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The role of the family in delinquency causation: an interactional view

James W. Burfeind
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THE ROLE OF THE FAMILY IN DELINQUENCY CAUSATION:
AN INTERACTIONAL VIEW

by

JAMES W. BURFEIND

A dissertation submitted in partial fulfillment of the
requirements for the degree of

DOCTOR OF PHILOSOPHY
in
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Portland State University

1984

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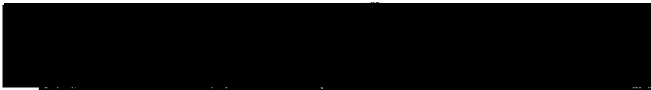
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AN ABSTRACT OF THE DISSERTATION OF James W. Burfeind for the Doctor of Philosophy in Urban Studies presented June 22, 1984.


Title: The Role of the Family in Delinquency Causation: An Interactional View.

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American society traditionally has held the family responsible for the socialization and social control of children, and when youngsters get into trouble the causal finger of blame is pointed at the family. No wonder then that a recurrent issue within the study of delinquent behavior has been the precise etiological role of the family. This thesis begins with an historical examination of the different approaches taken in the sociological study of delinquency and the family.

This research investigated whether "interactive effects" are important in conceptualizing and understanding the family's etiological role. The concept of interaction is based upon the assumption that

variables may not have causal efficacy within themselves, entirely independent of other variables. Variable interaction occurs when the effect of an independent variable varies depending on the value of another independent variable.

This study utilized questionnaire data gathered as a part of the Richmond Youth Study by the Survey Research Center (University of California, Berkeley) in 1965. The original stratified random sample consisted of 5,545 junior and senior high school students. While this sample included both male and female, black and nonblack adolescents, the present analysis focused on the 1,588 nonblack subsample. Survey data was available on a wide variety of youth-related issues, including self-reported delinquent activity and family conditions.

This study analyzed the interactive effects of five family dimensions in relation to four other causal variables commonly associated with delinquency involvement: community social disorganization, delinquent friends, attachment to peers, and delinquent definitions. Analysis of variance, a multivariate statistical model, was used to distinguish significant independent and interactive effects. Identified interactive effects were then examined through tabular analysis in order to provide a more precise understanding of how these variables interact in affecting delinquency involvement. Finally, the general notions of variable interaction which are implied by existing theories were assessed.

The data analysis revealed that family factors influenced delinquency in different ways. The level of an adolescent's attachment to father was found to be independently related to delinquent activity after controlling for all other effects (independent and interactive).

Paternal discipline had an interactive effect on delinquency such that the type of paternal discipline influenced the effect that community social disorganization and number of delinquent friends had on delinquency; in turn, paternal discipline was significantly related to delinquency involvement under certain conditions of these same variables. The other three family factors, however, did not have a significant independent or interactive effect on delinquency involvement.

These findings suggest that causal explanation and research dealing solely with direct, independent effects may minimize and oversimplify the causal role of certain family factors. At least a small portion of the family's influence on delinquency involvement is through interactive effects with non-familial variables. Existing theories have failed to actively consider such interactive effects. Furthermore, the general notions of variable interaction which are implied by current theories failed to find support in the data of the present study. Thus, future theory and research would likely benefit from consideration of interactive effects.

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Finally, my wife, Linda was able to "hold fast to dreams", even during the day to day drudgery. There was never any doubt of her support and love!

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CHAPTER I

INTRODUCTION

Students of delinquent behavior can easily find a plethora of statements relating youthful waywardness to poor family conditions, thus, consideration of the family's role in delinquent behavior is nothing new or sudden. The persistence of this popular notion is largely due to the view that "In almost every society, the family has the most intensive and consistent contact with children from infantile dependence through at least the preadolescent stage of life" (Gibbons, 1982:206). However, this is not to imply that the family and its childrearing functions have persisted largely unchanged. In fact, much has been made of the effects of industrialization, urbanization, and other more recent trends of modernization on family life (Shorter, 1975; Bane, 1976; Demos, 1977; Kenniston, 1977; Lasch, 1979; Masnick et al., 1980).

A variety of perspectives exist on the contemporary family as an institution and its centrality to social life. The family is alternatively viewed as besieged by forces of social change (Shorter, 1975; Lasch, 1979), as entering a new era (Bane, 1976; Levitan and Belous, 1981), as a repressive social institution (Lindsey, 1981), or as one which perpetuates traditional values necessary for social life (Kramer, 1983; Berger and Berger, 1984). Currently there is also much speculation over the fate of the "traditional family" in the near future, especially in regard to the new patterns of home

and family life which have recently been observed.¹ However, as Christopher Lasch (1979:xx) observes:

The [traditional] family has been slowly coming apart for more than a hundred years. The divorce crisis, feminism, and the revolt of youth originated in the nineteenth century, and they have been the subject of controversy ever since. Popular controversy in turn has given rise to a tradition of sociological study, which still defines the issues that inform most commentary on the family.

Sociologists have extensively investigated the relationship between juvenile delinquency and the family. The resulting literature spans over three-quarters of a century and now includes "literature on the literature" (Johnstone, 1980:83). Despite such massive attention, the family-delinquency literature is inconclusive and reveals little cumulative development (Johnstone, 1980:83-84). Then, too, there is a great deal of controversy over the family's etiological role. Perspectives range "from the view that the family is the single most important determinant of delinquent behavior to the view that while some association may exist, there is no real causal link between the two" (Johnstone, 1978a:299).²

This dissertation examines historically the different approaches taken in the sociological study of delinquency and the family.

¹See Hackler (1982) for an insightful discussion of the current trends in family living patterns and a review of recent books highlighting these changes. Also see Newsweek (January 17, 1983:26-28) and U.S. News and World Report (May 9, 1983:A3-A4) for a popular rendition of this speculation over the fate of the family.

²However, there is strong consensus among criminal justice professionals and the general public on the centrality of the family in delinquency causation. As Johnstone (1978a:299) points out, few "are the officials or professionals who come into contact with delinquent youth who fail to be impressed with the aberrant features of their family circumstances. Popular impression thus prevails that bad families produce youngsters who go bad, and these impressions are reinforced periodically by the mass media."

These approaches are distinguished by developments in delinquency theory and research methods. Additionally, the rise of sociology as an academic discipline provided a broader social context within which these approaches emerged. Of primary concern is the manner in which each approach conceptualized the family's causal role. What follows, then, is not a full-blown exposition on the sociology of the family, nor of delinquency theory and research, but a discussion of how the etiological role of the family has been conceptualized and studied.³

One neglected facet of the family issue is that family forces may interact with other causal factors in influencing delinquency involvement. This concept of variable interaction is examined in detail in later chapters. For now it is important to note that while interactive effects have been acknowledged and investigated in some past studies, they have not been readily incorporated into contemporary causal explanations.

In the research reported here, a multivariate statistical model (analysis of variance) is used to identify significant interactive effects among selected family factors and other commonly identified causal variables. These interactive effects are then examined through tabular analysis to provide a more precise understanding of how the

³Thus, the present study is primarily concerned with social processes within the family which are conducive to adolescent law violation and with how family influences are conceptualized in causal explanations. Therefore, this study is admittedly inattentive to delinquent activity in terms of how society defines and responds to it. As a result, those causal perspectives which emphasize processes of labeling delinquents, ruling-class social control, and other socio-political dimensions of delinquent behavior have been neglected. It is also the case, however, that those perspectives with a socio-political frame of reference have little to say about the family's etiological role.

variables interact in affecting delinquency involvement.

Before explicating the research methodology of this study, a more detailed examination of the delinquency literature is in order. Focusing on the family's etiological role, Chapter I considers how the family has been conceptualized and studied relative to delinquent behavior. Chapter II then considers the significance of interactive effects for conceptualizing and understanding the family's causal role.

