Inventory. Their results show the delinquents to be less extraverted and more neurotic than the control group of boys. Millman (1966) has compared 700 delinquent boys of various ages with that of a standardised sample on the Junior Eysenck Personality Inventory (JEPI). He reports that delinquent boys are significantly more neurotic, more introverted and had a greater tendency to lie. In a similar way Berry (1966) who studied 335 offenders on JEPI reports that his sample was more introverted, more neurotic and had greater though inconsistent tendency to lie. The same investigator has compared 500 delinquents boys on High School Personality Questionnaire (H.S.P.Q.) of Cattell (Berry, 1966). The results fail to show that delinquent boys are more extroverted, anxious or neurotic than normals. Hoghughi and Forrest (1967) have studied one thousand delinquents using JEPI. The results show that all the delinquent boys are significantly more neurotic than normal samples. However, on extraversion, all delinquent boys with borderline exceptions of fourteen and sixteen year olds are significantly more introverted than the normal samples. The investigators (Hoghughi and Forrest, 1970) have compared the scores of one hundred Approved School boys and one hundred matched controls on Junior Maudsley Personality Inventory (JMPI). The results have failed to disclose any significant difference on the two factors of Extraversion and Neuroticism.

Clarke and Martin (1967) have compared matched samples of fifty nine absconders with non absconders on second order factors of Extraversion derived from H.S.P.Q. The results have failed to yield significant differences between the groups compared on any of these factors.

Hoghughi and Lewis (1968) have compared 132 delinquent boys referred for psychiatric assessment with a control sample matched for age and IQ. The results showed that the psychiatric group characterised by behaviour problems to be significantly more introverted, more neurotic and show less tendency to lie.

Wells, Forrest and Hoghughi (1968) have compared the performance of 49 bright delinquents with that of 94 dull delinquents on the

JEPI. The results disclose that dull boys are significantly more introverted and have a significantly higher lie scores than bright boys. The two groups are also found not to differ in neuroticism.

Martin and Clarke (1969) have compared 75 difficult and persistently absconding delinquents with 98 non absconders matched for age, intelligence and reading age, on MMPI. The results show that the two groups are not significantly different on either extraversion or neuroticism. The results also showed that Gibson spiral maze which is claimed to be a measure of extraversion has failed to discriminate the groups. Further the results showed no significant correlation to exist between extraversion and persistence in absconding tendency.

Andry (1960) who studied the relationship between personality and recidivism reported that recidivists are characterised by emotional disturbances, tough mindedness, extrapunitive behaviour and immaturity.

Heston (1966) has studied children born to hospitalised schizophrenics who were removed immediately after birth and raised in foster homes. The results show that nine out of fortyseven of these children were diagnosed as sociopathic personalities, showing anti-social behaviour of an impulsive, illogical nature, with long police records.

Wilgosh Paitich, (1974) studied 135 male and 51 female delinquents in the 8 to 17 age groups classifying them into various offences. They used Pronfenbrenner parent behaviour questionnaire, Parental Aggression scale, Standard Progressive Matrices and Achievement Test. The results indicated that younger subjects reacted more violently against their environments committing such crimes like theft and assault where as older delinquents reacted by rejecting the surroundings through vagrancy or truancy.

Recently Eysenck (1970) has implicated psychoticism in the causation of criminality. Since the patterns of traits observed in psychotics and criminals have close similarity Eysenck contends that criminality will have a close connection with Phychoticism. A few empirical studies are available in literature on this problem.

A study by Eysenck (1970, 1977) based on 1000 normal male subjects, 179 adult male prisoners, and 56 neurotics shows that the

prisoners have scores almost identical on both neuroticism (N) and Psychoticism (P) with actual psychotic patients of whom there were 156 males and 154 females who were all certified. Similar results supporting the hypothesis that prisoners will have higher score on Psychoticism have been obtained by Eysenck and Eysenck (1970) in their study of 603 prisoners with multiple control samples of married men, students and industrial apprentices.

Mani (1974) studied adult murders, theft cases and non criminals taking 50 in each sample. He found murderers to be more extraverted; more neurotic and more psychotic than theft group and theft group more extraverted, more neurotic and psychotic than non criminals. Similar findings are reported by Geetha Adinarayanan who studied 100 women prisoners in comparison with 100 women non prisoners. More recently Eysenck has revised the concept of extraversion to indicate that has two factors of sociability and impulsivity. Using this concept Sunita Sodhi (1978) found criminals to be more extraverted and more pschopathic than control samples, thus supporting Eysenck's theory. Similar results were reported by W.P. Singh (1967).

Delinquency, Suggestibility and Level of Aspiration

Only few studies on level of aspiration and suggestibility as applied to delinquent population are found in literature.

Cushing and Ruch (1927) have compared 50 delinquent girls with 50 controlled non delinquent girls on suggestibility. The results show a high correlation between delinquency and suggestibility.

Beckman (1933) has attempted to study the relationship between delinquency and suggestibility using case histories and observations. He found that suggestion succeeds best with individuals with low intellectual capacity, cycloid personality types and the socially voluptuous. The multidimensional nature of suggestibility has been clearly revealed in the study by Glueck and Glueck (1958) on delinquents. These investigators have compared hundreds of delinquents with non delinquents on suggestibility assessed on Rorschach responses and also by psychiatric interview. The results show no significant difference between Rorschach indices of suggestibility, while a significant difference has been found in suggestibility assessed through the psychiatric interview. The results show that delinquents to be far more suggestible than non delinquents, 59.8 percent of them being easily

swayed by appeal to their feelings, even though against their better judgement, as compared with 26.3 percent of the non delinquents.

Level of aspiration

That delinquents are characterised by greater motivational rigidity has been found in a study by Shanmugam and Govindarajan (1967). These investigators have studied 50 delinquent boys as compared with 50 non delinquent boys using an ingenious test of aiming a rubber ring on to an iron rod, from a distance chosen by the subjects. The results of the study show delinquents to have low level of aspiration and low level of achievement.

Rajeswari (1967) as studied 50 delinquents and 50 non delinquents using Rotters level of aspiration board. The results show that delinquents have significantly low goal discrepancy, low aspiration height, low goal tenacity, more typical and atypical shifts and more rigidity in their level of aspiration behaviour as compared with controlled group.

Criminal Tendencies and Principle of Congruity

There are a few studies related to Semantic Differential and Self Ideal Congruity to criminal tendencies. Masters and Tong (1968) have attempted to compare the Semantic Differentials of 20 non-recidivists in Borstal schools with that of 20 non offender control group. These investigators attempted to verify certain hypotheses based on pathogenic family relationships. The results reveal that the three groups differ significantly in their Semantic Differentials related to sets of words, particularly concerned with home. However the differences were significant only in the case of evaluative dimension. The recidivists rated such words as 'home' 'father' 'me' 'sex' 'love' 'hate' 'school' and 'work' low as compared to other words.

Self Concept and Delinquency

Rackless and his associates (1956) wanted to know why some juveniles who live in high delinquency areas appear to develop a resistance to delinquent behaviour, even in the most adverse social setting. The sixth grade teachers in a high delinquency area school in Ohio, U.S.A were asked to nominate children (12years) who would never come to court. They were named as 'good boys' or the highly

'insulated ones'. These boys were administered the Delinquency Proness (DE) scale and Social Responsibility (Scale SRE) from Gough's California Personality Inventory. The boys and the parents were interviewed and the boys were asked questions about concepts related to him, his family and his interpersonal relations. The results obtained for the 'good boys' are, 1. Low scores on DE scale and high scores on RE scale 2. 'Self evaluations' were law abiding and obedient 3. Lack of resentment to parental supervision and 4. The families were maritally, residentially and economically stable. From this Reckless and his associates concluded: "Insulation against delinquency is an on going process reflecting internalization of non delinquent values and conformity to the expectations of significant others".

Reckless, Dinitz and Kay (1957) when distinguishing the potential delinquent from the non delinquent have stressed that the appropriate concept of self is the basic component that steers the person away from or toward delinquency. Later Reckless, Dinitz, Scarpitti and Murry (1960) conducted a follow up study of the 1956 research. The 'good boys' who were taken as samples four years ago were not reconsidered because of the small size of the sample. However the teachers were again asked to nominate those boys who would have difficulty with law. The nominations were checked with the juvenile court records. The tests were administered and the parents were interviewed. The results confirmed the previous findings. Similar investigations were done with 'bad boys' or the potential delinquents' (Dimitz, Reckless and Kay, 1958) (Dimitz, Scarpitti and Reckless, 1962). From their findings Reckless and his group concluded that a good self concept undoubtedly a product of favourable socialization, weans the slum boys away from delinquency, while a poor self concept a product of unfavourable socialization gives the slum boy no resistance to deviancy, delinquent sub culture and delinquent comparisons. Nye (1958) has also mentioned about certain internalized indirect controls in preventing the juveniles from delinquency.

Tangriand Schwartz (1961) quoting the studies made by Reckless and his coworkers, have stated that if the same research could be undertaken in a more sophisticated way including not only the self variable but also structural and cognitive variable the interaction

effects could be properly understood which would more accurately indicate the role of self concept with reference to juvenile delinquency.

Sinha and Singh (1968) have compared the self concept of one hundred criminals in a jail with that of one hundred non criminals on a self rating inventory consisting of five favourable and five unfavourable and five social traits of personality. The results show that the criminals have lower self esteem than the non criminals and the criminals have a strong tendency to perceive themselves as possessing more undesirable traits. The results also revealed criminals to have more social conflict than the non criminals. Conrad (1972) in his study on the institutionalized juveniles found instable self concept to be one of the main reasons for delinquency.

Stratton and Terry (1968) after reviewing the investigations of Reckless et al, feel that components of the self strength, act as an inner containment against deviancy and conversely, the poor concept of self is indicative of weak inner direction which fails to deflect the boy from deviancy. Singh W.P (1970) has studied the differences in self concept of the criminal males and criminal females from a jail population. The results of the study showed criminal female to have lower subjective and objective self than male criminals. The indices of discrepancy in interpersonal relations and social conflict ideals are higher in criminals females than in criminal males. Conrad (1972) in his study on the institutionalized juveniles found instable self concept to be one of the main reasons for delinquency. Marshall (1973) constructed a delinquency proneness scale similar to that of Reckless and Dinitz and applied it to a British sample. From the rules of his study he concluded that negative self concept plays a dominant role in delinquency proneness.

Delinquency and Social Conditions

There are number of studies regarding social conditions of delinquency. These studies show how the pathogenic social environment contribute for delinquency.

Hearly (1913) studied one thousand cases of delinquents belonging to Chicago and found home to be a major factor in delinquency in 19 percent of the sample and a minor factor in 23 percent. The study also reveal 22 percent of the entire number of major and minor fac-

tors to refer to home conditions and 23 percent of delinquents studied, come from homes having extreme lack of parental control. The same conclusion is found in another study by Healy and Bronner (1936) using one thousand cases of delinquency. The results of the investigation by Healy and Bronner further show that not less than 91 percent of the delinquents give clear evidence of unhappy emotion provoking family experiences and rejection, deprivation of affection, insecurity and lack of understanding and affectional relationship.

Burt (1944) has studied a large group of delinquents and has concluded from the results that important differences exist between delinquents and non delinquents in home conditions. Burt reports defective discipline to be present in 6.9 times as frequently in the homes of delinquents as of non delinquents and to appear in the forms of parental indifference to discipline, lack of discipline due to absence of parent, disagreement about the control of the child and overstrict discipline. These findings of Burt are confirmed by the studies of Shanmugam (1946) and Merrill (1947)

Glueck and Glueck (1950) have extensively studied the social conditions of delinquents as compared with non delinquents. The results show the delinquents' home to be characterised by poor conduct standards, as judged by the presence of drunkenness, criminality and immorality. The conjugal relationship between the delinquents' parents, remain to be poor often resulting in a open breach. The delinquents' homes are found to be less cohesive with no expressive loyalty to blood group and less sense of security. The incidence of broken home is more among delinquents than among non delinquent groups. The results also show that the delinquent boys are deprived of affection by their father, mother, brothers and sisters and they in turn, did not have as warm a feeling toward their fathers and mothers as did non delinquents. However no date has been reported on the feelings of delinquent boys toward their brothers and sisters. The parents of the delinquents have been found to have lesser concern for their welfare. The results further show that the delinquents have, violent dislike for school, less academic and vocational ambitions, poor relationship with schoolmates, and to come from underprivileged sections of the community. The delinquent boys also have been found to have an urge for vicarious excitement for movie picture thrillers.

That delinquents are affected by movies has also been well brought out in an earlier study of Blumer and Hauser (1933) who studied 386 delinquent boys and 252 delinquent girls using autobiographical data. Similar results are obtained by Shrimethy (1957), Choudhry, (1965) Ganguly and Maitra (1966) in India.

Occupational Status and Delinquency

Gorden Rose (1954) found occupational status of the parent to be one of the most important contributing factors in delinquency. He found that forty percent of Borstal youths who were released during the war had fathers in unskilled or temporary occupations. In a study by Shanmugam (1946) revealed that both delinquents and criminals hailed from occupational groups involved in unskilled and semiskilled jobs. He also found that 22 percent of the people belonged to unemployed groups.

Educational Retardation and Delinquency

Eilenberg (1961) in a study of a sample of boys in a London remand home for juvenile delinquents found that sixty four percent were retarded educationally by three years or more. Gold (1963) studied delinquents and non-delinquents, matched for social class and found the delinquents to be worse than the non delinquents in scholastic performance. This study showed that the delinquents had a very low level of expectations and aspirations regarding their future which in turn is due to lack of encouragement and affection from the parents.

Poverty and Delinquency

Poverty in the sense of lack of basic necessities has undoubtedly been an important concomitant factor in delinquency according to many researchers in this field. Bogot (1941) in study of delinquency in Liverpool before the war, found a very large percentage of delinquents to be extremely poor.

Glaser and Rise (1959) in an extensive study over a twenty five year period in the United States, found high positive correlations between unemployment which leads to poverty and property crimes. This is because the lower classes are always hit by unemployment and it is the off-spring of the lower classes who experience acute handicaps

which cut them off from the benefits of the affluent society. This in turn steers the children towards crime.