CHAPTER II

JUVENILE DELINQUENCY AND THE FAMILY: CONCEPTUALIZATIONS OF CAUSATION

Introduction

The development of the sociological study of juvenile delinquency and the family began with the emergence of sociology as a discipline in America in the late 1800s and early 1900s.⁴ As Gibbons (1979:19-20) has noted:

The rise of sociology was a part of the broader sweep of events in the United States during the first two decades of the twentieth century, which historians have identified as the Progressive Era. The progressive movement expressed reformist concerns about the harsh social consequences of rapid industrialization and urbanization which were overtaking the country.

A spirit of optimism rising from the conviction that people could solve most or all their problems simply through the application of reason and sincere effort also emanated from Progressivism (Gibbons, 1979:21; see also Hinkle and Hinkle, 1954:10-12; Demos, 1977:67).

One very active form of social reform during the Progressive Era was the child-saving movement which brought about dramatic institutional change in societal conceptions and responses to wayward youth. Prior to the nineteenth century, juvenile misconduct was

⁴It should be noted that the systematic concern over juvenile misconduct was a culmination of a historical process beginning in the sixteenth century in which concepts of "childhood", "adulthood", and "delinquent" slowly emerged (Empey, 1978:48-70; Demos, 1977). However, there is little doubt that the events of the nineteenth and twentieth centuries had far-reaching impact in societal conceptions and reactions to juvenile delinquency.

dealt with in the family rather than in special organizations and institutions (Mennel, 1973). A number of social, economic, and legal conditions of this period supported the family as the primary means of juvenile social control (Krisberg and Austin, 1978:8-13). However, beginning in the 1800s, significant changes rapidly altered this state of affairs:

nineteenth-century industrialization, urban migration, economic change, and population growth of the nation shifted responsibility for child misbehavior to bureaucratic institutions. Between 1825 and 1860, houses of refuge designed to control pauperism and thereby to strike at the roots of delinquency, sprung up around the country. Houses of refuge were succeeded by reform schools, as well as policies of "placing out" youth by sending them to live with rural families in the midwest. Finally, the juvenile court was originated in 1899, as the culmination of these trends (Gibbons, 1981:77).⁵

Platt (1977:xviii), however, observed that it was not until the close of the nineteenth century that a comprehensive attempt was made to rationalize these reforms into a coherent system of juvenile justice. As we shall see, the emerging discipline of sociology played an important role in the effort to provide a rational and academic basis to the social reforms of the Progressive Era (Hinkle and Hinkle, 1954:10-14). Sociology, in turn, was heavily influenced by the reformist vision of this era. It was within this context that sociological investigation into the family's role in delinquent behavior began.

Four general approaches have characterized sociological consideration of family influences in delinquency involvement.

⁵For a more detailed documentation of the development of institutional means of dealing with juvenile misconduct, see Platt (1977), Schlossman (1977), Empey (1978), and Krisberg and Austin (1978).

- (1) inquiry on the broken home
- (2) development of theoretical perspectives
- (3) testing of alternative causal models
- (4) development of integrated theoretical models

These approaches above are ordered in a rough chronological fashion. It should also be noted that the development of sociology as an academic discipline provided a broader social context within which these approaches emerged. The discussion which follows centers on how these approaches involved different causal conceptions and explanations of delinquent behavior, especially with respect to the family's etiological role.

Inquiry on the Broken Home

From about 1900 until 1932, the broken home was the primary focus in the study of and intervention in juvenile delinquency (Wilkinson, 1974). As Monahan (1957:250) has pointed out, "early writers saw the broken home to be an important if not the greatest single proximate factor in understanding delinquency." The emphasis on the broken home appears to have evolved from the prevailing social, cultural, and ideological conditions of the early 1900s (Wilkinson, 1974:726-732). These factors influenced both popular opinion and attitudes of sociologists, thus the broken home was readily accepted as an important causal factor.⁶

Industrialization and urbanization during the nineteenth century had dramatic impact on the family and how it was perceived. Prior to this period, the productive role of women and children in

⁶ It should be cautioned that while the broken home was considered a primary factor in delinquent behavior (Rothman, 1971:66-67, 70-78, 210-221) it was but one of a rich array of factors considered at the turn of the twentieth century (Mennel, 1973:78-101).

an agricultural, preindustrial society was one of functional necessity. With the advent of the industrial revolution, women and children were pulled into the labor market; however, with increasing urban migration and technological advancements in labor productivity, their role in the labor market became less viable. Then, too, there was a growing national emphasis on domesticity which contrasted the virtues of family life with the evils of the urban world (Demos, 1977:66-67; Lasch, 1979:6-8; Platt, 1977:176-177).⁷ In fact, it was widely agreed that in a highly competitive and rapidly changing world, traditional values must be maintained in the home (Demos, 1977:67). This perspective assigned women to a highly sentimentalized role as proprietor of traditional values.⁸ "Their [women's] position in life was defined in terms of a purity directly opposed to everything characteristic of the larger world" (Demos, 1977:68; see also Lasch, 1979:9-10). While men were involved with the world of work, women were charged with creating an "uncontaminated" home environment in which to morally anchor the husband and to properly rear their children. The emphasis on child rearing in the late 1800s is difficult to overstate:

it became the task of the mother to use all her innate affection and acquired insight to raise up a well-adjusted child. The ideal mother had to devote herself completely to the broad and everchanging demands of the child. She had to respond attentively to each new stage in child growth (an idea that psychologist G. Stanley Hall did much to

⁷ It should be noted that this emphasis on the sanctity of family life was centered in the middle and upper classes.

⁸ Aligned with the political-economic nature of the changing role of women is the advent and recognition of childhood and adolescence as distinct life stages, and the creation of delinquency as a legal category (Empey, 1976:1-96).

popularize), and to make certain that every need of the child would be fully met (Rothman and Rothman, 1977:viii; see also Rothman, 1971:216-221; Demos, 1977:67).

As a result, the concern over family stability pervaded this period and when explanations for delinquency were made, popular opinion heavily stressed the broken home (Rothman, 1971:66-67; Monahan, 1957:250).

One of the few activities which was consistent with the woman's primary role in the home was involvement in the social reform movements of the Progressive Era, including the child saving movement which eventually led to the creation of the juvenile court. Platt (1977:78) characterized the child savers as follows:

Although the child savers were bored at home and unhappy with their lack of participation in the "real world" they vigorously defended the virtue of traditional family life and emphasized the dependence of the social order on the proper socialization of children. They promoted the view that women were more ethical and genteel than men, better equipped to protect the innocence of children, and more capable of regulating their education and recreation.

Thus, the child savers perpetuated an emphasis on the importance of traditional family life. Further, their melioristic intervention into delinquent behavior maintained that "delinquent children were to be reformed by providing the influence of good parents and a stable home" (Wilkinson, 1974:730; see also Krisberg and Austin, 1978:19). With the development of the juvenile court, the child savers became aware of the high proportion of delinquent children from broken homes. This confirmed their attitude toward stable family life and facilitated the view that the broken family was an important causal factor (Monahan, 1957:250; Wilkinson, 1974:730-731).

Early sociologists also maintained a high evaluation of the

family (Wilkinson, 1974:729-730). Several characteristics of the emerging discipline help account for its emphasis on the family and its focus on the broken home as a primary causal factor of delinquency. Hinkle and Hinkle (1954:2-4) have contended that the development of sociology in the late 1800s and early 1900s was largely a response to the breakdown of traditional patterns of social life as a result of industrialization and urbanization. Many sociologists were struck by what they perceived as the breakdown of traditional family life. Early sociology emphasized the importance of a stable family life for child socialization. It was commonly maintained that if the family was broken, children could not develop adequately and delinquency could be one of the consequences (Wilkinson, 1974:729). Thus sociologists of this era "regarded the growth of cities and the accompanying changes in the family as detrimental. Their concern about the unstable family encouraged the acceptance of the broken home as a significant explanation of juvenile delinquency" (Wilkinson, 1974:730).

Their concern over the detrimental impact of urbanization led to the involvement of sociologists in the social reform movements of the Progressive Era. These sociologists have been characterized as highly reform minded men with rural and religious backgrounds (Hinkle and Hinkle, 1954:3; Lofland, 1963:3).⁹ In fact, many of

⁹There was a "close fit", although somewhat peculiar, between the background characteristics of early sociologists and their involvement in the social reform movements. While the present discussion has highlighted the convergence of traditional values with reformist ideologies, there was also a moral aspect to the work of early sociologists. This, most basically, was a reaction to the increasing power of an elite at the expense of the working class which resulted in poverty and poor living conditions for the latter (Oberschall, 1972:190; Finestone, 1976:7).

them had first gained prestige in the ministry or welfare organizations, and maintained these interests as sociologists (Sutherland, 1945:429; Oberschall, 1972:204). Coincidentally, early sociology was a utilitarian discipline focused on understanding social problems in order to promote social reform (Hinkle and Hinkle, 1954:12; Gibbons, 1979:131; Wilkinson, 1974:731). Beyond attempting to provide a rational basis to social reform, sociology was also relied upon to provide intellectual legitimacy and respectability to the reform movement (Oberschall 1972:189, 191). As a result, the emerging discipline was forced into a "dual constituency" whereby it became involved in trying to demonstrate practical usefulness in social reform and, at the same time, attempting to gain academic legitimacy as a science (Oberschall, 1972:189, 209). As Gibbons (1979:24) explains

The nascent discipline was often greeted with skepticism and hostility from the established disciplines and consequently faced a pressing question of academic legitimacy, as a result of the previous intellectual backgrounds of sociologists in the ministry, political economy, philosophy, and charities and corrections. The influence of social reformers was also felt on the sociologists' choice of subject matter, techniques of study, and presentation of results. Because sociology was pulled and tugged by this dual constituency, early sociologists showed an obsessive concern with becoming legitimate scientists at the same time that they were at pains to demonstrate that their field had practical usefulness. The first of these pressures often led them into arid, abstract system-building endeavors, while the second pushed them in the direction of popularized, reform-oriented, atheoretical investigations of social ills.

Early sociological studies consistently reported an association between the broken home and delinquent behavior (Monahan, 1957). However, the methodology of these early studies was rather unsophisticated, most frequently comparing the proportion of broken homes among delinquents to that of a control group. Additionally, Wilkinson

(1974:731) has claimed that the biases of early sociologists toward the stable family and their desires to support the reform movement were allowed to override scientific concerns (see also Oberschall, 1972:189). Thus, the subjectivity and methodology of these early studies provided the basis for criticism soon to follow.

The alleged importance of the broken home in delinquency causation was initially challenged by Shaw and McKay (1932). They questioned the apparent differences in proportion of broken homes among delinquents and controls:

they concluded from a study of Chicago school boys and juvenile court cases that only slightly more broken homes appeared in the delinquent group than in the control group (42 percent : 36 percent) and that the correlation between high delinquency rate areas and high broken home areas was small (Rodman and Grams, 1967:196).

Rodman and Grams (1967:196-197) and Wilkinson (1974:727-728) have documented the ensuing controversy. For the most part, the broken home explanation received rapidly diminishing attention as a primary causal factor (Wilkinson, 1974:732). As Wilkinson (1974:734) pointed out:

the subjectivity and the methodology of these earlier studies were rejected; therefore the explanation itself [the broken home explanation] was also rejected. Instead of improving the objectivity and methodology, the assumption was made that the explanation was of no value, and sociologists began examining other variables.

Inattention to the broken home occurred despite a number of subsequent studies which found an association between the broken home and delinquency (Glueck and Glueck, 1950; Monahan, 1957; Browning, 1960; Slocum and Stone, 1963; and Peterson and Becker, 1965). Then, too, there were a number of developments which encouraged more

sophisticated theory and research, to which we turn in the following discussion.

The Development of Theoretical Perspectives

Hinkle and Hinkle (1954:21) have noted that the harsh human realities of World War I dampened the positive spirit toward social change which had characterized the Progressive Era. This decline resulted in modifications in sociologists' perceptions of the role of the family in juvenile delinquency.

The child saving movement had culminated with the establishment of the first juvenile court in 1899 (Gibbons, 1981:77; Platt, 1977: 134-135; Krisberg and Austin, 1978:26-28).

The juvenile court idea spread so rapidly that within ten years of the passage of the Illinois law, ten states had established children's courts. By 1912 there were twenty-two states with juvenile court laws; and by 1925 all but two states had established specialized courts for children. Progressive reformers proclaimed the establishment of the juvenile court as the most significant reform of this period (Krisberg and Austin, 1978:27).

Accompanying the institutionalization of the juvenile court was the professionalization of "treatment" for delinquent youth, and closely related, the rise of the view that delinquency was a complex social problem with many possible causes (Krisberg and Austin, 1978: 30). As a result, the vigor of social reform expounded during the Progressive Era was replaced by a guarded view of delinquency as a complex problem requiring individual treatment.

Similarly, as sociology became more institutionalized and professionalized, many sociologists moved to divorce themselves from

the social reform movement (Oberschall, 1972:205, 241).¹⁰ Meliorism was rejected as an intellectual justification for sociology (Hinkle and Hinkle, 1954:20). Subsequently, much of what had been done by sociologists in the name of social reform was rejected and judged inadequate and subjective. This was especially true with regard to the broken home explanation of delinquency (Wilkinson, 1974:734). Sociology turned to more sophisticated theoretical perspectives in the study of juvenile delinquency and the family. This change was evidenced by an emphasis on multicausal explanations and a reassessment of the family's etiological role (Hinkle and Hinkle, 1954:23-24).

Beginning in the 1920s, several closely connected conceptual changes on the family emerged. First, a number of sociologists alleged that the family institution was experiencing declining importance due to a "transfer of function" whereby the family's protective, economic, religious, recreational, and educational functions were gradually being appropriated by other institutions (Ogburn, 1938). As a result, the family's functions were reduced to that of affection (Ogburn, 1938; see also Parsons and Bales, 1955; Burgess et al., 1963). Wilkinson (1974:732) described the significance of this alleged trend as it had to do with the family's role in delinquency causation:

With other institutions gaining control over the development of children, the family was considered less capable of influencing the behavior of its children and was therefore less likely to be considered responsible for juvenile delinquency.

Second, sociologists increasingly emphasized family adaptability instead of family stability (Wilkinson, 1974:733). This view developed

¹⁰For a comprehensive view of the institutionalization of American Sociology see Oberschall (1972).

in conjunction with a more favorable attitude toward urban life. The adaptability of even the broken family to an urban world was stressed: "when an equilibrium is reestablished a new pattern of family life will emerge, better adapted to the new situation, but only a different variety of the old familiar pattern of personal relationships in the family" (Burgess, 1926; cited in Lasch, 1979:32).¹¹ As a result, changing family conditions were viewed as less critical to delinquency causation. Finally, studies of sociology of the family were redirected away from child socialization to courtship and marriage (Lasch, 1979:37-43). Lasch (1979:39) observed that this refocusing was closely connected to ideas on the family's transfer of function:

So much had been made of the erosion of the family's educational functions by the school that socialization could hardly have looked like a solid basis on which to ground an argument for the continuing importance of the family.

Additionally, the extension of roles of women outside the home and the redefinition of their role within the family (from mothers to wives-companions) facilitated a deemphasis on traditional family life and child socialization. These changes in perspectives on the family served to frame study of it in terms unrelated to delinquent behavior.

As a result of these trends, family factors were given diminished etiological significance and subsumed within multicausal explanations of delinquent behavior in which the family was considered to be but one of many factors which contributed to its etiology.

¹¹ Associated with the view that the family's functions were becoming more specialized to that of affection, was the focus on family interactions and relationships (Burgess, 1926).