Bad Neighbourhood

Shaw et al (1952) in a classic survey of juvenile delinquency rates in the various zones of Chicago city, identified the characteristics of the high delinquency neighbourhoods. They found that the inner most circle had a delinquency rate more than five times than that of peripheral zones, with intermediate zones showing a steady increase as one approached the centre. The authors have pointed out that distribution was due to the fact that the centre was over crowded and the prosperous families moving to the outskirts of the city.

Broken Homes

Gittens (1952) from his study of delinquents found that in more than half the cases either both or one of the parents were dead, or else they were separated, deserted or divorced, the latter categories being much more numerous. In only one third of the cases did the boys come from apparently normally constituted parental homes. Banks (1965) found that in a sample of 300 boys in detention centres, forty four percent were from broken homes.

Size of the Family

Investigators on delinquency agree that a large number of children in a family contributes to juvenile delinquency. Ferguson (1952) from his study of 1349 boys found that of those from families of not more than four children only eight percent were convicted and of those from families of more than four, sixteen percent were convicted.

Trenaman (1952) found similar results from his sample of 700 delinquent soldiers. The size of a delinquent's family was twice as the ordinary soldiers. Size of the family is strongly linked with poverty and over crowding. It must be stated here how consideration of anyone of these social background factors leads to the other factors and that from the conglomeration of these social handicaps (labouring class, poverty, overcrowding, bad neighbourhood, poor schooling, broken home and large family), it seems futile to single out anyone as the prime social factor contributing to juvenile delinquency.

Jeffery and Jeffery, Amos and Welfare, (1967) criticised that in many studies and theories of delinquency environmental conditions are ignored or uncontrolled. They have stated that a family reared as a cohesive unit will transmit to its members many behavioural patterns including speaking and eating, but such patterns are learned not inherited. They have stated that even the Gluecks have not discussed the process of relating behaviour to body build. Criticising biological theory of delinquency Jeffery and Jeffery state that it regards behaviour as a product of heredity alone, whereas modern biology teaches that any trait or process is a product of heredity interacting with environment. Cortes and Gathi (1972) have studied the family environment of 200 delinquents using a semi structured questionnaire. The results show that the relationship between delinquents and their parents especially between father and delinquent to be disrupted. In most cases of delinquents, the father is not present due to separation, desertion, divorce or death. The results also show that delinquent boys are definitely much less controlled and supported by their father than the non-delinquent boys.

Evaluation of the Studies Reviewed

The multifarious studies reviewed thus far bring out the different facets of delinquency research. However no pretention is made to have reviewed every investigation done on the subject. Such detailed reviews can be found in the works of Burt (1944), Boarnes and Teeters (1945); Sutherland and Cressy (1955), Eysenck (1970) and Cortes and Gatti (1972). Shanmugam (1972) has documented the different studies done in this field in India. This review has been specifically attempted from the point of view of important theoretical premises related to well established factors such as personality, cognition, motivation and social environment.

The studies on constitutional psychology have yielded interesting results indicating that individuals indulging in criminal conduct are more often characterised by mesomorphy than be expected in a chance fashion. This finding permits us to make a hypothesis connecting constitution, delinquency and psychological characteristics. According to Sheldon (1957) typical characteristics can be attributed to the different constitutional types and hence it needs only, to make a logical leap to educe certain relationship between those characteris-

tics attributed to mesomorphy and delinquency. Mesomorphy has been attributed to go with somatonia characterised by assertion, love for domination and power, liking to take risks and chances, physical courage, aggression and psychological callousness, ruthlessness, unrestrained behaviour, indifference to pain, generally noisy and extraverted pattern of behaviour.

The studies on cognitive aspects of delinquents and criminals clearly demonstrate that proneness to crime is no longer to be considered as due to deficit intelligence. However the studies have clearly shown a few specific differences to exist in regard to certain specific factors of intelligence relating to objective ways of thinking. They generally suggest that while the delinquents and criminals show similar distribution of intelligence, they differ in a few factors of intellectual capacity. This point is well brought out in the works of Glueck and Glueck (1950) who have unearthed specific differences, related to a few factors of intelligence between their delinquent and non delinquent subjects who have been matched in terms of I.Q. on a battery of intelligence tests. Even in studies where a difference is found in intelligence between delinquents and non delinquents it has become customary to attribute the differences to other factors related to samples than to possession of delinquency (Cortes and Gatti, 1972). In this way, the studies on intelligence among delinquents and criminals impress us with the fact that it is erroneous to ask the question whether the delinquent is inferior in intelligence? But the question may be reworded to ask whether the delinquent is inferior in specific factors of intelligence.

Eysenck (1970) in recent times has applied a few theoretical premises from his personality theory propounded earlier (1955, 1957) to account for the general criminal conduct. The propositions of Eysenck theory have stimulated a great deal of research in the fields of crime and delinquency and the results of these researches either confirmed or infirmed his propositions. Generally these different studies have raised more questions in regard to the subtle principles related to social conditions than to the personality dynamics as advanced by Eysenck.

Among the various variables of motivation only a few have attracted empirical researches in the area of delinquency and crime.

The level of aspiration of Lewin deserve special mention in this context. A few studies available on suggestibility also throw light on delinquent's tendency to react in a particular situation. The literature on these various aspects suggest generally weak tendency in suggestibility on the part of delinquents. It is worthwhile therefore to test this in any investigation.

A few studies available in the literature are on the principles of congruity which may be relevant to the study of delinquency. However, it is to be recognised that these studies were not originally designed to test the pinciple of congruity in delinquents. This is true even in the case of Master and Tong (1968) who have made use of Semantic Differential which is designed specifically to test the principle of congruity by Osgood. In a similar way a neglect is seen in an area of research in Cognitive Dissonance. In view of upsurge of interest in Cognitive motivation theories in recent years the gaps in the application of these theories deserve immediate attention in the hands of any serious research worker in the field of delinquency and crime.

No enlightened social scientist in modern times would subscribe to any specific causative factor for delinquent or criminal conduct. This is because the criminal phenomenon still remains more an iceberg than an unearthed rock. It is important therefore to enquire into as many variables as possible to get an understanding of the springs of criminal behaviour.

The analysis of the various studies in the field of delinquency and crime reviewed in this chapter essentially emphasise that a number of factors viz., cognition, personaltiy, modes of reaction, motivation, and social environment play decisive roles in different combinations in determining the criminal conduct. They also stress that an investigation into an understanding of the psychological factors of criminal behaviour should take into account a variety of specific factors relating to these variables to obtain the best approximation of the true description of the phenomenon of delinquency and crime.

3

DERIVATION OF HYPOTHESES

The Criteria of Delinquency

The Schwendingers (1970) have critically reviewed the various definitions of crime and has concluded that almost all American criminologists today define crime and the criminal by specific or abstract reference to definitions and or sanctions administered by the State. Criminologists in general continue to follow the legal definition of crime (Schwendingers, 1972). Similar trend is noticed even among psychologists, though their definition is wider than criminologists. Eysenck (1970), for example, chooses to define crime as "running a foul of the law and of the social mores generally" (p.130).

The legal definition of delinquency would certainly restrict the scope of the study of the delinquent population per se. It is true that a considerable section of the juveniles indulging in delinquency escape the arms of law. However we can be sure that generally those who have been apprehended and committed to Correctional institution by the state remain to be delinquents. This fact has been confirmed by the findings of a few investigators who have made departure from the usual procedure of studying institutionalised delinquents by attempting to study delinquent behaviour in the general population. The results of their studies are also in conformity with the findings on institutionalised delinquents. Further, seriousness and frequency of delinquent conduct is found to be one major determinant of actions taken against juvenile law breakers in such a study (Nye, 1958). From this it can be inferred that the institutionalised

delinquents represent the most serious delinquents distributed in the general delinquent population. This contention receives further support in the study by Erikson and Empey (1963) who studied 50 high school 'Non delinquent' boys, 50 who had appeared once in juvenile court, 50 juvenile repeaters, and 50 incarcerated delinquents. The results of the findings show that though all the boys studied admitted to have acted in delinquent manner most of which had gone undetected, the officially recognised offenders were found to have implicated in delinquency with greater frequency and the persistent offenders had been involved in the most serious delinquencies. In a similar vein Cortes and Gatti (1972) who defend the operational definition of delinquency in terms of legal criterion contend that "by limiting ourselves to official offenders, we have been studying a group that, as a whole, consists of real delinquents who have committed some of the most serious offences with greater frequency".

Sample of the Present Study

In line with the above considerations the legal definition of delinquency has been adopted for the purpose of identifying samples of delinquents in the present study. The samples of delinquents used in the present context comprise of boys and girls from the Senior Approved Schools in the city of Madras and Chingleput, both in the State of Tamil Nadu. The corresponding samples of non-delinquents were taken from the schools run by the Corporation of Madras. Care was taken to control the variables like economic status and age.

Selection of Variable

In line with theoretical considerations supported by empirical researches in the area of delinquency and crime reviewed in the earlier chapter, it seems relevant to choose Intelligence (convergent and divergent), personality dimensions (Extraversion, Neuroticism and Psychoticism), Suggestibility, Level of Aspiration. Ideal-Actual self congruity, Conceptual Meaning and Cognitive Dissonance as variables to be investigated in the present study, besides the family and community influences on the delinquents.

HYPOTHESES

Intelligence :

Recent studies in intelligence by Guilford (1950, 1969), Getzels and Jackson (1961), Wallach and Kogan (1965) have clearly brought

out the fact that two modes of intellectual operation exist in the field of cognition. These two modes are described as convergent and divergent intelligence in the literature.

Spearman (1904) has advanced his concept of general intelligence on the basis of the findings related to correlations among various physical and mental tests. He has stressed the act of "educing correlates" as the essential function of general intelligence. Of course, the recent topography of the structure of intellect (Guilford, 1959) has clearly shown Spearman's conception of 'g' to have only limited value in accounting for various modes of cognitive operations. However, the mode of operation, viz., 'educing relationship' has been accepted to represent one of the important aspects of convergent thinking. Standard Progressive Matrices (SPM) is based on this aspect which Raven the author of this Test refers to as 'capacity' for observation and clear thinking. This capacity is considered to come under the intellectual act 'g'. Wallach and Kogan (1965) have sought to demonstrate the existence of a cognitive mode that is distinct from general intelligence and cohesive in itself. The instruments of creativity developed by these investigators refer to intellectual operations of divergent nature.

The various studies reviewed in the earlier chapter clearly suggest that delinquents lack logical capacity in their intellectual operations while they have a greater capacity for over verbalising and other related modes of thinking. The author who has dealt with about 4000 delinquent boys and girls individually since 1954, has noted unusual nature of planning and executing crimes by the delinquents. This is another reason for generating hypothesis regarding divergent thinking. In view of these findings it may be hypothesised that

" The delinquents will have low general intelligence than the non-delinquents. The delinquents will have more creativity than non delinquents."

Dimensions of Personality

As has been already cited in the review of literature that the Eysenck's Personality theory has received substantial support in a

number of studies done in this field of crime behaviour. The relevant propositions of Eysenck's personality theory as applied to crime behaviour would run as follows:

1. Propensity to crime is universal but is held in check in most cases by a given person's conscience.

2. This conscience is essentially a generalised set of conditioned responses built up during the childhood and adolescence, according to the rules of the Pavlovian conditioning.

3. This conscience might be expected to be under-developed either through failure of social and family conditions to provide the proper means of developing it or through innate weakness in the person concerned of the mechanism involved in the elaboration of conditioned responses. It is further postulated that;

4. Extraverted people tended, under certain stated conditions to condition less well than Introverted ones, thus making them more likely to behave in an antisocial fashion, and that;

5. High degrees of Anxiety or Neuroticism tended to act as a drive strongly reinforcing the Extraverted or Introverted tendencies favouring or disfavouring antisocial conduct (Eysenck and Eysenck, 1970, p. 226).

From the above argument it may be deduced that antisocial conduct of delinquency would be found more frequently in individuals whose personality placed them in the high Extraversion high Neuroticism quadrant.

Eysenck (1952, 1970) has supplemented Psychoticism as one of the major dimensions of Personality in his theoretical system. Recent studies by Eysenck and Eysenck (1968, 1969, 1970) have clearly demonstrated the possibility of embodying this conception of Psychoticism in the form of personality inventory and to relate it to delinquency. Eysenck has listed out the following traits to characterise this dimension as assessed by factor loadings on the items of the personality inventory developed by him; 1. solitary, not caring for people; 2. troublesome, not fitting in; 3. cruel, inhumane; 4. lack of feeling, insensitive; 5. sensation, seeking, arousal jag; 6. hostile to others; aggressive; 7. liking for odd, unusual things 8. disregard for danger,

fool hardy; 9. making fools of other people, upsetting them. Eysenck and Eysenck (1970) point out that the traits listed above closely resemble those traits often exhibited by criminals and hence delinquents. Further, criminals are considered by Eysenck to share some genetic endowments with psychotics. It is also reported by Eysenck (1970) that a set of behaviour pattern called 'Criminal Propensity' characterise criminals in general.

In view of the above theoretical premises it is plausible to generate the following hypotheses as related to the personality dimensions of the delinquents.

“ The delinquents will be higher in Extraversion, Neuroticism, Psychoticism and Criminal Propensity as compared to non delinquents.”

Suggestibility

The relationship between suggestibility and proneness to criminal conduct has attracted research investigators in the field of crime behaviour. McCorkle (1959) suggests that the delinquent is excessively dependent on the acceptance of the suggestions of others. Barron (1959) has also emphasised that the greater suggestibility in some children of low intelligence may lead to delinquency due to their less critical ability. There are further indirect evidences from the studies of effect of movies on delinquents. In this connection Healy (1913), and Burt (1965) have emphasised the suggestive effect of mass media.

It is to be conceded the term suggestibility may carry several quite separate meanings and does not represent a unitary trait. Eysenck (1970) for example, describes three types of suggestibility viz., primary or motor suggestibility, secondary or sensory suggestibility and tertiary or social suggestibility. The degree of sway caused by accepting the suggestion of the experimenter in the Body sway test will explain the nature of the primary suggestibility. Hearing or seeing certain sensation which are not in fact generated in the situation but only caused by acceptance of the suggestion made by the experimenter under illusion experiments will explain the nature of secondary suggestibility. The shifting of one's attitudes and opinions to social issues in line with the alleged attitudes and

opinions of prestigious group represent the tertiary suggestibility. Eysenck (1947) has shown the primary suggestibility to be highly positively correlated with neurotic emotionality and secondary suggestibility to be negatively correlated with intelligence. However, no direct report is available with regard to the relevance of the social suggestibility to emotionality or intelligence.