Beginning in the 1930s, a number of theoretical perspectives began to emerge which reflected a multicausal interpretation of delinquent behavior. Gibbons (1979:131-132) has claimed that the major theories which developed between 1930 and 1955 provided the central themes and tenets upon which sociological criminology has been based. A number of theoretical developments heavily influenced the way in which the family was conceptualized in relation to delinquent behavior. Four theoretical perspectives are singled-out in this discussion: Shaw and McKay's social disorganization argument, differential association theory, anomie theory, and social control theory.

Shaw and McKay: Social Disorganization and Delinquency. Just as Shaw and McKay's work in the 1930s has been viewed as a precursor to much of the criminological theorizing which followed (Gibbons, 1979:40; Finestone, 1976), so too, their perspective on the family's role in delinquency anticipated and influenced many subsequent conceptualizations. As will be recalled, they (Shaw and McKay, 1932) offered the first significant challenge to the accepted importance of the broken home in delinquency causation. But while they found little difference in the percentages of broken homes between a delinquent group and control group, they did not conclude that the family was irrelevant to delinquency (Toby, 1957:505). Instead, they (Shaw and McKay, 1932:524) contended that the family's influence "must be sought in more subtle aspects of family relationships rather than in the formal break in family organization."

This shift in emphasis away from the broken home was one of several characteristics of Shaw and McKay's work which drastically affected the way in which the family was conceptualized and included

in delinquency theory and research. Most fundamentally, their study on the epidemiology and etiology of delinquency stressed social disorganization resulting from rapid social change. Juvenile misconduct was viewed as a product of social disorganization in which the social control exercised by primary groups such as the family had broken down (Finestone, 1976:88).¹² Their conceptualization of social disorganization included a variety of ecological and cultural processes (Finestone, 1976:77-115; especially 88-90). Family factors were included within these processes, along with other factors similarly affected by social disorganization.

Shaw and McKay acknowledged the necessity for a social psychological level of analysis, viewing delinquency as occurring within a network of interpersonal relationships such as the family, gang, and neighborhood (Finestone, 1976:95-97; Gibbons, 1979:66). Thus their perspective involved attention to family relationships, but they focused on the impact of social disorganization on family relationships in the form of inadequate and/or alternative modes of socialization (Finestone, 1976:87-90) and the emotional conflicts and turmoil associated with divorce and other forms of family disorganization (Shaw and McKay, 1931:285; Toby, 1957:505).

It also should be noted that Shaw and McKay's work progressively moved from a perspective emphasizing social disorganization to one

¹² Finestone (1976:89) further noted that "Social disorganization as so interpreted provided a plausible account of the various factors and indexes which were statistically correlated with rates of delinquency... ." Shaw and McKay (1932), however, found that broken homes as an index of social disorganization were not overly represented in a delinquency group as compared to a control group. This may, in part, account for their subsequent focus on family relationships.

which stressed a social structural and cultural explanation of delinquency (Finestone, 1976:90-93, 97-107). Finestone (1976:91) claimed that this shift in perspective reflected the virtual cessation of immigration, along with the coming of the depression, which reduced the importance of social change and gave salience to the issues of poverty and unemployment. Finestone (1976:93) summarized this shift as follows:

From an emphasis upon social change and social processes they had moved to an emphasis upon social structure. From stress upon personal and primary group relationships--that is upon the local milieu--they had moved to attribute priority to the impersonal pressures originating in the larger society. The conceptual primacy of the local community was replaced by that of social class. The processes of city growth that had been phrased in terms of such ecological pressures as invasion, succession, and segregation were now rephrased as social differentiation. The urban community was conceived of as a social system and the epidemiology of delinquency interpreted in functional terms.

Shaw and McKay (1942:438) began to frame delinquency explanations in terms of social strains resulting from unequal opportunities to attain common success goals of society:

Despite ... marked differences in ... [income and status] ... in different communities, children and young people in all areas, both rich and poor, are exposed to the luxury values and success patterns of our culture. In school and elsewhere they are also exposed to ideas of equality, freedom, and individual enterprise. Among children and young people residing in lower-income areas, interests in acquiring material goods and enhancing personal status are developed which are often difficult to realize by legitimate means because of limited access to the necessary facilities and opportunities.

While this change in emphasis anticipated Merton's anomie theory (Gibbons, 1979:44), it also served to diminish emphasis on the family's role in delinquent behavior by drawing attention to etiological aspects of the social structure--a focus appropriated by many subsequent theories of delinquency. Additionally, Finestone (1976:97-107)

claimed that Shaw and McKay became increasingly sensitive to the etiological role of delinquent subcultures, in which illegal standards of conduct are embraced and transmitted. Especially in their case studies, Shaw and McKay acknowledged that the family could be an instrument in transmitting cultural patterns; however, the neighborhood environment of gangs and delinquent traditions was given primacy (Shaw, McKay, and McDonald, 1938). Thus, Shaw and McKay's work on subculture and delinquency predates the extensive use of sub-cultural aspects in delinquency theory (Short, 1969:xli) and served to focus attention on non-familial factors.

Differential Association. A second major theoretical perspective which had dramatic impact on how the family was conceptualized and included in explanations of delinquent behavior was Sutherland's theory of differential association. The elements of differential association theory emerged over an extended period of time beginning in the 1924 edition of his criminology textbook and finally reaching a systematic form in the 1939 edition (Cohen et al., 1956:13-29). Sutherland acknowledged the importance of social disorganization as a precipitating factor in criminality. His concept of "differential social organization" depicted urbanization as yielding a pluralistic social organization with alternative and inconsistent normative standards (Sutherland and Cressey, 1966:96). Differential social organization leads to "differential association", that is, a variety of associational ties in which individuals acquire either prosocial or criminal conduct definitions. Gibbons (1979:55) has summarized the process of different association as follows:

In essence, Sutherland's argument is that criminal behavior

will occur when individuals have acquired enough sentiments in favor of law violation to outweigh their prosocial or anti-criminal conduct definitions. People get their sets of prosocial and procriminal conduct standards through associations with others in their social environment. In general, the contacts or associations that have the greatest impact on people are frequent, lengthy, early in point of origin, and most intense or meaningful.

It is this social psychological process of learning conduct definitions in association with others that Sutherland stressed and for which differential association theory has been most widely recognized.

Sutherland identified five principle processes that link family conditions to delinquency:

First, a child may assimilate within the home by observation of parents or other relatives the attitudes, codes, and behavior patterns of delinquency. He then becomes delinquent because he has learned delinquency at home. However, other children of the same age and sex probably are more important than parents in presenting patterns of behavior, whether the patterns presented are delinquent or anti-delinquent. Second, parents determine both the geographic and the social class locus of the home in the community, and the locus of the home, in turn, largely determines the kind of behavior patterns the child will encounter. ...Third, the home may determine the prestige values of various persons and also the type of persons with whom intimacy later develops. ...Fourth, a child may be driven from the home by unpleasant experiences and situations or withdraw from it because of the absence of pleasant experiences, and thus cease to be a functioning member of an integrated group. ...The important element is that isolation from the family is likely to increase the child's associations with delinquency behavior patterns and decrease his association with anti-delinquency behavior patterns. ...Fifth, the home may fail to train the child to deal with community situations in a law-abiding manner. That is, delinquency patterns may not be present in the home, but the home may be neutral with respect to delinquency of the child. ...Again, whether such a "neutral" child becomes delinquent or not will depend upon his associations with delinquent and anti-delinquent patterns outside the home (Sutherland and Cressey, 1966:225-227).

While Sutherland delineated these processes by which the family situation influences delinquency, he clearly contended that unless delinquent patterns exist outside the home, the family has little

effect on delinquency. This view is stated even more explicitly in the following passages: "If the family is in a community in which there is [sic] no patterns of theft, the children do not steal, no matter how much neglected or how unhappy they may be at home" (Sutherland and Cressey, 1966:227); and further, "A child does not necessarily become delinquent because he is unhappy. Children in unhappy homes may take on delinquent patterns if there are any around for them to acquire" (Sutherland and Cressey, 1966:228). Thus, Sutherland viewed the family as important to the degree that family conditions either increase or decrease the probability that a child will come into contact with delinquent influences and will adopt delinquent behavior patterns (Sutherland and Cressey, 1966:227). In other words, family conditions are only important in situations when there are delinquent patterns to copy.