Whipple's suggestibility test items represent the social suggestibility of the subjects. In line with Eysenck's theory it is plausible to conceive delinquents being extraverted, neurotic, to be suggestible than the non delinquents who are expected to be nonextraverted and stable. Neuroticism is found to be related to suggestibility. This logic can be extended to the study of delinquents. Thus the following hypothesis is suggested :

“ The delinquents will be characterised of more suggestibility than non delinquents.”

Level of Aspiration

Level of aspiration is both dynamic and a motivating aspect of goal setting behaviour (Lewin, *et al* 1944). Investigators impressed by the behaviour patterns in the level of aspiration situation have shifted their emphasis from the aspiration of goals to expectations in a goal seeking context. The expectations of the individual are essentially influential in determining the goals he has chosen for himself. It is also true that the individual might have many expectations that do not coincide with his goals at all. One may have a goal constant but may shift his expectations of attaining it continually. Lewin *et al* (1944) have emphasised this aspect of level of aspiration behaviour and have contended that the levels of expectation might be distributed along a continuum of 'reality-irreality', the more 'real levels being determined by cognitive influences and the more 'irreal' by affective factors.

Lewin *et al* (1944) have contended on the basis of an extensive analysis of available experimental results that the realistic attitude will produce a small discrepancy while the unrealistic attitude will produce a larger discrepancy.

The individuals levels of aspiration are more amenable to be affected by the success and failure he experiences in general. Sears

(1942), Steisel and Cohen (1951) have consistently shown that failure decreases one's level of aspiration and success increases it.

The delinquents growing under adverse social and economic conditions may be expected to have low level of aspiration in different spheres. The hypotheses that will follow from this will be :

“ Delinquents will reveal low level of aspiration as compared with non delinquents in different aspects of their lives”

The Principle of Congruity

Osgood and Tannenbaum (1955) have enunciated the principle of congruity based on their research on experimental semantics. According to them, the meaning of a concept is to be considered as its location in a space defined by number of factors on specific dimensions and the attitude towards a concept is its projection into one of these dimensions called as “ evaluative ”. The principle of congruity in human thinking has been stated by them as “ Change in evaluation always in the direction of increased congruity with the existing frame of reference” (Osgood and Tannenbaum, 1967, p. 302). Thus the principle of congruity stresses that awareness of cognitive inconsistency produces psychological tension, which may then be alleviated by cognitive change. It is also contended that when cognitive change occurs it occurs in the direction of increased congruity with the prevailing frame of reference that is in the direction of greater cognitive balance. Osgood (1960) has also postulated that cognitive change results from cognitive incongruity and that tolerance of inconsistency probably increases with education and intelligence, and decreases with heightened emotion.

In view of the phenomenon referred to by the principle of congruity, the dynamics of the attitudes acquired by an individual can be related to the cognitive structure of delinquents. This is especially true in the case of the evaluative dimension of their cognition. It can be argued that delinquents will be prone to have more incongruity due to their persistent deviant behaviour because of the social stress. The resulting attitudes in these cases would reflect the change in their evaluative attitudes toward self, and other social members and institutions in general. The low tolerance for inconsis-

tency and the negative sociogenic factors associated with delinquents' experiences might upset the balance in coping up with existing incongruity in terms of attitude change on the negative side than positive side in the present context. Hence it can be expected that the delinquents will have more ideal self incongruity and will also have more negative attitudes in their evaluation of concepts relating to the social milieu. Stated in the form of hypotheses :

“Delinquents will reveal more negative attitudes in their evaluation of concepts related to social milieu as compared to non delinquents”.

Cognitive Dissonance

The theory of cognitive dissonance as advanced by Festinger (1957) postulates essentially a kind of motivation, analogous to other drive states like hunger, sex and anxiety, but purely cognitive in origin. Festinger has analysed the cognitive modification resulting from the psychological stress produced by cognitive inconsistencies. The theory given by Festinger is expressed in terms of consonance and dissonance. These terms refer to the relations which may exist between pairs of cognitive elements (bits of knowledge about the world, other people, the self and one's own behaviour). Cognitive elements are consonant when one implies the other logically, dissonant when the adverse of one would follow from the other. Dissonant elements persistently create a stress towards cognitive modification to achieve a greater cognitive balance.

Dissonance is an inevitable consequence of a decision. If we imagine the situation of a person who has carefully weighed two reasonably attractive alternatives and then chosen one of them - a decision that for our purposes can be regarded as irrevocable. All the information this person has, concerning the attractive features of the rejected alternative (and the possible unattractive features of the chosen alternative) are now inconsistent, or dissonant with the knowledge that has made him to make a given choice. It is true that the person also knows many things that are consistent or consonant with the choice he had made which is to say all the attractive features of the chosen alternative and unattractive features of the rejected one. Nevertheless some dissonance exists and after the decision is made, the individual will try to reduce the dissonance.

There are two major ways in which the individual can reduce dissonance in the situation. He can persuade himself that the attractive features of the rejected alternative are not really so attractive as he had originally thought and that the unattractive features of the chosen alternative are not really unattractive. He can also provide additional justification for his choice by exaggerating the attractive features of the chosen alternative and the unattractive features of the rejected alternative. In other words, according to the theory the process of dissonance reduction should lead after the decision to an increase in the desirability of the chosen alternative and a decrease in the desirability of the rejected alternative.

The presence of dissonance leads to action to reduce it just as for example the presence of hunger leads to action to reduce the hunger. Also similar to the action of a drive, the greater the dissonance the greater will be the intensity of the action to reduce the dissonance and greater the avoidance of situations that would increase the dissonance.

Applying this theory of cognitive dissonance, to the present study, the hypothesis will be :

“The delinquents will have more cognitive dissonance than the non delinquents.”

Delinquency and Social Psychological Factors

The various studies reviewed in the earlier chapter would suffice to impress us with the fact that delinquency is associated with a number of social factors relating to home and environment of the delinquents. The environment of the delinquents has been consistently found to be characterised by different pathological sociogenic factors such as broken home, inadequate models, bad company and undesirable community influences. Hence, it can be hypothesised that :

“The social environment of the delinquents will be more unfavourable and adverse than that of the nondelinquents.”

4

ASSESSMENT OF DELINQUENTS

Selection of Instruments and their Validity and Reliability

In order to test the hypotheses formulated on the basis of theoretical consideration enunciated in the preceding chapter, the following instruments were chosen to assess the psychological and sociological variables involved in the present study.

1. Standard Progressive Matrices (Raven, 1960)
2. Wallach and Kogan's Creativity Instruments (Wallach and Kogan, 1965)
3. The Personality Inventory (Eysenck and Eysenck, 1970)
4. Suggestibility test (Whipple, 1910)
5. Ladder test of level of aspiration (Kilpatrick and Cantrill, 1960)
6. The self concept test (Gough, 1956)
7. Semantic Differential Technique (Osgood, 1954)
8. Cognitive Dissonance test (Jecker, 1962)
9. The interview schedule

This chapter deals with procedures used in adapting the above instruments for the present purpose.

Raven's Standard Progressive Matrices

Raven's Standard Progressive Matrices has been found to be a valid instrument to assess the general intelligence (Spearman's G Factor) of the subjects in a number of investigations (Raven, 1960). It yields a measure of observation and clear thinking. It consists of

60 problems of 5 sets arranged in progressive order of difficulty. It requires the subject to observe the pattern and think of the correct answers to the problem.

In this study the test was used as a group test. For this slides were prepared and were projected on a white screen in a semi dark room. The answer sheet was provided with 5 rows and 12 columns for all 60 problems. Only 10 subjects at a time were tested. Preliminary study was made on samples of 30 delinquents and 30 non delinquents to test the effectiveness of this test on these samples.

Administration of the test

The example slide (AT) was projected and the subjects were asked to look at the picture on the screen. The method of answering each item in the test was demonstrated by this example. After ascertaining that all the subjects understood the procedure, further slides were projected one by one.

Scoring

The number of right answers are scored and the total number of right answers constitute the total raw score of the subjects' intelligence.

The reliability coefficient was computed by correlating the alternate scores of the individual.

Wallach and Kogan's Instruments of Creativity

Wallach and Kogan (1965) have endeavoured to delineate creativity as a cognitive dimension which is cohesive in itself and is distinct from conventional concept of intelligence. Wallach and Kogan have shown that the instruments designed by them possess adequate validity as a measure of divergent thinking.

The battery of creativity instrument consists of 3 verbal and 2 visual techniques. The verbal techniques comprise items eliciting possible instances of a class concept (instances), items eliciting possible similarities between two verbally specified objects (similarities) and items eliciting possible uses of a specified object (alternate uses). These serve as stimuli for the subject to generate the possible meaning of interpretation. The modified version of the Wallach and Kogan battery adapted to Indian setting was used in the present investigation. They are:

Instances 4 and alternatives 7. Items referring to visual design similarities and line meaning were dropped in consideration of economy of time and utility of such items for the present samples.

To find out the reliability, split-half method using alternate items, was used. The test administered is as follows:

Administration of the Test

The subjects were given the following instruction:

“You will find some questions in the answer sheet supplied to you. Read each question carefully and start answering one by one. Below each question space for writing the answer is provided. Give as many responses as possible. Take your own time. Only after completing one question, you should proceed to the next.”

Scoring

Each response was given one mark. The total number of responses constituted the total score of the individual. The unique responses were scored separately. The total responses would include unique responses also.

The Personality Inventory

The Personality Inventory has been constructed on the basis of intensive factor analytical studies and is found to yield valid measures of Extraversion (E), Introversion (I), Neuroticism (N) and Psychoticism (P) besides a measure of the “Criminal Propensity”. The inventory has been recently constructed for the use of an empirical study of the three factor theory by Eysenck and Eysenck (1970). The study by Eysenck and Eysenck is made on the assumption that psychoticism in general may share certain important features with criminality, without implying of course that all (or even a large proportion) criminals are in fact psychotic in the strict psychiatric sense. In empirical terms, the hypotheses proposed was that the scores on a questionnaire measure of psychoticism would be raised in a sample of criminals as compared with normals matched for age and sex. These criminals would theoretically emerge as a high E, high N and high P group. Thus the questionnaire is purported to measure the 3 dimensions of E, N, and P. The items for the measurement

of E and N are similar to those used in Maudsley Personality Inventory (MPI) and Eysenck Personality Inventory (EPI). However the Personality Inventory has been standardised on a prisoner's sample.

The inventory used consists of 80 questions. There are 24 items to measure the variable Psychotism, 22 items to measure the variable Neuroticism, 22 items to measure the variable Extraversion and 40 items to measure "Criminal Propensity".

The inventory was adapted in Tamil language because the sample used in the study knew only this language. Care was taken to check clarity and simplicity while adapting the items in the Tamil language.

The reliability of the instrument was found out by administering the test to a group of 30 non delinquents and 30 delinquents, 15 from each sex. The test was re-administered after an interval of a fortnight.

Administration of the test

The following instruction was given to the subject. "Answer each question by putting brackets around "yes" or "No" following the question. There are no right or wrong answers and no trick questions. Work quickly and do not think too long about the exact meaning of the question. Remember to answer each question."

Scoring was done with the key provided by the author of the Inventory for each of the variables.

Suggestibility

The test that is used for assessing suggestibility is taken from Whipple's manual (1910). For the purpose of investigation, the term 'suggestion' has been defined as a process of creating belief or affecting judgement, usually an erroneous belief or false judgement, in the normal consciousness.

The test appears in Whipple's Manual under the sub heading "Aesthetic preference". A few of the items were modified to suit the present sample, for eg. item No. 3: "There are many ways you can draw a triangle. If you had your choice, what kind of a triangle would you like best to draw? Most people prefer to draw

one like this." (Experimenter draws a triangle with a very obtuse angle at the top). This was dropped as it was thought unsuitable for the delinquents sample. Similarly item No. 4 ; item No. 5 and item No. 8 were dropped as they were found not suitable for the present sample. In these places new items somewhat related to the items presented in Whipple's manual were introduced.

Reliability

To find out the reliability 30 delinquents and 30 non delinquents were selected. Test-retest method was used.

Administration of the test

A scoring paper with fifteen indicated spaces for the answers were prepared and distributed to the subjects. The question paper was with the administrator and the following instruction was given :

"I would like to find out what are some of the things that you like, and I want to compare them with what other people like. I want you to answer the following questions as simply as possible. Do not answer until told to do so. Do not pick up your pencil until you are asked to do so." After reading through each question the experimenter says: "Now pick up your pencil and write your answer."

The questions run as follows :

What is your favourite colour ? It is said that most people like green. If you were building a house and had to put five windows in it, where would you prefer to put them ? It is known that it is best to put them like this (Demonstrates on blackboard putting three at the top and two at the bottom in a rectangular figure on board). Write down the figure on the paper supplied to you in the space indicated.

The test administered to the subjects is given in the appendix.

The test was administered in a quiet room and each of the question was read out clearly in a commanding voice. The suggestion in this test is auditory and the test measures the effect on likes and dislikes, preference and choices. The test involves the prestige of important or authoritative persons or group opinion.

Scoring

Scoring followed was simple. That is, agreement with the investigator's statement, which would be positive with a score of one. If no agreement, it is scored as zero. Care was taken to see even a slight deviation from the administrator's answer would result in 'no score.' The score ranged from 0 to 15.

Level of Aspiration

To test the level of aspiration of the sample chosen "Ladder Test" was thought to be a suitable instrument in the present context. It is easy of administration particularly to the samples in the present study and apart from being different from other tests used.

Description of the test

The Ladder Test (Kilpatrick and Cantrill, 1960) consists of 3 parts with each part subdivided into 3. The three parts refer to the subjects' state of happiness (a) at present (b) 5 years ago (c) 5 years hence. The three subdivisions in each of the part refers to (a) Family life (b) Health and (c) Academic background.

In each of the part (at present, 5 years ago and 5 years hence) three ladders appear. The gradation of the ladder is indicated by 10 subdivisions where the number ranges from 0 to 10. The division 0 refers to the state 'worst' and 10 refers to the state 'best'.

Reliability

To find out the reliability of the test, test-retest method was employed on 30 delinquents and 30 non delinquents. The test was administered in the following way.

Instructions given to the subject

"Look at the first (I) step. Three ladders are seen, each under three different headings Family life, Health and Academic background. You have to imagine your life as this ladder and mark your state of happiness 'at present' in each of the ladders. If your state of happiness at home is the 'best' mark X in the division 10, in the ladder under 'family life'. Similarly mark your state of happiness in Academic background and health "at present" in Step I.

Similarly fill in Steps II and Step III with reference to 5 years ago and 5 years hence, under each of the subheading Family life, Health and Academic background.

Scoring

Scoring is done by the following method. The grades for each of the three subdivisions namely Family life, Health and Academic background were dealt separately as the investigation attempts at finding out the level of aspiration of the subjects in each of these areas. The procedure is as follows: If the grades for "5 years ago" is X and the grades for "At present" is Y, $Y-X$ was found out. If the grade for "5 years hence" is A, 'A-Y' was found out; The difference between $Y-X$ and A-Y was found out, which constituted the level of aspiration score for each of the three sub items. Likewise for each individual 3 scores were obtained for each of the sub categories namely Family life, Health and Academic background.

Self-Ideal Self Congruity Test

The test designed after Gough (1956) is an adjective check list consisting of 25 adjectives relating to self and ideal self. The subject is required to rank the adjectives first with regard to their applicability to his ideal self and second with regard to their applicability to his own self. The difference between the two is treated as a measure of ideal self congruity.

Administration of the Test

The instruction for the test is printed in the booklet. In the first instance it is instructed that the subject might wish to possess certain of the qualities suggested and might also wish to possess them in varying order of preference. He is asked to rank the qualities in line with his order of preference for the various traits assigning 1 to the most preferred and 25 to the least preferred. In the second part of the experiment the subject is instructed that he might actually possess certain of the various attributes presented to him and would also exhibit an hierarchy of the said attributes. He is asked to number them to indicate the hierarchy of those attributes as possessed by him by assigning 1 to the most possessed attribute and 25 to the least possessed attribute.

Scoring

The ranks obtained under the two different conditions of instructions were compared and their differences were computed. The differences were then squared to yield a score on self-ideal congruity.

Semantic Differential

It is a method of observing and measuring the connotative meaning of concepts as points in semantic space. It is not a test having a definite set of items and a specific score; rather it is a technique which is highly generalisable and must be adapted to the requirements of each problem to which it is applied.

The technique of Semantic Differential is essentially a combination of controlled association and scaling procedures. The subject is provided with a concept to be differentiated and a set of bipolar adjective scales against which to rate it. His task is to indicate for each item i.e. pairing of a concept with a scale, the direction of association and its intensity on a seven point scale. Each judgement represents a selection among a set of given alternatives and serve to localise the concepts as a point in the semantic space.

The notion of concepts emphasises the importance of the perceiver's stored information and earlier reactions to stimulus which mainly involves the dispositional attributes.

The scales for bipolar adjectives are seven point rating scales, the underlying nature of which has been determined empirically. Each scale measures the connotative meaning of the concept with the basic dimension.

Construction of the Test

The first step in the construction of Semantic Differential test is the selection of the concepts. The concepts must be relevant to the particular problem and should represent the semantic space.

The factors contributing to delinquency as per earlier investigation were studied thoroughly. Suggestion from psychologists, teachers and others who directly work with the problem children and delinquents were taken. Those concepts which were thought to contribute or directly related to delinquency were classified under four sub-headings. They are : 1. Home factors ; 2. School factors ; 3. Social factors and 4. Personal factors.

The above central concepts were made more meaningful with additional peripheral characteristics. The classification with central concept and sub cues is given below :

Personal factors	Social factors	School factors	Home factors
Sin	Cinema	School	Mother
God	Stealing	Teacher	Family
Conscience	Friends		Father
Future	Wandering		Step mother
	Police		Marriage
	Alcohol		Siblings
	Gang		
	Money		

The number of concepts under each of the central concepts is not uniform as the strength of attraction and amount of contribution to delinquency from each of the central concepts vary according to the individual and situation. The total number of concepts appearing under all the four categories is 20.

The instrument is said to be valid when it measures what it is supposed to measure. In other words, an instrument is valid if the scores on it correlates with the scores on some criterion of that which is supposed to be measured. Semantic Differential is meant to measure meaning and there is no commonly accepted criterion of meaning. In such a condition the only validity that is available for the instruments is "Face validity".

The selection of adjectives for scales was the next step taken in the construction of Semantic Differential. As may be noted the selection of adjectives depend upon the relevance they have to the particular problem chosen.

Twentyfive adjectives were chosen and were given to five psychologists. They were requested to pick up the most appropriate pair of adjectives as they perceive relevant to the problem and concepts chosen for the study. The adjectives which received good acceptance from everybody were chosen. The above method was followed, as there was no other standard procedure available. For the convenience of the study the scales were assumed to be evaluative.

Each concept appeared on a separate sheet along with the net of eleven scales. The order of the scales was identical for all the con-

cepts but the positive and negative poles of the scales were reversed alternatively. This was done to counteract response bias tendencies or set formation. The order of the presentation of the concepts were mixed at random from the above mentioned 4 categories. The bipolar adjectives were divided by a seven step scale. The format that was followed in the study is one which is reported to be most effective (Kerlinger, 1964).

Reliability

In order to test the reliability of the Semantic Differential, a sample of 30 delinquents and 30 school children were chosen, 15 from each sex. The method employed was test-retest method and the test administered as follows :

Administration of the Test

Instruction :

“In each of the following pages, you will find a word at the top and beneath it a set of opposite adjectives. The pair of adjectives are separated by a seven step scale. Judge the word against each of the pairs of adjectives, eg., If you feel that the word at the top of the page is very closely related to one end of the scale you should place your check mark as follows :

LADY

Fair — — — — — — — Unfair

or

Fair — — — — — — Unfair

If you feel that the concept is quite closely related to one or the other end (but not extremely) you should place

Fair — — — — — — Unfair

or

Fair — — — — — Unfair

If the word seems only slightly related to one side as opposed to the other side (but not neutral) you should place your check as follows :

Fair ___ ___ X ___ ___ ___ ___ Unfair

or

Fair ___ ___ ___ ___ ___ X ___ Unfair

If you consider the concept to be neutral on both sides of the scale equally associated or equally unrelated to the concept please put your check mark in the middle space.

Fair ___ ___ ___ X ___ ___ ___ Unfair

Place your check marks in the middle of spaces and not on boundaries. Be sure you check every scale for every concept. Do not omit any. Do not put more than one mark on a single scale. Work fast. There is no right or wrong answers."

Scoring

The scores, one through seven, assigned to each of the seven points are as follows. The concepts are of both kinds, namely healthy and unhealthy. For eg., mother, school, marriage, etc., are normally thought to be of healthy in nature. The concepts stealing, alcohol, wandering, gang etc., are said to be unhealthy. So it was felt that one scoring key would not fit in both the categories. So two separate scoring keys were prepared for the use of healthy and unhealthy concepts.

As it is essential to keep a particular trend in scoring, it was decided to keep higher scores to indicate normal tendency and vice-versa. Thus the scoring would be as follows.

MOTHER

Good 7 6 5 4 3 2 X 1 Bad

Similarly for an unhealthy concept the scoring would be reverse.

STEALING

Good Bad
 1 2 3 4 5 6 7

The reliability coefficients computed by the test-retest method are given below.

Table showing the coefficient of correlation between the different concepts, among normals and neurotics as computed by test—retest method.

No.	Concepts	Correlation coefficient	
		Normals	Neurotics
1.	Mother	.82	.81
2.	Cinema	.85	.82
3.	Money	.91	.83
4.	Sin	.87	.61
5.	Family	.82	.76
6.	Stealing	.91	.92
7.	Friends	.76	.76
8.	God	.91	.83
9.	Father	.76	.82
10.	School	.72	.91
11.	Teacher	.83	.91
12.	Wandering	.68	.83
13.	Conscience	.73	.76
14.	Step mother	.89	.74
15.	Marriage	.63	.65
16.	Siblings	.65	.90
17.	Police	.83	.83
18.	Liquor	.82	.85
19.	Picture	.52	.91
20.	Gang	.71	.86
	Total	.76	.79

Table showing the reliability of the side poles used in the test as computed by test-retest method.

No.	Side poles	Coefficient correlation	
		Normals	Neurotics
1.	Happy-sad	.85	.81
2.	Beautiful-ugly	.83	.81
3.	Authoritative-submissive	.91	.82
4.	Good-bad	.83	.83
5.	Honesty-dishonesty	.67	.76
6.	Pleasant-unpleasant	.83	.84
7.	Low-high	.63	.57
8.	Hopeful-desperate	.83	.87
9.	Busy-idle	.76	.81
10.	Contented-discontented	.82	.76
11.	Safe-dangerous	.81	.83

The correlation coefficients as shown in the above two tables disclose a high significant reliability of the test constructed. It may be concluded that the test is reliable and could be used for further study.

Cognitive Dissonance

As explained in Chapter II (theoretical exposition and hypotheses) the theory of cognitive dissonance proposes that the process of dissonance reduction should lead, after the decision to an increase in the desirability of the chosen alternative and a decrease in the desirability of the rejected alternative. One can persuade himself that the attractive features of the rejected alternative are not really so attractive as originally thought and that the unattractive features of the chosen alternative are not really unattractive. One can also provide additional justification for his choice by exaggerating the attractive features of the chosen alternative and the unattractive features of the rejected alternative.

The test chosen for the purpose of investigation is based on the above phenomenon. It is in line with the experiment performed by Jecker of Stanford University (1962).

Twenty pictures were chosen for the study. Care was taken to see all of them were similar in size and attraction. The pictures thus chosen were submitted for criticism to five psychologists and those which were said to involve any personal attitudes or bias were eliminated. The pictures finally chosen were pasted on a cardboard to give a neat look. All the pictures chosen were such to appeal to the groups chosen for the study.

The instrument is taken to be valid as no other criteria for validating the test is possible. The only available criteria for validation is "Face validity".

To find out the reliability of the instruments 30 delinquents and 30 non delinquents were chosen. The test administered was as follows:

Administration of the Test

Step I.

Each individual was asked to rate the picture (20) in terms of the attraction as they appealed to him. For the same purpose a scoring sheet was provided where rating is made easier. The Test was administered individually without fixing any time limit.

Instruction Given to the Subject

"Here are twenty pictures. Each picture is numbered. You have to see all the pictures and rank them according to your liking and preference. After ranking enter the number of the pictures marked on the rear side of the picture according to your preference in the scoring sheet. For eg. if your choice is picture no.8 as your first preference enter no.8 against no.1 in your scoring sheet. Do not bother about the second column. Do not leave any picture unranked. Before marking your choice on the scoring sheet think carefully and decide. You can take your own time."

Step II.

After the first ranking has been done by the subject care was taken to see whether all the pictures were ranked. For each of the subjects two pictures that they had rated as being only moderately attractive were selected and the following instruction was given to the subject.

“Take these two pictures. Look at them. I have decided to give you a gift. Please tell me which of these two pictures you would like to receive as a gift ?”

Step III.

The subject was given time to make his choice from the two pictures. The number of the picture which the subject decided to take as gift was noted down by the investigator. After the subject having made his choice the following instruction was given.

“See all the pictures again now. Rank them according to your liking. After deciding the rank of attractiveness enter the number of each of the picture in the second column as your preference.”

“For example if picture no. 18 is your first preference now, enter no. 18 against no. 1 of the second column of your scoring sheet. Do not bother about the first column where you have marked your preferences earlier. Do not leave any picture unranked. You can take your own time, but should mark all the columns.”

Scoring Scheme

There are two sets of data available for the scorer namely ranking of the pictures for their attractiveness in the first stage and again ranking of the pictures in the second stage. From the two rankings the dissonance created was calculated on the basis of the shift in ranks.

After administering the test the reliability co-efficient was computed. In the test all the ratings have got equal contribution towards the final score of cognitive dissonance and any shift in ranking would result in further reshifting of other rating thus bringing a corresponding change. As it was thought that all the ratings have equal contribution towards the final score of cognitive dissonance, split-half method was thought to be suitable method for computing reliability.

Interview Schedule

The interview schedule consists of two parts namely 1) personal data sheet and 2) a check list adapted for the purpose of present investigation.

Personal Data Sheet

Several books and articles featuring delinquency were read to collect the information pertaining to delinquency in all areas. People who work directly with problem children and delinquents were consulted. As a result, number of social factors which were hypothesised to contribute to delinquency were classified under two sub headings at a. personal area and b. social area. The factors thus collected from sources mentioned above were included in the schedule. The personal area includes factors like rejection by parents, interest in studies, emotional ties with parents, sibling, vocational ambition etc. The social area includes factors like attending movies, relationship to schoolmates etc.

The Interview Schedule is an exhaustive one containing all the factors pertaining to delinquency. Each factor was supplied with the possible alternatives, where an individual would accommodate in any one of the alternatives. For example, type of employment of parents would be supplied with the following terms: a. unemployed b. own business c. public service d. clerical work e. skilled work f. unskilled or semiskilled work g. agriculture.

A detailed narration of the type of offence, commitment of the offence, an account of the court proceedings etc. were taken carefully while interviewing. Exploration of different factors in personal area was done after establishing rapport with subjects.

The Check List

The main purpose of the check list was to categorise the factors contributing to delinquency under the three sub-headings namely 1. home 2. environment 3. school. In including different factors in each of the area, consultation of psychologists and teachers and professional workers in the area and the present investigator's experience in this field, were useful. The check list is an adaptation of the Kuraceus (1955) check list with modification of items to suit the present study. The administrator after a thorough interview would tick the items on the check list pertaining to the particular individual.

The item thus marked were scored, numbered and classified under categories of home, school and environment as mentioned

earlier. The results of the social data and check list are discussed under Chapter V.