Anomie Theory. Merton's (1938, 1957) anomie theory was an important and influential extension of this emphasis on social structure and culture. The basic contention of the anomie perspective is that deviance is produced by a disjunction between culturally defined goals and socially accepted means of achieving these goals. According to Merton (1957:146), deviance is most prominent in the following societal situation:

it is only when a system of cultural values extols, virtually above all else, certain common success goals for the population at large while the social structure rigorously restricts or completely closes access to approved modes of reaching these goals for a considerable part of the same population, that deviant behavior ensues on a large scale.

Merton (1957:140) identified five possible ways of adapting to the social-psychological strain produced by anomie: conformity,

innovation, ritualism, retreatism, and rebellion. Innovation occurs when cultural goals are accepted but illegitimate means are used to achieve these goals while ritualism entails a rejection of goals but an acceptance of legitimate means. Retreatism is a form of withdrawal wherein both the goals and means are rejected, while rebellion involves the rejection of existing goals and means and the substitution of new goals and means.

Merton's anomie theory was class-based. As such, the family is primarily important to the degree that it determines the social class into which the child is born and thereby the opportunities which will be available to him or her. He (Merton, 1957:159) also suggested that family interactions may facilitate anomie for children when parents who are unable to provide access to opportunities exert pressure for high achievement on their children. He (Merton, 1957:159) speculated that:

if compensatory projection of parental ambition onto children is widespread [among the lower class], then it is precisely those parents least able to provide free access to opportunities for their children--the "failures" and "frustrates"--who exert great pressure upon their children for high achievement.¹³

While Merton identified this specific way in which family interaction may generate anomie and subsequently invite deviance, delinquency theories which have been based upon an anomie framework have

¹³ There are a number of issues intertwined in such a statement: whether parental pressures to achieve are differentiated according to social class; whether these pressures actually produce a state of anomie in youth; and whether anomie in turn invites deviant behavior. Hirschi (1969:176-177) has investigated the claim that parental pressure produces strain and strain is conducive to delinquency. Using the measure, parental expectations to attend college, Hirschi claimed that such strain helps account for delinquency in only a small, specific group--those whose grades are "not so good" and who expect to graduate from college.

not actively considered the family. Instead, these theories have heavily stressed the strain produced by a goals-means disjunction and delinquent subcultures as an adaptation to such strain.

Cohen's (1955) theory of delinquent gangs revolved around notions that delinquent gangs arise and develop contrary goals, values, and behavioral standards as a "reaction formation" to the stress produced by the inability of working class boys to achieve middle class status and standards. This shared problem among working class boys stems from their placement in the social structure. While he (Cohen, 1955:74-78) acknowledged the importance of early childhood experiences (socialization) in providing or not providing middle class skills and standards, his contention was that the family's social class position structures the child's socialization experience (Rodman and Grams, 1967:192). Thus, the family was viewed as important to the degree that the child's socialization experiences are defined by the standards of the family's social class position. With such a perspective, Cohen gave little direct attention to family variables. Bordua (1962) has criticized Cohen's formulation because it gave such scant attention to the family's role in producing delinquent behavior.

Cloward and Ohlin's (1960) theory of legitimate and illegitimate opportunity structures more closely followed Merton's conceptualizations. Their central hypothesis was that:

The disparity between what lower-class youth are led to want and what is actually available to them is the source of a major problem of adjustment. Adolescents who form delinquent subcultures...have internalized an emphasis upon conventional goals. Faced with limitations of legitimate avenues of access to these goals, and unable to revise their aspirations downward, they experience intense frustrations; the exploration

of nonconformist alternatives may be the result (Cloward and Ohlin, 1960:86).

They maintained that both legitimate and illegitimate opportunities are differentially available, thus the particular adaption to the goals-means disjunction experienced by lower-class boys is heavily influenced by variations in illegitimate opportunities. Cloward and Ohlin argued that lower-class areas are characterized by different types of delinquent and criminal patterns and traditions. They identified three different delinquent subcultures which determine the type of illegitimate opportunity available. A "criminal subculture" exists in well organized neighborhoods where criminal role models are available. "Conflict subcultures" characterize areas which are lacking in criminal traditions and which promote conflict. Youths with limited access to both legitimate and illegitimate opportunities due to psychological problems on their part may become involved in a "retreatist subculture" where use of drugs and alcohol are promoted.

Cloward and Ohlin's focus was on legitimate and illegitimate opportunity structures. Similar to Cohen, they gave little direct attention to family factors other than the fact that the family's social class position influences the availability of opportunity structures. Bordua (1962) and Matza (1964) have criticized differential opportunity theory precisely because it ignores the etiological importance of family conditions. Bordua (1961) also criticized the theory because it gives little attention to the influence that family socialization has on later involvement in delinquency.

Miller's (1958) theory of lower class delinquency is also predominantly a social structural explanation; however greater

consideration was given in it to family influences. According to Miller the structure of lower-class life plays the dominant role in generating gang delinquency. He contended that the female-based household is one of the major patterns of lower-class culture. Family stability is provided by one or more females playing multiple roles: economic supporter, disciplinarian, emotional supporter, and so forth. Gibbons (1979:99) succinctly described Miller's position on the significance of this pattern:

For the boy who grows up in the female-dominated household, life is fraught with anxieties about sex-role identification. The young male is bombarded from all sides by verbal assertions that "men are no damn good" and feels he must become a "real man" as quickly as possible. The male adolescent peer group, territorially located on city streets, provides the training ground and milieu in which lower-class males seek a sense of maleness, status, and belonging.

Miller also argued that lower-class society is organized around distinct cultural values or "focal concerns": trouble, toughness, smartness, excitement, fate, and autonomy. These focal concerns may lead youths to behavior which is delinquent according to middle-class standards. Delinquency "derives from a positive effort to achieve what is valued within [the lower-class] tradition, and to conform to its explicit and implicit norms..." (Miller, 1958:19).

The imagery of Miller's theory is one of cultural determinism. The family is considered to be central to his explanation, but it is a female-based household in which its structure, roles, and interactional patterns are culturally determined with little variability. As a result, family processes are delegated little significant influence with the social class culture being the ultimate, pervasive factor.

Jaffe (1963) directly applied anomie theory to the family situation. He hypothesized that anomie existed within a family when there was a lack of value consensus (attitudes and standards).¹⁴ He (Jaffe, 1963:147) claimed that "family anomie helps explain the malfunctioning of individual controls and delinquency proneness. Where there is evidence of family value confusion and ambiguity, the youngster is often forced to find his way by a process of trial and error... ." His research found that family anomie had significant, positive correlation with delinquency proneness. Identification with parents and a child's feelings of powerlessness (in terms of competence and control over one's life) also resulted from family anomie and were themselves associated with delinquency proneness.

Jaffe's work is worthy of notice because it was an isolated attempt to incorporate anomie theory into a formulation which actively elaborates the family's role in delinquency causation. However, he was guilty of over compensating by not including social structural and cultural aspects into his conceptualization of family anomie.

The theoretical developments of Shaw and McKay, Sutherland, and Merton served to redirect the conceptualization of the family in relation to delinquent behavior. Family factors were now considered in the context of multicausal explanations of delinquent behavior. Theoretically, the family was given less exclusive and diminished attention relative to other variables (Wilkinson, 1974:730). Social structural factors were also increasingly stressed, as were social

¹⁴Jaffe incorporated Durkheim's conceptualization of anomie. Thus, anomie was defined as a state of "normlessness" rather than as a "strain" resulting from a goals-means disjunction.

psychological processes within different cultural settings. These foci represented different levels of analysis more than competing explanations. Thus, Sutherland could acknowledge the importance of differential social organization, a social structural aspect, while emphasizing the social psychological processes of learning conduct definitions in interaction with others. Thus, these theoretical developments stressed non-familial variables and conceptualized the family's etiological role as being mediated by other variables or culturally determined. One notable exception to this pattern was the development of social control theory.