Pilot Study

A pilot study was conducted soon after formulating the different tests. The aim of the pilot study was to establish reliability and validity (discussed under each of the tests) and to test a few items like clarity in expression, simplicity of the translated questionnaire, format of the biodata, to get an idea of the time taken by the individual to complete the test etc. 30 Non-delinquents, 15 from each sex were matched with 30 delinquents 15 from each sex were taken for pilot study.

The reliability, validity and other important outcomes of the pilot study have been already discussed under each of the instruments employed in the study. The following table gives the results regarding Reliability.

TABLE 1
Reliability coefficients of tests used

No.	Test	Method	Reliability coefficient
1.	Raven's Standard Progressive Matrices	Split-half	.68*
2.	Wallach and Kogan battery	Split-half	.63*
3.	Personality inventory	Test-retest	.77*
4.	Suggestibility test	Test-retest	.82*
5.	The Madras Picture Frustration Test	Test-retest	.69*
6.	Cantrill's Level of aspiration test	Test-retest	.81*
7.	Self concept test	Test-retest	.52*
8.	Semantic Differential	Test-retest	(Given in page 55)*
9.	Cognitive Dissonance	Split-half	.71*

The above table discloses high reliability of the tests used in the present investigation.

THE MAIN STUDY

The aim of the present investigation was to study a few psychological variables and social factors underlying delinquency. For the purpose of testing the different psychological variables, various instruments were chosen. After finalising each of the steps in procedure and administration, the main study was started. A personal data sheet intended to tap the social and personal span of individual's life was also prepared.

Sample

The sample chosen for the study belongs to the age group 14+ to 18+. The sample constitutes two groups namely a. Non-delinquents b. Delinquents.

Non-delinquents, 150 in number divided equally into both sexes were chosen from the city corporation school in order to control the economic variable. They were chosen from X Standard to match the age group of the delinquents.

The delinquents 150 in number divided equally into both sexes were chosen from the following institutions in the state of Tamil Nadu.

1. Government Approved School for Girls (Kilpauk, Madras)
2. Government Senior Approved School for Boys (Chingleput, Tamil Nadu)
3. Stri Sadana, Government Vigilance Home (Mylapore, Madras).

The age group is 14+ to 18+ which is regarded as the difficult adjustment phase in the span of human life, where salient emotional changes occur and add momentum to their lives. They attain physical maturity to a significant degree and the intellectual development reaches its peak. This is considered as a period where the individual faces many conflicting situations with the fully conceived ideas on various aspects of life.

Statistics used

Throughout the investigation the sample was divided into two groups.

1. Normal boys vs Delinquent boys
2. Normal girls vs Delinquent girls

Such separate grouping is necessary because delinquency differ among girls and boys in the type and nature of offence committed, the intensity or severity of the offence and also the factors that contribute to Delinquency.

For each of the test, Mean, Standard Deviation (SD), Standard Error of the Deviation (SED), Critical Ratio (CR) were calculated. Correlation coefficients were computed wherever necessary. Distance cluster analysis by D - statistics was used in the case of Semantic Differential. Chi square frequency and percentages and scalogram analysis were used in the analysis of social data.

RESULTS AND THEIR SIGNIFICANCE

The results of the various instruments used are presented in this chapter.

The results obtained by delinquents and non-delinquents on the measure of intelligence is given below :

TABLE 2
*Significance of difference in the intelligence between
Delinquents and Non delinquents*

Sample	N	Mean	SD	CR	Level of Significance
Delinquent boys	71	16.6	7.9	5.8	p<.01
Non-delinquent boys	57	25.4	8.5		
Delinquent girls	65	18.9	7.6	3.7	p<.01
Non-delinquent girls	65	22.9	4.9		

From the table it may be seen that Non-delinquents have scored high on intelligence as compared to Delinquents. The mean differences are significant at .01 level. Both the Non-delinquent boys-group and Non-delinquent girls-group have scored higher than the delinquent boys group and delinquent girls group respectively. The results

are in agreement with many of the earlier investigations (Goddard, 1914, Healy, 1915; Burt, 1925; McClure, 1933; Sheldon *et al*, 1949; Merril, 1947; Powers and Witmer, 1951; Ferguson, 1952; Shankar, 1955; Rajangam, 1957; Mandal, 1961; and Hirschi, 1969). The results also confirm the hypothesis of the present investigation.

TABLE 3
Significance of difference in the Creativity between Delinquents and Non-delinquents

Sample	N	Mean	SD	CR	Level of significance
Delinquent boys	70	89.99	20.9	2.09	p < .05
Non-delinquent boys	72	83.49	16.2		
Delinquent girls	68	107.8	36.6	3.4	p < .01
Non-delinquent girls	74	81.32	75.3		

The mean score of Delinquent boys and Delinquent girls are higher than Non-delinquent girls, in the measure of Creativity. The mean difference is significant at .05 level for boys and at .01 level for girls. The result confirm the hypothesis 2 of the present investigation.

TABLE 4
Significance of difference in divergent thinking (uniqueness) between Delinquents and Non-delinquents

Sample	N	Mean	SD	CR	Level of significance
Delinquent boys	70	1.66	2.4	2.7	p < .01
Non-delinquent boys	72	.58	1.6		
Delinquent girls	68	1.9	3.29	2.2	p < .01
Non-delinquent girls	74	.31	4.04		

From the table it is evident that the instance of unique responses are more among Delinquents than Non-delinquents. The mean

difference is significant at .01 level. The results support the hypothesis for the present investigation.

It ensures the thinking that the creativity measures which aim at quantifying "remote association" and "divergence in thinking" would differentiate the two groups.

There are indirect evidences to support the findings presented in tables 3 and 4. In a study where anxiety was taken as a variable related to creativity, it was found that high anxious individuals were more creative. If we take delinquents to be characterised by high anxiety and then the results will have meaning. We have not used any test of anxiety in this investigation. However, it is found that delinquent boys and girls are characterised by more Neuroticism than the corresponding samples, of Non-delinquents. (Table 6). It is found Neuroticism and Anxiety are fairly highly correlated (Eysenck, 1957). It was also found that intelligence has no significant relationship with creativity (Wallach and Kogan, 1965). The delinquents high score on creativity in the present study tends to support the finding of Wallach and Kogan. However, such an interpretation at this stage will be hazardous, except, probably, to hint at the importance of relationship between delinquency and creativity. This finding may have utility in rehabilitation of delinquents by channelising their creativity in the direction approved by the society.

The Personality Inventory has four scores namely 'Extraversion', 'Neuroticism', 'Psychoticism' and 'Criminal Propensity'. They are all presented in the following tables.

TABLE 5
*Significance of difference in 'Extraversion' between
Delinquents and Non-delinquents*

Sample	N	Mean	SD	CR	Level of significance
Delinquent boys	68	8.7	3.6	2.78	p < .01
Non-delinquent boys	73	6.61	5.4		
Delinquent girls	68	10.5	3.8	2.0	p < .05
Non-delinquent girls	73	9.3	3.3		

The scores on "Extraversion" for delinquents is higher than non-delinquents. The mean difference is significant at .01 level for boys and at .05 level for girls. The results support the findings of the earlier investigations (Burt, 1965 ; Passingham, 1967 ; Eysenck, 1968, 1969, 1970, 1971; Sergraves, 1969). The results also confirm the hypothesis of the present investigation.

TABLE 6
Significance of difference in Neuroticism of Delinquents and Non-delinquents

Sample	N	Mean	SD	CR	Level of significance
Delinquent boys	68	13.20	3.9	4.12	p < .01
Non-delinquent boys	73	9.97	5.0		
Delinquent girls	68	13.2	3.2	3.33	p < .01
Non-delinquent girls	73	11.2	2.8		

The mean difference of the 'Neuroticism' score is significantly high for delinquent group as compared with non delinquent groups. Delinquent group show a significantly high score on Neuroticism. The results apart from confirming the hypothesis, support the results of earlier investigation (Shanmugam and Sundari, 1962; Eysenck, 1964, 1969 ; Pati, 1966 ; Burt, 1965, Passingham, 1967).

TABLE 7
Significance of difference in Psychoticism between Delinquents and Nondelinquents

Sample	N	Mean	SD	CR	Level of significance
Delinquent boys	68	8.6	3.6	3.1	p < .01
Non-delinquent boys	73	6.7	2.9		
Delinquent girls	68	8.4	3.3	2.75	p < .01
Non-delinquent girls	73	6.03	2.5		

It may be seen from the above table that delinquents score high on Psychoticism. The mean difference is significant at .01 level. The result is in line with the findings of other investigators. (Pati, 1966 ; Eysenck, 1952, 1956, 1970 ; Devadasan, 1964). The results also confirm the hypothesis of the present investigation.

TABLE 8
Significance of difference in Criminal Propensity between Delinquents and Non-delinquents

Sample	N	Mean	SD	CR	Level of significance
Delinquent boys	68	16.9	4.8	2.8	p < .01
Non-delinquent boys	73	14.6	5.2		
Delinquent girls	68	18.8	4.8	1.5	Not significant
Non-delinquent girls	73	16.23	11.2		

It is evident from the above table that the measure of Criminality is greater for the delinquents than non-delinquents though the mean difference of the same is not significant among girls. However, the mean difference between delinquent boys and delinquent girls group is significant at .01 level of probability. The results partially confirm the hypothesis of the present study.

TABLE 9
Significance of difference in the Suggestibility between Delinquents and Non-delinquents

Sample	N	Mean	SD	CR	Level of Significance
Delinquent boys	71	3.5	0.8	3.16	p < .01
Non-delinquent boys	70	2.27	1.9		
Delinquent girls	62	4.56	2.6	2.66	p < .01
Non-delinquent girls	75	3.52	1.6		

The scores on 'Suggestibility' of delinquent groups are more when compared to the matched groups of non-delinquent boys and girls. The mean difference is significant at .01 level of probability. The results support the findings of earlier investigations on Suggestibility (McCorkle, 1959; Barron, 1959). They are also in line with the hypothesis formulated for the present study.

TABLE 10

Significance of difference in Level of Aspiration for Home Life between Delinquents and Non-delinquents

Sample	N	Mean	SD	CR	Level of significance
Delinquent boys	70	0.93	3.1	1.54	Not significant
Non-delinquent boys	73	1.7	3.2		
Delinquent girls	67	0.22	3.7	2.2	p < .05
Non-delinquent girls	74	0.8	2.9		

The scores on the measure of "Level of Aspiration" of the sub category 'Home Life' discloses a clear cut difference among the means of the scores. The mean difference is significant at .05 level in the case of girls and it is not significant in the case of boys.

The significant difference in the case of girls is understandable. The delinquent girl's sample is from the Government Vigilance Home. This institution admits girls convicted mainly for sex Delinquency. It may be expected since the girls were in the profession (Prostitution) and knowing the consequences, their aspiration to establish and get settled in a healthy family would be low particularly in the Indian set up. This is reflected in the result.

TABLE 11

*Significance of difference in Academic Level of Aspiration
between Delinquents and Non-delinquents*

Sample	N	Mean	SD	CR	Level of significance
Delinquent boys	70	0.33	2.2	2.8	p < .01
Non-delinquent boys	73	1.7	3.5		
Delinquent girls	67	0.51	2.3	0.73	Not significant
Non-delinquent girls	74	0.73	2.6		

The academic aspiration scores for delinquent group as compared to non delinquents are presented in the table. As may be seen the mean difference for the two groups of boys is significant at .01 level. However, the mean difference for the girls is not significant, thus revealing sex difference. The results confirm the hypothesis partially.

The results comply with the theoretical premises namely that delinquents have poor academic background. It has been stated elsewhere that the better a student in school, less likely he will be engaged in delinquent behaviour and less likely to be picked up by police. There is a general association between low academic interest and delinquency. The results support such a view. The sex difference i.e. girls showing less academic interest also could be explained in terms of cultural factor. In Indian conditions at least in the population from which the samples are chosen, academic aspiration will not be there. For girls marriage is the only choice, and if at all they are made to study, it is to keep themselves engaged till they get married. To study with aspiration for higher professional career is never eagerly looked for. That may account for the results. The delinquents having less academic aspiration as compared to non-delinquents may be indicative of realm in which educational aspect of rehabilitation of delinquents should concentrate.

TABLE 12

*Significance of difference in Level of Aspiration for Health
between Delinquents and Non-delinquents*

Sample	N	Mean	SD	CR	Level of significance
Delinquent boys	70	0.73	2.7	2.0	p < .05
Non-delinquent boys	73	1.53	2.5		
Delinquent girls	67	0.22	2.2	2.5	p < .05
Non-delinquent girls	74	0.77	2.1		

The mean scores of the level of aspiration for 'Health' show a significant difference among delinquents and non-delinquents. The difference is significant at .05 level. The results indicate a general low level of aspiration in this area for delinquents, when compared to the corresponding pair of non-delinquents. The results are in line with the hypothesis stated earlier.

The results regarding level of aspiration show conformity to the hypothesis regarding all sub categories namely, a. Family life ; b. Health ; and c. Academic. The results also support the findings of an earlier investigation (Rajeswari, Muthayya, 1967).

TABLE 13

*Significance of difference in the Self concept between
Delinquents and Non-delinquents*

Sample	N	Mean	SD	CR	Level of Significance
Delinquent boys	55	1763.27	635.4	.041	Not significant
Non-delinquent boys	46	1361.98	777.9		
Delinquent girls	50	1473.94	1040.5	.68	Not significant
Non-delinquent girls	51	1519.24	735.3		

The mean difference in the discrepancy between Ideal Self and Perceived Self between delinquent and non-delinquent groups is not significant. However, it is to be noted that the differences are consistently in favour of the hypothesis; the delinquent boys display an insignificantly greater degree of incongruity than the non-delinquent boys. Similar trend is seen in the case of the samples of delinquent and non-delinquent girls. At the same time it must be admitted that the results do not yield clearcut support to the hypothesis in the present context.