Social Control Theory. The most extensive consideration of the family's role in delinquent behavior is found in the various versions of social control theory. The social control perspective is distinct from the previously discussed theoretical developments not only because of the active and direct role it attributes to the family, but because, more generally, it attempts to explain conformity rather than delinquency-producing motivations or provocations (Johnson, 1979: 2). While control theorists disagree about the sources of control, they all agree on the central theme that delinquent behavior is a direct result of weak ties to the conventional normative order (Elliott et al, 1979:11). A widely-held premise of the control perspective is that the more constructive and satisfying the parent-child relationship, the less likely it is the child will deviate (Johnson, 1979:5-6). At least three distinct formulations of social control theory are prominent in the delinquency literature: Nye's (1958) version of social control, Reckless's (1961, 1973) containment theory, and Hirschi's (1969) control theory.

Nye (1958:5) identified four major forms of control:

(1) direct control imposed from without by means of restriction and punishment, (2) internalized control exercised from within through conscience, (3) indirect control related to affectional identification with parents and other non-criminal persons, and (4) availability of alternative means to goals and values.

He (Nye, 1958:8) considered the family to be the single factor most important in exercising social controls over adolescents. One of his studies (Nye, 1958) extensively analyzed various aspects of the parent-adolescent relationship (e.g., parent-child acceptance, discipline, freedom and responsibility) to determine how they are associated with delinquent behavior. He argued that his findings consistently revealed that family conditions are critical to the development of all four types of social control.

Reckless's (1961, 1973) "containment theory" hypothesized that conforming and deviant behavior are a function of an inner control system and an outer control system:

containment theory is an explanation of conforming behavior as well as deviance. It has two reinforcing aspects: an inner control system and an outer control system. ... Inner containment consists mainly of self components, such as self-control, good self-concept, ego strength, well-developed superego, high frustration tolerance, high resistance to diversions, high sense of responsibility, goal orientation, ability to find substitute satisfactions, tension-reducing rationalizations, and so on. These are inner regulators.

Outer containment represents the structural buffer in the person's immediate social world which is able to hold him within bounds. It consists of such items as a presentation of a consistent moral front to the person, institutional reinforcement of his norms, goals, and expectations, effective supervision and discipline (social controls), provisions for reasonable scope of activities (including limits or responsibilities), as well as for alternatives and safety-valves, opportunities for acceptance, identity, and belongingness. Such structural ingredients help the family and other supportive groups contain the individual (Reckless, 1973:55-56).

Reckless contended that a positive self-concept is indicative of strong inner and outer containments and that these containments insulate youths from delinquency.¹⁵ The research of Reckless and his associates asserted that positive socialization experiences, arising from a well-integrated family, were crucial to the development of inner and outer containment. They found that "insulated boys" perceived their family interactions as very positive.

There appeared to be close supervision of the boy's activities and associates, an intense parental interest in the welfare of the children, and a desire to indoctrinate them with nondeviant attitudes and patterns. This parental supervision and interest seemed to be the outstanding characteristic of the family profiles (Reckless et al., 1956:745).

The precise means by which the family influences the acquisition of inner and outer containment were not specified by Reckless. Indeed, containment theory has been criticized because it is relatively vague in regard to a number of its crucial concepts and processes (Schrag, 1971:82-89).

Travis Hirschi (1969) has offered another version of social control theory. The thesis of his particular perspective was that "delinquent acts result when an individual's bond to society is weak or broken" (Hirschi, 1969:16). Hirschi explicated four elements of an individual's bond to society. "Attachment" refers to the strength of relationship ties with significant others while "commitment" is the person's investment in conventional lines of action. "Involvement" in conventional activities is a third element of the bond, while

¹⁵The lack of conceptual clarity depicted in containment theory quickly becomes apparent in circular arguments such as this. See Schwartz and Tangri (1965 1967) and Orcutt (1970) for a critique of containment theory.

"belief" has to do with the acceptance of law abiding social norms and rules.

Hirschi (1969:86) viewed attachment to parents as a central variable in the development of a youth's social bond, identifying a number of explicit processes through which attachment to parents presumably works (1969:88-94). First, "virtual supervision" by parents, measured in terms of whether they know where the youth is and with whom, provides the youngster with a sense of supervision and causes him or her to consider, "What will my parents think?". Hirschi argued that direct control alone, through time spent between child and parent, is not of significant importance because delinquent acts require little time to commit. Second, intimacy of communication reveals the openness of the parent-child relationship, especially in sharing talk about activities and decision-making. Finally, affectional identification is a crucial element of the bond to the parent because it determines whether the youth really cares about and values the opinions of the parents.

To summarize, in contrast to other theoretical perspectives, social control theories assign the family a direct and significant etiological role in delinquency.

Testing Alternative Causal Models

In addition to articulating sophisticated theoretical perspectives, sociologists have also strived for academic legitimacy through the utilization of the scientific method (Hinkle and Hinkle, 1954: 22-28). While the relative value of different methodological techniques has been extensively debated over the last half century,

increasing emphasis has been placed on empirical research (Hinkle and Hinkle, 1954:22-28). By 1930 "scientific sociology" had become firmly established in the United States (Farris, 1967; Gibbons, 1979:39). By the mid-1940's, survey research techniques were highly developed and had been systematically applied in sociological studies, including delinquency research (Lazarsfeld, 1968:vii; Oberschall, 1972:210).¹⁶ While considerable controversy has occurred concerning the adequacy of survey research techniques, they have become the empirical basis for an important advancement in the causal analysis of delinquent behavior: testing alternative causal models.

Hirschi and Selvin (1967:66) have noted that most theories of delinquency suggest a "sequence of steps" through which a person moves from law abiding behavior to delinquency. Accordingly, most theoretical perspectives on delinquency which have developed since the 1920s offer distinct causal structures or models. This difference in causal explanation, together with the emphasis on a more scientific approach to sociology, provided the impetus for the empirical testing of alternative causal models. Furthermore, a number of theoretical and empirical developments encouraged such comparison.

The practice of testing alternative causal models was an extension of the elaboration model developed by Lazarsfeld and his associates shortly after World War II (Babbie, 1975:389).¹⁷ The

¹⁶ Oberschall (1972:216) claimed that survey research was initially associated and conducted by various social reform movements (see also Krisberg and Austin, 1978:28).

¹⁷ See Babbie (1975) and Rosenberg (1968) for a more complete account of the elaboration model.

elaboration model is a logical method of data analysis and interpretation through which the researcher seeks to better understand the relationship among variables. It has been used to assess numerous variable relationships central to a variety of sociological theories. As first advanced by Lazarsfeld, two variables were "elaborated", but as the model evolved the causal order and relative importance of variables began to be stressed. Babbie (1975:409) describes the basic form of elaboration analysis as follows:

(a) a relationship between two variables is observed; (b) a third variable--a control variable or "test" variable--is then used to subdivide the cases under study; (c) the original relationship between two variables is computed within each of the subgroups; and (d) the comparison of the original "zero-order" relationship with each of the "partial" relationships observed within the subgroups provides the basis for a better understanding of the original relationship itself.

Such analysis has usually been depicted in contingency tables where any change in the original, two variable relationship can be readily observed. For example, Hirschi and Selvin (1967:48), using Nye's data (1958:82), showed that the original relationship between delinquency and strictness of mother's discipline varies when the control variables, child's sex, is introduced. Table I reports the original relationship and Table II controls for sex of the child.

TABLE I

DELINQUENCY BY STRICTNESS OF MOTHER'S DISCIPLINE

	<u>Strict</u>	<u>Fairly Easy</u>	<u>Very Easy</u>
Percent Delinquent	25	30	37
Number of Cases	(220)	(332)	(195)

TABLE II

DELINQUENCY AND STRICTNESS OF MOTHER'S DISCIPLINE BY SEX OF CHILD

	<u>BOYS</u>			<u>GIRLS</u>		
	<u>Strict</u>	<u>Fairly Easy</u>	<u>Very Easy</u>	<u>Strict</u>	<u>Fairly Easy</u>	<u>Very Easy</u>
Percent						
Delinquent	32	32	38	18	27	37
N of Cases	(104)	(158)	(97)	(116)	(174)	(98)

Comparison of these two tables reveals that the original relationship between mother's discipline and delinquency is greatly reduced for boys and enhanced for girls. In other words, mother's discipline makes for greater difference in delinquency rates for girls than for boys. Thus, sex of the child serves to specify the relationship between mother's discipline and delinquency. This example illustrates the intent of the elaboration model: to better understand the relationship among variables by controlling for other variables.

Four concepts are central to the elaboration model (Babbie, 1975:397).¹⁸ "Replication" occurs when the partial relationships are essentially the same as the original relationship. In the previous example, if the relationship between maternal discipline and delinquency had been similar for both boys and girls, then these separate findings would replicate the original relationship. "Explanation" describes a relationship where the original relationship vanishes when a control variable is introduced. Thus, the original relationship is "spurious" or "explained away" by the new variable. "Interpretation" is similar to explanation in that the original relationship

¹⁸ Morris Rosenberg (1968) has extended the elaboration model to include a number of other variations. These variations are beyond the scope of the present discussion but are important advancements in the elaboration model.

greatly diminishes when the control variable is introduced; however, the new variable is viewed as important in interpreting the original relationship by establishing the causal order of the three variables. Finally, "interaction" is observed when the partial values vary over different categories of the control variable. In other words, the strength of the relationship between two variables depends on the value of the third variable. The previous example illustrates that mother's discipline and sex of the child interact in influencing delinquency rates.

Hirschi and Selvin (1967) incorporated the elaboration model into their appraisal of analytic methods in delinquency research. Their discussion centered on the analytic techniques used to discern the causal structure of variables--their causal ordering and nature of influences. Hirschi and Selvin's basic contention was that causal inferences can be drawn from the various multivariate analytic techniques of the elaboration model (see especially 1967:38,66). Following the lead of Hyman (1955), Hirschi and Selvin (1966:254-255; 1967:38) identified three criteria for adequate causal analysis: (1) independent and dependent variables are statistically associated; (2) an independent variable is causally prior to the dependent variable; (3) the association between variables does not disappear or diminish when the effect of another variable(s) is introduced. These criteria were also identified as association, causal order, and lack of spuriousness, respectively.

With the logic of causal analysis established through the elaboration model, it was a natural extension to test alternative causal models suggested by different theories. Two further developments

facilitated this extension. First, the advancement of multivariate statistical methods allowed for making causal inferences from cross-sectional data (Hirschi and Selvin, 1967:66). In a 1969 article, Liska indicated that an "empirical solution" to the choice between competing theoretical perspectives was possible through recently developed statistical methods (1969:486-489). Tabular analysis was initially used to elaborate variable relationships (Hirschi, 1969; Jensen, 1972). More recently, a number of multivariate statistical techniques have been used to make causal inferences from cross-sectional data: partial correlation (Blalock, 1962; Gould, 1969; Hackler, 1970; Jensen, 1972; Liska, 1973; Hepburn, 1977); path analysis (Empey and Lubeck, 1971; Johnson, 1979), and analysis of covariance models (Matsueda, 1982). Second, much effort has been devoted to discerning the causal structure and sequence of key variables as implied by different theoretical perspectives (e.g., Bahr, 1979).¹⁹ In fact, identifying variables which are mutually pertinent to each of the competing theories and establishing alternative causal sequences is a necessary condition for testing competing causal structures. Therefore, virtually all studies which test alternative causal models initially "make a case" for the specific causal structures which they claim represent each of the competing theoretical perspectives to be tested. This is no easy task because different theories stress different variables and may conceptualize the variables somewhat

¹⁹Gibbs (1972), however, claims that almost all sociological theories are untestable because they are stated with few empirical assertions and much discursive exposition. Delinquency theories have similarly been criticized. For example, differential association theory has been criticized because it lacks the clarity and precision necessary to test it (Gibbons, 1979:56-57; Nettler, 1978:266-268).

differently. It should also be noted that the actual empirical studies test only portions of causal models; that is to say, the causal structure for a limited number of variables. The result has been to validate or invalidate specific portions of different theoretical models.

Let us now review four studies which attempted to test alternative causal models and which included familial variables: those of Hirschi (1969), Jensen (1972), Hepburn (1977), and Matsueda (1982).²⁰ Special attention will be given to their conceptualizations of the family's etiological role.

Hirschi's (1969) study was an attempt to advance his own version of social control theory and to test it in contrast to strain and cultural deviance theory. Much of his analysis was directed at investigating numerous points of divergence between these theoretical perspectives. For example, after showing a relationship between lack of attachment to parents and delinquency, an hypothesis of control theory, Hirschi investigated the cultural deviance claim that attachment to lower-class parents is conducive to delinquent behavior. The cultural deviance perspective is based on the premise that the lower-class culture contains norms and values which are in conflict with that of the dominant middle-class culture (Hirschi, 1969:94-97). His findings revealed that the effects of attachment are the same in all segments of society: "The stronger the attachment, the less likely the child

²⁰ A number of additional studies which attempted to test alternative causal models are not discussed here: Gould (1969), Hackler (1970), Empey and Lubeck (1971), Linden and Hackler (1973), Liska (1973), and Rankin (1977). The studies of Gould, Hackler, Liska, and Rankin did not consider familial variables.

is to be delinquent" (Hirschi, 1969:229).

Hirschi also analyzed specific causal sequences implicit in these different theories (e.g., 1969:120-134). On several occasions he more directly compared control theory with either strain or cultural deviance theories by contrasting their causal sequences for specific key variables; however, his testing of alternative causal models was not as deliberate as those studies discussed below.

Hirschi's (1969:98-100) analysis of two alternative causal models is especially relevant to our discussion of the family's role in delinquency causation. He (Hirschi, 1969:98) argued that the etiological formulations of control theory and cultural deviance theory provide alternative explanations of the causal structure among three variables: attachment to parents, criminal influences and delinquent behavior. In his words (Hirschi, 1969:98):

In control theory, lack of attachment to the parents is directly conducive to delinquency because the unattached child does not have to consider the consequences of his actions for his relations with his parents. In cultural deviance theory, in contrast, lack of attachment to the parents merely increases the probability that the child will be exposed to criminal influences, that he will learn the attitudes, values, and skills conducive to delinquency. Being free of parental control is not enough to produce delinquency; a learning process must intervene... .

Hirschi's (1969:98) basis of analysis was as follows: "If it is true that lack of attachment to parents has no direct effect on delinquency, then among those whose exposure to 'criminal influences' is identical, the effects of attachment to parents should be considerably reduced, if not eliminated." Thus he controlled for "criminal influences" in order to observe whether varying degrees of parental attachment had an effect on delinquency. His indicator for criminal

influence was the number of friends picked up by police and the indicator for attachment to parents was the intimacy of communication with father. Based upon tabular analysis, he (Hirschi, 1969:99) concluded: "Regardless of the delinquency of friends, the child attached to his father is less likely to commit delinquent acts." He interpreted such findings as supporting control theory over cultural deviance theory.

Jensen (1972) investigated the causal structure of delinquent behavior patterns, parental influence, delinquent definitions, and delinquent behavior. He focused on the most fundamental relationship implied by differential association theory: exposure to delinquent patterns is assumed to lead to "definitions favorable to the violation of the law" and subsequently to delinquent behavior (Jensen, 1972:562). Differential association theory stresses that delinquent definitions are a necessary precondition for delinquent behavior (Jensen 1972:567). He tested the causal structure of differential association in contrast to the causal structures implicit in two other arguments: control theory (Hirschi, 1969) and theories of group process and situational inducement (Briar and Piliavin, 1965; Short and Strodtbeck, 1965).