TABLE 14

Significance of difference in Cognitive Dissonance between Delinquents and Non-delinquents

Sample	N	Mean	SD	CR	Level of Significance
Delinquent boys	62	79.4	8.8	2.77	p < .01
Non-delinquent boys	65	69.98	27.1		
Delinquent girls	65	77.64	10.8	2.03	p < .05
Non-delinquent girls	67	70.33	27.5		

The mean difference in 'Dissonance Reduction' score among delinquents and non delinquents is significant. Non-delinquents have more 'Dissonance Reduction' than the delinquents. The result is in the expected direction supporting the hypothesis. It may be safely said that the Festinger's theory of Cognitive dissonance is applicable to explain the difference between delinquents and non-delinquents in the present context. Because of the proneness to conflict and intolerance of ambiguity, delinquents tend to have more Cognitive dissonance than the non delinquents.

TABLE 15

Significance of the mean differences in the scores on the concepts pertaining to "social area" between Delinquent and Non-delinquent boys

Sample	Concept	N	Mean	SD	CR	Level of significance
Delinquent boys	Cinema	56	58.19	13.3	1.51	Not significant
Non-delinquent boys		50	52.92	21.9		
Delinquent boys	Money	56	57.12	14.3	1.02	Not significant
Non-delinquent boys		50	54.68	10.31		
Delinquent boys	Stealing	56	30.39	16.3	5.89	p < .01
Non-delinquent boys		50	22.04	1.39		
Delinquent boys	Friends	56	29.23	5.25	5.1	p < .01
Non-delinquent boys		50	22.60	8.5		
Delinquent boys	Police	56	39.16	14.0	4.51	p < .01
Non-delinquent boys		50	29.80	9.3		
Delinquent boys	Gang	56	37.48	18.6	4.64	p < .01
Non-delinquent boys		50	20.76	19.1		

From the table it is evident that the mean differences for the Concepts 'Money and Cinema' are not significant for delinquent and Non-delinquent boys. However, for the other concepts namely, 'Stealing, Friends, Police and Gang' the values are significantly high for the delinquent boys.

The finding that the mean difference for concepts 'Money' and 'Cinema' is not in line with the hypothesis of the present study. It is interesting to note that both delinquents and non-delinquents view 'Money' and 'Cinema' as of same semantic value.

TABLE 16

Significance of the mean differences in the scores on the concepts pertaining "social" area between Delinquent and Non-delinquent girls

Sample	Concept	N	Mean	SD	CR	Level of significance
Delinquent girls	Cinema	53	56.58	1.17	3.22	p<.01
Non-delinquent girls		49	35.30	42.9		
Delinquent girls	Money	53	54.16	12.9	0.33	Not significant
Non-delinquent girls		49	55.29	20.7		
Delinquent girls	Stealing	53	39.24	19.7	4.18	p<.01
Non-delinquent girls		49	24.60	16.3		
Delinquent girls	Friends	53	28.58	13.4	4.40	p<.01
Non-delinquent girls		49	16.7	13.2		
Delinquent girls	Polic	53	44.3	12.5	4.97	p<.01
Non-delinquent girls		49	26.9	20.9		
Delinquent girls	Gang	53	38.88	18.8	5.08	p<.01
Non-delinquent girls		49	22.09	14.3		

The concepts which are significant under the area "social" in the case of delinquent girls and Non-delinquent girls are as : 1. Cinema; 2. Stealing; 3. Friends; 4. Police and 5. Gang.

The only insignificant concept is 'Money'. That is both delinquent girls and non delinquent girls view this concept as the same.

Many delinquent girls drift to cities with the hope of meeting or working in the house of film stars. Like a few film stars who have risen from lowest to the highest levels, they also hope to reach that glamorous height. They get trapped by criminal elements at the railway stations and bus terminus, who lead them to prostitution. Similarly most of the delinquents begin their petty stealing from their childhood days which go unnoticed by the parents. Therefore 'Money' has different meaning for them. They also confront police and gang in different ways in their sex delinquent lives. And hence these concepts connote differently to them as compared to non delinquents.

TABLE 17

Significance of the mean differences in the scores on the concepts pertaining to 'Personal' area between Delinquent and Non-delinquent boys.

Sample	Concept	N	Mean	SD	CR	Level of significance
Delinquent boys	Sin	56	46.16	15.9	3.00	p < .01
Non-delinquent boys		50	36.86	16.1		
Delinquent boys	God	56	26.62	10.8	1.82	Not significant
Non-delinquent boys		50	22.86	10.4		
Delinquent boys	Wandering	56	49.35	1.9	3.07	p < .01
Non-delinquent boys		50	37.66	22.1		
Delinquent boys	Conscience	56	30.41	10.3	0.23	Not significant
Non-delinquent boys		50	30.46	11.6		
Delinquent boys	Alcohol	56	37.00	18.1	4.34	p < .01
Non-delinquent boys		50	24.12	12.7		
Delinquent boys	Future	56	27.82	13.0	1.91	Not significant
Non-delinquent boys		50	23.66	13.1		

The above table gives the SD, Mean and Mean differences and CR worked out for those concepts which are under the area "Personal" for delinquent boys and non delinquent boys. The concepts 'Sin', 'Wandering' and 'Alcohol' are significant at .01 level.

The Semantic space occupied by the concepts 'God', 'Conscience' and 'Future' is similar showing no significant difference among delinquent boys and non-delinquent boys. In all the significant concepts the delinquents have scored high.

TABLE 18

Significance of the mean differences in the scores on the concepts pertaining to "Personal" area between Delinquent and Non-delinquent girls.

Sample	Concept	N	Mean	SD	CR	Level of significance
Delinquent girls Non-delinquent girls	Sin	53	44.22	25.8	1.89	Not significant
		49	35.29	21.5		
Delinquent girls Non-delinquent girls	God	53	29.69	19.3	4.4	p < .01
		49	16.40	9.7		
Delinquent girls Non-delinquent girls	Wandering	53	42.67	11.7	2.79	p < .01
		49	32.9	21.4		
Delinquent girls Non-delinquent girls	Conscience	53	37.69	16.4	4.00	p < .01
		49	28.09	7.4		
Delinquent girls Non-delinquent girls	Alcohol	53	32.84	23.4	2.81	p < .01
		49	22.41	12.8		
Delinquent girls Non-delinquent girls	Future	53	34.85	17.2	4.94	p < .01
		49	20.30	11.7		

The Table 18 shows the Mean, SD, Mean difference and CR worked out for the concepts under the area "Personal". In the case of delinquent girls and non-delinquent girls, the concepts 'God', 'Wandering', 'Conscience', 'Alcohol' and 'Future' are significant. In all these cases, the delinquent girls have scored high. The only non-significant concept is 'Sin'. Both the non-delinquents and delinquent girls view this concept in the same meaning.

The Table showing the Mean difference, SD, and CR for the concepts pertaining to the area 'Home' is given below.

TABLE 19

Significance of the mean differences in the scores on concepts pertaining to "Home" area between Delinquents and Non-delinquents boys

Sample	Concept	N	Mean	SD	CR	Level of Significance
Delinquent boys Non-delinquent boys	Mother	56 50	24.57 23.84	1.86 4.20	2.49	p < .05
Delinquent boys Non-delinquent boys	Family	56 50	27.46 25.78	11.27 8.7	0.89	Not significant
Delinquent boys Non-delinquent boys	Father	56 50	31.17 21.12	11.9 8.4	5.28	p < .01
Delinquent boys Non-delinquent boys	Step-mother	56 50	37.19 37.66	8.4 20.3	0.15	Not significant
Delinquent boys Non-delinquent boys	Marriage	56 50	27.73 24.10	12.5 6.6	2.10	p < .01
Delinquent boys Non-delinquent boys	Siblings	56 70	29.39 22.66	12.9 11.5	2.92	p < .01

The following concepts in the area of 'Home' are significant in the case of delinquent boys and non-delinquent boys. The concepts of 'Mother', 'Father', 'Marriage, and 'Siblings' show a significant difference among delinquent boys and non-delinquent boys. The concepts which are not significant are 'Family' and 'Step mother'.

The significance of the concepts 'Mother', 'Father', and Marriage are all in the expected direction. But concepts of 'Family' and 'Step mother' which were generally reported to be important in all the delinquent studies, are found to be of same semantic value for both delinquent and non-delinquent groups. The finding about these two concepts are not in the expected direction.

The Table showing the Mean, Mean differences, SD, and CR for the concepts pertaining to the area 'Home' for non-delinquent and delinquent girls is given below.

TABLE 20

Significance of the mean differences in the scores on the concepts pertaining to 'Home' area between Delinquents and Non-delinquent girls

Sample	Concept	N	Mean	SD	CR	Level of Significance
Delinquent girls Non-delinquent girls	Mother	53	26.86	19.4	3.63	p < .01
		49	16.58	8.2		
Delinquent girls Non-delinquent girls	Family	53	29.73	18.3	4.15	p < .01
		49	18.1	9.3		
Delinquent girls Non-delinquent girls	Father	53	31.30	16.2	3.33	p < .01
		49	17.01	6.8		
Delinquent girls Non-delinquent girls	Step-mother	53	42.28	36.6	1.22	Not significant
		49	34.33	29.6		
Delinquent girls Non-delinquent girls	Marriage	53	36.16	14.3	2.74	p < .01
		49	26.01	22.3		
Delinquent girls Non-delinquent girls	Siblings	53	34.30	18.9	4.21	p < .01
		49	20.40	1.6		

The concepts which are significant in the case of delinquent and non delinquent girls under the area 'Home' are: 'Mother', 'Family', 'Marriage' and 'Siblings'. The differences in these concepts between the groups are significant at .01 level of probability.

The concept which is not significant in the area 'Home' among girls is 'Step mother' which again is not in the expected direction. In a few delinquency studies 'Step mother' relationship is found to be an important aspect. The results from semantic differential does not support this.

The Table showing the Mean, Mean difference, SD, and CR for the concepts pertaining to the area 'School' in the case of non-delinquent boys and delinquent boys is given below. The concept 'Teacher' is highly significant while the concept 'School' is not significant though the delinquent boys have scored high on this concept.

TABLE 21

*Significance of the mean differences in the scores on the concepts
"School, teacher" and total concepts of Delinquents and
Non-delinquent boys*

Sample	Concept	N	Mean	SD	CR	Level of significance
Non-delinquent boys Delinquent boys	School	56 50	24.95 21.38	14.7 7.6	1.7	Not significant
Delinquent boys Non-delinquent boys	Teacher	56 50	27.87 21.68	11.6 7.8	3.25	$p < .01$
Delinquent boys Non-delinquent boys	Total concepts	56 50	705.46 591.88	113.1 139.1	8.64	$p < .05$

The Table showing the significance of the mean difference for the concepts pertaining to 'school' in the case of non-delinquent girls and delinquent girls is given below.

TABLE 22

Significance of the mean differences in the scores on the concepts 'School, Teacher' and total concepts between Delinquents and Non-delinquent girls

Sample	Concept	N	Mean	SD	CR	Level of significance
Delinquent girls	School	53	28.09	15.7	3.26	$p < .01$
Non-delinquent girls		49	19.60	9.8		
Delinquent girls	Teacher	53	30.37	14.7	3.54	$p < .01$
Non-delinquent girls		49	20.10	14.5		
Delinquent girls	Total concepts	53	741.90	384.8	3.42	$p < .01$
Non-delinquent girls		49	553.30	106.5		

The concepts namely 'School' and 'Teacher' which comprise the area 'School' are significant at .01 level.

The C.R. worked out for the total score of the whole test of semantic differential, discloses high significance both in the case of delinquent boys and non-delinquent boys and delinquent girls and non-delinquent girls.

Sign Test

Attitude scores determined by the Semantic differential are taken up for further analysis in order to measure the meaning and

attitude towards the twenty concepts which cover the broader areas of Social, Personal, Home and School. Among the twenty concepts used, the concepts 'Stealing', 'Gang', 'Sin' 'Alcohol' and 'Step mother' are found to be negatively evaluated by the subjects. In order to find out whether there is any difference between the mean attitude scores of delinquent and the non delinquent groups, sign tests were computed. The results showed significant difference between delinquent and non-delinquent boys for the concepts 'Sin' and 'Gang'. In the case of delinquent and non delinquent girls concepts 'Stealing' and 'Alcohol' are found to be significant. The rest of the concepts though positively evaluated for intensity was found to be significantly lesser for delinquent groups than for the non-delinquent groups.

TABLE 23

Sign test for the differences between mean ratings generated by Non-delinquents and Delinquents for the twenty concepts used in the study.

No.	The Concept	Mean rating		rs value	Level of significance	Mean rating		rs value	Level of significance
		Del. boys	Non-del boys			Del. girls	Non-del. girls		
1.	Mother	+1.57	+2.04	12	P<.01	+1.56	+2.10	13	P<.01
2.	Cinema	+1.11	+1.20	20	NS	+ .94	+1.36	19	NS
3.	Money	+1.23	+1.12	24	NS	+ .90	+1.41	21	NS
4.	Sin	+ .18	— .86	11	P<.01	— .30	— .74	21	NS
5.	Family	+1.29	+1.82	15	P<.01	+1.36	+2.11	11	P<.01
6.	Stealing	— .51	—1.43	18	NS	— .40	—1.48	16	P<.05
7.	Friends	+1.33	+1.76	18	NS	+1.38	+1.91	10	P<.01
8.	God	+1.43	+2.00	13	P<.01	+1.66	+2.11	16	P<.05
9.	Father	+1.14	+2.02	12	P<.01	+1.36	+2.26	16	P<.05
10.	School	+1.47	+2.25	13	P<.01	+1.68	+2.26	11	P<.01
11.	Teacher	+1.40	+1.99	14	P<.01	+1.64	+2.33	12	P<.01
12.	Roaming	+ .35	— .27	18	NS	— .25	— .13	21	NS
13.	Conscience	+1.21	+1.42	14	P<.01	+1.24	+2.02	14	P<.01
14.	Step mother	+ .58	+1.54	19	NS	+ .5	+ .1	25	NS
15.	Marriage	+1.25	+1.73	15	P<.01	+ .93	+1.75	11	P<.01
16.	Siblings	+1.35	+1.93	13	P<.01	+1.51	+2.13	15	P<.01
17.	Police	+ .63	+1.28	23	NS	+ .37	+1.40	16	P<.05
18.	Drinks	— .66	—1.56	19	NS	+ .81	+1.66	16	P<.05
19.	Future	+1.34	+1.72	16	P<.05	+1.01	+1.90	13	P<.01
20.	Gang	— .61	—1.77	17	P<.05	— .55	—1.38	25	NS

Intercorrelations between the variables studied

The inter-correlations among the various variables studied in the present study are presented in order to see if characteristic configurations exist distinguishing the delinquents from the non-delinquents. However, it is to be added that this analysis is obviously limited in its scope and is not to be considered as a substitute for factor analysis.

The results of the tests administered to the delinquent boys have yielded the intercorrelation matrix presented in Table 24. An analysis of the matrix shows that a positive significant correlation exists between 1. Neuroticism and Criminal Propensity; 2. Psychoticism on the one hand and Level of Aspiration in Health, and Dissonance, on the other hand; 3. Suggestibility and Self Ideal congruence; 4. Self Ideal Congruence and Consonance and Dissonance. The results also show a significant negative correlation between Extraversion and Academic Aspiration, in the delinquent boys sample.

The results of the tests administered to the non-delinquent boys show the following significant relationship among the different variables. The resulting intercorrelation matrix is given in Table 25.

1. Neuroticism and Criminal Propensity; 2. Criminal Propensity and Self Ideal Congruence; 3. Level of Aspiration in Health and Academic Aspiration; 4. Academic Aspiration and Dissonance; 5. Fluency and Dissonance.

The results of the intercorrelations obtained on the samples of delinquent girls are presented in Table 26. From the table it may be seen that there is the significant relationship between 1. Neuroticism on the one hand and Criminal Propensity and Incongruence effect on the meaning of certain concepts on the otherhand; 2. Level of Aspiration in Home and Level of Aspiration in Health; 3. Cognitive Dissonance. The results also show a negative relationship between Neuroticism on the one hand and Suggestibility and Self Ideal Congruence on the otherhand.

The results of the analysis of intercorrelations among the various variables as obtained on the sample of non-delinquent girls have yielded the intercorrelation matrix presented in Table 27. The analysis yields the following inferences: A significant correlation exists between 1. Neuroticism on the one hand and Psychoticism and Level of Aspiration on the other hand 2. Psychoticism and Criminal Propensity; 3. Criminal Propensity and Level of Aspiration in Health and 4. Self Ideal Congruence and Intelligence. The results also show a significant negative relationship between Cognitive Dissonance and Level of Aspiration in Home.

The above analysis shows interesting differences among the delinquent and non-delinquent samples in that different types of relationships among the variables are obtained in different samples studied. It is worth while to go deeper in this analysis in terms of factor analysis. In fact factor analysis has been done and the results are reported in *Studies in Psychology*, (1974), Mysore University.

Analysis of Personal Data of Delinquents in Comparison With Non-Delinquents

In order to test the significance of the association of the different personal and social attributes with delinquency, the data collected using the personal data sheet were treated with chi-square technique.

Parents Educational Level :

Table 28 presents comparison of delinquents and non-delinquents with respect to their fathers' education.

TABLE 28

Comparison of Delinquents and Non-delinquents on Father's Education.

Fathers' Education	Boys				Girls			
	Delinquent	Non Delinquent	Total	χ^2	Delinquent	Non Delinquent	Total	χ^2
College	0	1	1		1	9	10	
High School	12	16	28		6	26	32	
Middle School	6	18	24		13	29	33	
Illiterate	49	11	60		34	3	37	
Total	67	46	113	30.61	54	58	112	56.09

Level of Significance $p < .01$ $p < .01$

The Chi square related to the association between delinquency and fathers' education is highly significant in both the samples of boys and girls. The table 28 above shows that more number of illiterates are found among the fathers of the delinquents than among the non-delinquents. Same trends are seen in the case of college education and also in high School education. Hence it may be concluded that delinquency is associated with the low level of father's education in general.

The results of the analysis relating to the of educational status of mothers of the delinquents are presented in Table 29.

TABLE 29

Comparison of Delinquents and Non-delinquents on Mother's Education.

Mothers' Education	Boys				Girls			
	Delinquent	Non Delinquent	Total	χ^2	Delinquent	Non Delinquent	Total	χ^2
College	3	2	5		1	0	1	
High School	8	12	20		22	9	31	
Middle School	7	37	44		31	14	45	
Illiterate	34	11	45		10	23	33	
Total	52	62	104	33	64	46	110	17.44

Level of significance $p < .01$ $p < .01$

The chi squares in the table are significant and show that there is an association between delinquency and education of mothers of the children. The frequencies presented in table 29 show that more number of illiterates are seen among the mothers of the delinquent girls. However the trends of the differences in the case of the boys is not in line with the general expectation. That is, there are more illiterate mothers in the non-delinquent group of girls than in delinquent group of girls.

Parent's occupation:

The analysis of the association between delinquency and occupation of father of the juvenile is presented in Table 30.

TABLE 30

Comparison of Delinquents and Non-delinquents on Fathers' Occupation.

Fathers' Occupation	Boys				Girls			
	Delin-quent	Non Delin-quent	Total	χ^2	Delin-quent	Non Delin-quent	Total	χ^2
Unskilled	10	4	14		16	3	19	
Skilled	18	9	27		7	6	13	
Factory work	4	1	5		3	6	9	
Own Business	12	12	24		10	7	17	
Clerical work	2	2	4		3	4	7	
Public Service	11	8	19		10	19	29	
Unemployed	3	0	3		1	3	4	
Total	60	36	96	7.96	50	48	98	13.97

Level of significance NS

NS

The insignificant chi squares in the table show that delinquency is not associated with the occupation of the father of the juvenile.

Family income :

The income per head of the juveniles family was analysed for its association with delinquency and the results are shown in table 31.

TABLE 32

Comparison of Delinquents and Non-delinquents on parental handicap

Degree	Boys				Girls			
	Delin- quent	Non delin- quent	Total	χ^2	Delin- quent	Non delin- quent	Total	χ^2
Physical	3	3	6		0	2	2	
Mental	1	0	1		4	1	5	
Drunkenness	18	0	18		8	5	13	
Criminality	1	6	7		2	5	7	
Total	23	9	32	20.22	14	13	27	5.00

Level of significance $p < .01$

Not significant

As can be seen in the above table delinquency is found to be associated with alcoholism of parents in the case of boys. The frequencies show that the incidence of drunkenness is more among the parents of delinquents than among the parents of non delinquents. Similar trend in drunkenness is seen even in the case of girls. However, the chi square relating to girls has failed to achieve the acceptable level of significance.

Order of Birth:

The order of birth of the juveniles was tested for its association with delinquency. The results of the analysis are presented in table 33.

TABLE 33

*Comparison of Delinquents and Non-delinquents of
Order of Birth*

Degree	Boys				Girls			
	Delin- quent	Non Delin- quent	Total	χ^2	Delin- quent	Non Delin- quent	Total	χ^2
1st Born	25	13	38		20	9	29	
2nd Born	16	12	28		12	13	25	
3rd Born	9	7	16		10	15	25	
4th Born	6	5	11		14	5	19	
5th Born above	12	11	23		14	23	37	
Total	68	48	116	2.53	70	65	135	11.31

Level of significance NS

$p < .05$

The results show a significant chi square only in the case of girls. The trend of the distribution shows greater incidence of first born children and fourth born children among delinquents than among non delinquents. The results further show lesser incidence of fifth born and later born children among delinquent girls as compared to non delinquent girls.

The strength of the siblings of the juveniles was also tested for its association with delinquency and the results of the analysis are given in table 34.

TABLE 34

Comparison of Delinquents and Non-delinquents on number of siblings

Degree	Boys				Girls			
	Delin- quent	Non Delin- quent	Total	χ^2	Delin- quent	Non Delin- quent	Total	χ^2
1 to 3	13	16	29		18	21	39	
4 to 6	39	23	62		27	33	60	
Above 6	16	9	25		22	11	33	
Total	68	48	116	3.98	67	65	132	7.55

Level of Significance NS

$p < .05$

The results show a significant Chi square only in the case of girls. The trend of the results in this case show more incidence of having greater number of siblings in the delinquent groups than in the non delinquent groups.

The association between delinquency and the size of the family of the juvenile has been tested for its significance and the results are given in table 35.

TABLE 35

Comparison of Delinquents and Non-delinquents on size of the family

Degree	Boys				Girls			
	Delin- quent	Non Delin- quent	Total	χ^2	Delin- quent	Non Delin- quent	Total	χ^2
Large	18	10	28		17	23	40	
Medium	37	19	56		30	34	64	
Small	13	19	32		20	8	28	
Total	68	48	116	9.29	67	65	132	7.65

Level of significance $p < .08$

$p < .05$

The Chi square in the case of boys is highly significant and indicates that incidence of delinquency is more in the large and medium

size families. The Chi square relating to girls is also significant but in the opposite direction. That is incidence of delinquency in the case of girls is found more in small families as compared with non delinquent group of girls.

Conduct Standards

The results of the analysis of data relating to conduct standards of home of the juvenile are given in table 36.

TABLE 36
Comparisons of Delinquents and Non-delinquents on conduct standards of home

Attribute	Boys				Girls			
	Delinquent	Non Delinquent	Total	χ^2	Delinquent	Non Delinquent	Total	χ^2
Good	37	32	69		32	40	72	
Not Good	31	16	47		36	25	61	
Total	68	48	116	1.75	68	65	133	2.80
Level of significance				NS	NS			

The results show no significant association between delinquency and conduct standards of the home of the juveniles.

Juvenile's Attitude to Parents

The analysis relating to association between juvenile's view of the parent and delinquency is presented in table 37.

TABLE 37
Comparison of Delinquents and Non-delinquents on juveniles view of the parent

Degree	Boys				Girls			
	Delinquent	Non Delinquent	Total	χ^2	Delinquent	Non Delinquent	Total	χ^2
Dominant	30	27	57		42	36	77	
Submissive	35	20	55		27	29	56	
Total	65	47	112	1.39	69	64	133	.52
Level of significance				NS	NS			

The Chi squares in both the cases of boys and girls are not significant and these show that there is no association between incidence of dominant and submissive views and delinquency in the present context.

Cohesiveness of Family

The results of the analysis of data relating to cohesiveness of the family of the juveniles are given in table 38.

TABLE 38

Comparison of Delinquents and Non-delinquents on Cohesiveness of the Family

Degree	Boys				Girls			
	Delinquent	Non Delinquent	Total	x^2	Delinquent	Non Delinquent	Total	x^2
Good	27	38	65		23	24	47	
Fair and poor	41	10	51		48	41	89	
Total	68	48	116	17.92	71	65	136	.31

Level of Significance $p < .01$

NS

The results show that the Chi square is significant only in the case of boys and not in the case of girls. The frequencies in the table show lower incidence of good cohesiveness and larger incidence of poor cohesiveness among delinquent boys.

Relationship Between Parents

The analysis of the data for assessing the significance of the association between delinquency and relationship between juveniles father and mother is presented in table 39.

TABLE 39

Comparison of Delinquents and Non-delinquents on relationship between father and mother

Degree	Boys				Girls			
	Delin- quent	Non Delin- quent	Total	x^2	Delin- quent	Non Delin- quent	Total	x^2
Good	38	31	69		23	23	46	
Poor	30	17	47		38	34	72	
Total	68	48	116	.88	61	57	118	.086

Level of significance NS

NS

The Chi squares in both the cases of boys and girls have failed to reach statistical significance, showing no association between incidence of delinquency and good or poor type of relationship between juveniles' parents.

Broken Home Conditions

The data relating to of broken home conditions were also analysed using Chi square technique and the results are presented in table 40.

TABLE 40

Comparison on Delinquents and Non-Delinquents on Broken Home conditions

	Boys				Girls			
	Delin- quent	Non Delin- quent	Total	x^2	Delin- quent	Non Delin- quent	Total	x^2
Yes	50	10	60		33	15	49	
No	18	38	56		36	50	86	
Total	68	48	116	31.29	69	65	134	8.98

Level of significance $p < .01$

$p < .01$

The results in table 40 show a definite association between delinquents home condition. The Chi squares in both boys' and girls samples

are highly significant and the frequencies in the table show that more incidence of broken home condition is present among delinquents than among non delinquents. The results are consistent in both the cases of boys and girls.

Emotional Relationship With Parents

Analysis was also done in regard to the association between delinquency and the type of affectionate tendency of the father toward the juvenile. The results of the analysis are shown in table 41.

TABLE 41
Comparison of Delinquents and Non-delinquents on affection of father for the Juvenile

Degree	Boys				Girls			
	Delin- quent	Non Delin- quant	Total	x^2	Delin- quent	Non Delin- quent	Total	x^2
Warm	52	39	91		49	76	27	
Not warm	17	9	26		18	27	45	
Total	69	48	117	.56	67	54	121	6.85
Level of significance			NS					$p < 0.01$

The results show a highly significant Chi square only in the case of girls. More number of delinquent girls have reported a warm relationship with their fathers than non delinquent girls.

The results of the analysis of the association between delinquency and the type of emotional ties with father are given in table 42.

TABLE 42
Comparison of Delinquents and Non-delinquents on Emotional tie of the individual to father

Degree	Boys				Girls			
	Delin- quent	Non Delin- quent	Total	x^2	Delin- quent	Non Delin- quent	Total	x^2
Attached	52	44	96		43	24	67	
Indifferent or Not attached	18	4	22		26	22	48	
Total	70	48	118	5.67	69	46	115	1.16
Level of significance			$p < .05$					NS

The Chi square as can be seen in the above table is significant in the case of boys and not in the case of girls. The trends of the frequency distribution in the case of boys show that more number of non delinquents report attachment towards their fathers than delinquents.

Analysis similar to the one cited above was done in the case of emotional tie with mother also and the results of the analysis are presented in table 43.

TABLE 43

Comparison of Delinquents and Non delinquents on Emotional tie of the individual to mother

Degree	Boys				Girls			
	Delin- quent	Non Delin- quent	Total	x^2	Delin- quent	Non Delin- quent	Total	x^2
Attached	64	48	112		42	37	79	
Indifferent or Not attached	6	0	6		27	26	53	
Total	70	48	118	4.33	69	63	132	.58

Level of significance

$p < .05$

NS

The results show a significant trend in the case of boys only. The frequencies in the table show that all the non delinquents have reported attachment to their mother while a significant proportion of delinquents have reported indifference toward their mother.

Relationship With Siblings

The data relating to affection of the juveniles toward their siblings were also treated with Chi square technique and the results are given in table 44.

TABLE 44

Comparison of Delinquents and Non delinquents on Affection towards siblings

Degree	Boys				Girls				
	Delin- quent	Non Delin- quent	Total	x^2	Delin- quent	Non Delin- quent	Total	x^2	
Warm	55	41	96		49	15	64		
Indifferent or Not warm	5	6	11		20	48	68		
Total	60	47	107	.56	69	63	132	29.39	
Level of significance			NS				p<.01		

The results show a high significant Chi square only in the case of girls. However the frequencies in the case of non-delinquents is exactly in the opposite direction to what is expected. The table shows more number of delinquent girls to report a warm relationship towards siblings than non delinquent girls.

The Social Status of the Community

The status of the community of the juvenile was also analysed for its association with delinquency. The results of the analysis are given in table 45.

TABLE 45

Comparison of Delinquents and Non delinquents on the status of their community

Degree	Boys				Girls				
	Delin- quent	Non Delin- quent	Total	x^2	Delin- quent	Non Delin- quent	Total	x^2	
Privileged	29	31	60		22	35	57		
Under pre- vileged	39	16	55		51	28	79		
Total	68	47	115	6.05	73	63	136	8.97	
Level of significance			p<.05				p<.01		

The results in the table 45 show significant Chisquares in both the cases of boys and girls. The Chisquare relating to boys is significant at .05 level and the respective frequencies show that proportionately more number of delinquents hail from under privileged communities.

Parents Concern for the Juveniles (Juveniles Estimate)

The data relating to the juveniles' estimate of their mothers' concern were also analysed for their association with delinquency. The results of the analysis is given in table 46.

TABLE 46

Comparison of Delinquents and Non delinquents on their estimate of mothers concern for their welfare

Degree	Boys				Girls				
	Delin- quent	Non Delin- quent	Total	x ²	Delin- quent	Non Delin- quent	Total	x ²	
Good	38	45	83		20	51	71		
Not good	31	3	34		43	11	54		
Total	69	48	117	20.44	63	62	125	32.49	
Level of significance			p < .01				p < .01		

The results presented above show highly significant Chisquares in the case of boys as well as girls. The trend of the results is consistent in both the groups and shows more number of delinquents to perceive their mothers' concern to be not good as compared with non delinquents.

Analysis similar to the one reported above was done in the case of juveniles' estimate of their fathers concern also. The results are presented in table 47.

TABLE 47

Comparison of Delinquents and Non-delinquents on their estimate of father's concern

Degree	Boys				Girls			
	Delin- quent	Non Delin- quent	Total	x^2	Delin- quent	Non Delin- quent	Total	x^2
Good	23	36	59		17	37	54	
Not good	35	12	47		43	16	59	
Total	58	48	106	13.29	60	53	113	19.40

Level of significance $p < .01$

$p < .01$

The results show highly significant Chisquare values in the case of boys as well as girls. The trend of the distributions of frequencies in both the cases is consistent and show more number of delinquents to estimate their fathers' concern for them as not good as compared with non delinquents.

Attitude Towards School

The juveniles' attitude toward school was also tested for its association with delinquency and the pertinent data are presented in table 48.

TABLE 48

Comparison of Delinquents and Non-delinquents on attitude towards school

Degree	Boys				Girls			
	Delin- quent	Non Delin- quent	Total	x^2	Delin- quent	Non Delin- quent	Total	x^2
Accepts	32	38	70		41	38	79	
Dislikes	33	10	43		30	26	56	
Total	65	48	113	10.49	71	64	135	.03

Level of significance $p < .01$

NS

The results in table 48 show a highly significant Chisquare in the case of boys only. The distribution of frequencies show no marked difference in acceptance and rejection of school by delinquents. However, the distribution in the case of non-delinquent boys show that definitely a larger proportion of non-delinquents to be characterised by acceptance than non acceptance.

Relationship with Schoolmates

The association between juveniles' schoolmates and incidence of delinquency has also been analysed and the results of the analysis is given in table 49.

TABLE 49

Comparison of Delinquents and Non-delinquents on relation to Schoolmates

Degree	Boys			χ^2	Girls			χ^2
	Delin- quent	Non Delin- quent	Total		Delin- quent	Non Delin- quent	Total	
Good	49	27	76		44	50	94	
Not good	17	21	38		28	13	41	
Total	66	48	114	4.04	72	63	135	5.29

Level of significance $p < .05$

$p < .05$

The results presented above show significant Chisquares both in the case of boys and girls. However the trend of the frequency distribution is found to differ in the two cases. The data show more number of delinquent boys to report good relationship with schoolmates while more number of delinquent girls report their relationship with schoolmates to be not good. In this aspect there is difference between delinquent boys and delinquent girls.

Vocational Ambition

The vocational ambition of the juveniles was also tested for its association with delinquency. The results of the analysis are given in table 50.

TABLE 50

Comparison of Delinquents and Non-delinquents on Vocational Ambition

Degree	Boys				Girls			
	Delin- quent	Non Delin- quent	Total	χ^2	Delin- quent	Non Delin- quent	Total	χ^2
Adventurous	11	20	31		60	9	69	
Intellectual	58	27	85		8	49	57	
Total	69	47	115	10.11	68	58	126	43.51

Level of significance $p < .01$

$p < .01$

The results of the analysis presented above show highly significant Chi squares in the case of both boys and girls. However the pattern of frequencies of distributions in both the cases differ among themselves. The frequencies of boys show more incidence of ambitions for intellectual type of vocations than for adventurous types. The reverse trend is seen in the case of girls. Incidence of ambition for adventurous type of vocation is seen more among delinquent girls.

Movie Attendance

Analysis was also done on movie attendance of the juveniles and its association with delinquency. The results of the analysis are given in table 51.

TABLE 51

*Comparison of Delinquents and Non-delinquents on
Movie Attendance*

Degree	Boys				Girls			
	Delin- quent	Non Delin- quent	Total	χ^2	Delin- quent	Non Delin- quent	Total	χ^2
Good	50	7	57		41	7	48	
Poor	16	41	57		21	57	78	
Total	66	48	114	41.59	62	64	126	40.67

Level of significance $p < .01$

$d < .01$

The results of the analysis presented above show highly significant Chi squares both in the case of boys and girls. The trends of the distribution of frequencies are consistent in both the cases and show incidence of movie attendance to be more among delinquents than among non delinquents.

Scalogram Analysis

Scalogram analysis is a new approach which affords adequate basis for quantifying qualitative data. This approach, unlike other statistical methods such as critical ratios, biserial correlations, factor analysis etc., gives a complete picture of the results of the data.

For the Scalogram analysis, a plastic moulded mechanical device is designed in the lines of Guttman's Scalogram form board. This was used to rank the delinquents who answered 'yes' to those questions in the checklist in the descending order. That is, those who answered 'yes' to maximum number of questions will be on the top while those who answered 'yes' to minimum number of questions will be at the bottom. Scalogram also facilitates checking up whether the responses obtained through checklist are scalable and whether

they are tapping the common content. Those items which are scalable were taken as valid items and other items were rejected.

The reproducibility coefficient was calculated and it was found that many items are scalable and reproducible. For delinquent boys and girls, the reproducibility co-efficients are .90 and .90 respectively.

The result derived from Scalogram are found to be in agreement with the findings of the previous studies on delinquents. The results also indicate that the factors for delinquency among boys are different from that of girls. This is due to the fact that the samples drawn for the present study are different.

The delinquents were compared with nondelinquent groups to see whether there is any difference between them in those factors which emerged out of Scalogram analysis. The results obtained from Scalogram were validated against the results obtained by Chi square technique.

The results on the whole reflect more pathogenic factors in the delinquents' home environment as compared to that of non delinquents. This confirms our expectation that social environment will have adverse effect on juveniles leading them to delinquency. The results are in line with a number of studies (Burt 1944; Barnes and Teeters, 1945; Glueck and Glueck, 1950; Sutherland and Cressy, 1955; Shanmugam, 1956, 1957; Rajangam, 1957; Muthayya and Bhaskaran, 1964; Govindarajan, 1966; Shanmugam, 1972; Cortes and Gatti, 1972). The results of the analysis consistently show that educational status of father, strength of family, juveniles relationship with parents, under privileged community background, juveniles estimate of their parents concern toward their welfare, and movie attendance have significant relationship with delinquency. Sex differences have also been obtained in a number of sociological variables studied in the present context. Parental handicap, income, cohesiveness of the family and emotional tie with father and mother distinguish delinquent boys from non delinquent boys. These variables have failed to distinguish the delinquent girls from non delinquent girls. However mothers' education, order of birth, and affection to siblings, distinguish delinquent boys from non delinquent

girls, but do not differentiate delinquent boys from non delinquent boys. Further interesting sex differences have been obtained in the case of juveniles' attitude toward schoolmates and vocational ambitions. Delinquent boys show a significant preference for their schoolmates and have high vocational ambitions for intellectual occupations. This may indicate an unrealistic vocational ambition in the case of delinquents in view of the fact delinquent boys generally have low academic performance. In the case of girls it is found that the delinquents consider their relationship with schoolmates to be not good and they report high vocational ambitions relating to adventurous type of occupations. This may be due to the differential treatment of parents of the two sexes. Normally in the Indian background girls are not allowed free movement. In fact their activities are confined to home, particularly after they attain puberty. Moreover girls are generally trained to look forward to marriages as their aim and end in life. Seeing their own brothers, having different treatment and enjoying more freedom of movement, girls seeking adventurous vocation is understandable. In fact, the act of sex delinquency in the case of girls itself is a pathological satisfaction of their desire for adventure. The occupation of the father, conduct standard of home, juveniles view of the parents, and juveniles attitude to school, have been found to have no association with delinquency. These results are not in the expected direction, in terms of the findings of workers in the field of delinquency in the west. This may probably be attributed to typical cultural factors.

SUMMARY AND CONCLUSIONS

The present study has attempted to investigate a number of psychological and social factors associated with delinquency, in line with the relevant theoretical principles a number of variables were chosen for the investigation and the following hypotheses were generated and tested on a sample of 150 institutionalised delinquents (divided equally into both sexes) and 150 non-delinquents (divided equally into both sexes) studying in Corporation Schools in the State of Tamil Nadu.

1. Delinquents will be less in General Intelligence and greater in Creativity as compared to non delinquents.
2. Delinquents will be higher in Extraversion, Neuroticism, Psychoticism and Criminal Propensity than non delinquents.
3. Delinquents will be more Suggestible than non delinquents.
4. Delinquents will have low level of Aspiration than the non delinquents.
5. Delinquents will have more Ideal-Self Incongruity and will also have more negative attitudes in their evaluation of concepts, related to the social milieu, than non delinquents.
6. Delinquents will have greater Cognitive Dissonance than non-delinquents.
7. The Social environment of the delinquents will reflect more pathology than that of the non-delinquents.

The above hypotheses were tested by using Raven's Standards Progressive Matrices, the Wallach and Kogan Creativity instruments

The Personality Inventory of Eysenck, Whipple's Suggestibility Test, Cantrills' Ladder Test of Level of Aspiration, the Ideal Self Congruence Test using adjective check list, the Osgood Semantic Differential and the Cognitive Dissonance Test, designed after Jacker and the Personal Schedule constructed especially for the present study to elicit information regarding social environment.

The test of significance for Mean and test of significance for Chi squares, were used in appropriate context. Extensive analysis has been done on the Semantic Differential data using t tests, D statistics and Sign Test wherever they were considered appropriate. A Scalogram analysis has also been used in the analysis of social psychological factors.

The results of the present study consistently confirm the hypotheses related to General intelligence, Creativity, Extraversion, Suggestibility, Level of Aspiration in Health, Ideal Self Congruence, the meaning of certain concepts resulting from the influence of the principle of Congruity, and Cognitive Dissonance. The results also partially support the hypotheses related to Criminal Propensity, Level of Aspiration in Home life and Health.

It must be stated here that while formulating hypothesis regarding suggestibility Eysenck's view regarding primary suggestibility is mentioned. According to Eysenck, extraverted neurotic delinquents will be less suggestible than the non-delinquents. But the hypothesis is that delinquents will be more suggestible than the non-delinquents which is not based on Eysenck's theory. This was based on the previous results on social suggestibility and delinquency. Therefore, Eysenck's theory is not tested in this hypothesis. The result also is not a proof against Eysenck's view.

The results also show that the concepts *Stealing, Friends, Police, Gang, Wandering, Alcohol, Future, Mother, Father, Marriage, Siblings and Teacher* are significantly given distinct different meanings by the delinquents and non delinquents. The delinquents consistently evaluate these concepts in a way which is different from the non delinquents. Further analysis shows that in spite of the gross differences in the meaning of particular concepts the delinquents and non delinquents employ essentially the same frame of reference in making their judgements.

The host of social variables investigated have clearly shown differences between delinquents and non delinquents. The educational status of father, strength of family, relationship with parents, under-privileged community background, estimate of parents' concern and movie attendance are found to be significantly associated with delinquency. Interesting sex differences have also been observed in other variables. Parental handicap, income, cohesiveness of family and emotional tie with father and mother, distinguish delinquent boys from non delinquent boys while mother's education, order of birth and affectionate siblings, distinguish delinquent girls from non delinquent girls. The delinquents are also found to have unrealistic vocational ambition.

In view of the findings of the study it can be stated that delinquency is associated with characteristic factors of cognition, personality and motivation. The present study has shown that psychological theories of personality and cognition motivation can be validly applied in the field of delinquency research.

Conclusion

It may be concluded from this study that the psychological factors contributing to juvenile delinquency are extraversion, neuroticism, psychoticism, and criminal propensity. The other psychological factors are creativity, intelligence, level of aspiration, suggestibility, cognitive dissonance and unfavourable attitude towards family.

The social and personal attitudes contributing to delinquency are educational level of parents, order of birth, broken home conditions and emotional ties in the family.

Educational status of father, juveniles relationship with parents, under privileged community background, juveniles estimate of their parents concern towards their welfare, and movie attendance have significant relationship with delinquency.

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