Jensen first investigated whether delinquent peers encourage delinquency directly, as suggested by theories of group process and situational inducement, or indirectly by exposing a youth to delinquent definitions, as differential association suggests. His findings supported the former, indicating that delinquent definitions and delinquent peers are independently related to delinquency (Jensen, 1972:568-569). Moreover, delinquent peers influenced delinquent

behavior regardless of delinquent definitions.

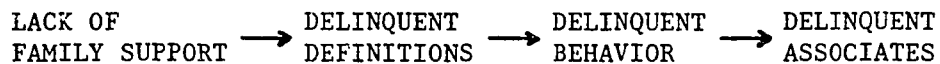
He then asked whether parental support and supervision affects delinquency directly, as Hirschi's control theory predicts, or indirectly by influencing the probability that a youth will come into contact with delinquent patterns and thereby acquire delinquent definitions, as differential association theory contends. He found that paternal support and supervision influenced delinquency regardless of the number of delinquent peers or level of delinquent definitions (Jensen, 1972:569-573). In other words, paternal support and supervision had an independent effect on delinquency.

Hepburn (1976) examined three competing theories that imply different causal structures among four variables: lack of family support, delinquent definitions, delinquent associates, and delinquent behavior. His explication of these alternative causal models included the construction of causal diagrams. Differential association theory posits that a lack of family support may increase a youth's associations with delinquent behavior patterns (delinquent associates). These two factors then lead to the acquisition of delinquent definitions and, subsequently, to delinquent behavior. He (Hepburn, 1976: 450) depicted the causal structure of differential association as follows:



In contrast, the Glueck's version of social control theory contends that delinquent behavior leads youths into contact with

delinquent associates. Further, the lack of family support is seen as encouraging delinquent attitudes and, in turn, delinquent behavior. The Glueck's (1950:164) summarized this view by asserting that "birds of a feather flock together", that is, youngsters who acquire delinquent attitudes from parental influences than seek out other potential delinquents with whom to associate. Hepburn sketched the Glueck's model as follows:



Hirschi's version of social control theory was the final model incorporated into Hepburn's analysis. Lack of family support is held to produce attenuated ties to conformity, with youths then becoming prone to associate with delinquents and developing delinquent definitions. Hirschi's argument differed from the Glueck's, however, in that "delinquent behavior and delinquent associates are independent effects of delinquent definitions and delinquent behavior is the effect, not the cause of delinquent associates: (Hepburn, 1976:451). Thus, the causal structure advocated by Hirschi was depicted by Hepburn (1976:451) as follows:



The data used by Hepburn to test these different causal structures were obtained from questionnaires administered to a group of 139 males, ages 14-17, in a medium-sized Midwestern city. Utilizing partial correlation, he analyzed the causal ordering of the variables

by observing whether the relationship between various bivariate combinations was maintained or diminished when a third variable was controlled for.²¹ The partial correlations were then compared with predictions derived from each of the causal explanations. He concluded that the greatest support was revealed for Hirschi's formulation of control theory.

Matsueda (1982) constructed an analysis of covariance model in which measurement error for certain variables was considered. In so doing, he sought a more accurate test of the causal structures implicit in differential association, control, and multiple factor theories. Six groupings of variables were included in his analysis: background variables (including age, parent's socioeconomic status, broken home, and perceptions of trouble in the neighborhood), parental supervision, delinquent peers, attachment to peers, definitions favorable to the violation of the law, and delinquent behavior. He (Matsueda, 1982:493) depicted the alternative causal structures among these variables as shown in Figure 1 (page 42).

Using the nonblack, male subsample of the Richmond Youth Project data, Matsueda's analysis revealed support for the causal structure derived from differential association theory. He (Matsueda, 1982: 499-500) found that the background variables, parental supervision, delinquent peers, and attachment to peers were all mediated by definitions favorable to the violation of the law. When the

²¹Hepburn thus employed the elaboration model of data analysis to infer causal structure. Accordingly, if the original relationship disappears when a control variable is introduced, that relationship is spurious and a direct causal relationship is not inferred. The theoretically predicted and actual partial correlations can then be compared to determine the degree of fit.

definitions variable was introduced, the effect of these prior variables became statistically insignificant.

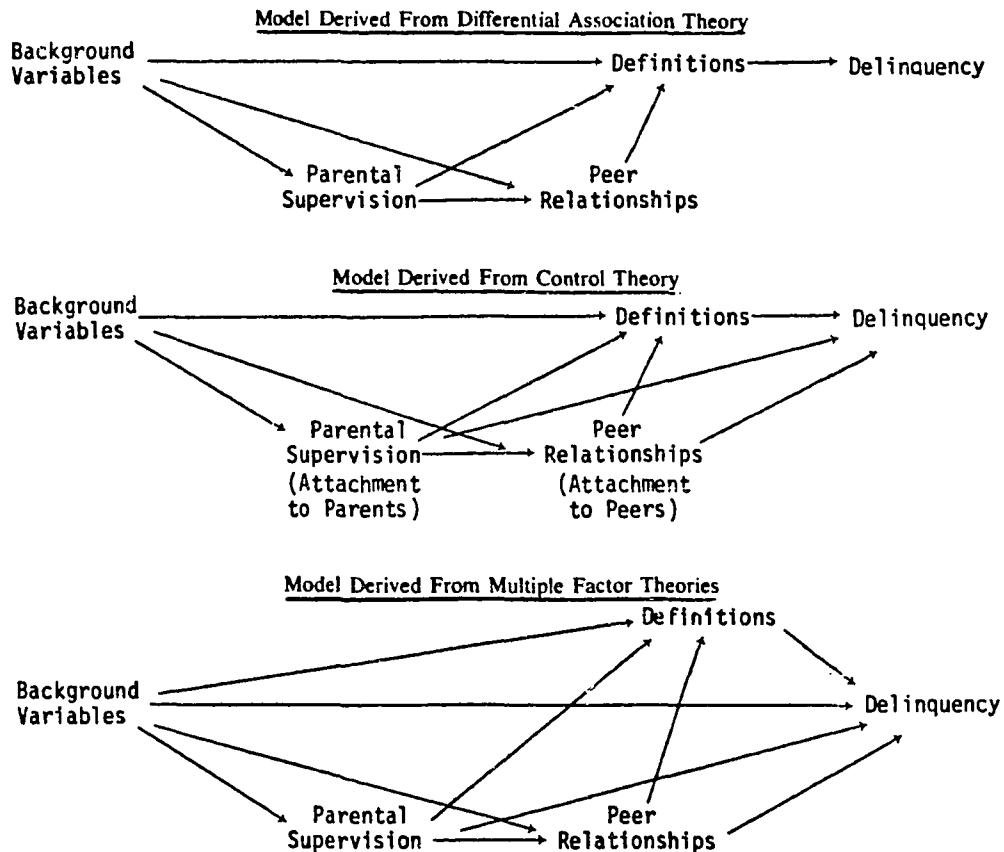


Figure 1. Alternative causal models tested by Matsueda (1982: 493)

Development of Integrated Theoretical Models

As sociology has evolved as a discipline, its theories and research methods have become more complex and refined. Thus far, discussion has highlighted this process in the family-delinquency literature. The most recent approach to emerge, integrated theoretical models, is a product of this refinement process. Conger (1976:17-18) has depicted the rationale behind integrated theoretical models as

follows:

For students of delinquent behavior, possibly the most important task at this point in time is to sort through these different theories to determine: (1) the degree to which they are different or similar; (2) the extent to which their seeming differences are really a result of addressing different questions; (3) which theories or parts of theories can be empirically refuted; and finally, (4) to what degree those aspects of the different models which appear to have empirical support can be synthesized into a general theory.

Rather than viewing alternative theoretical explanations as competing with one another, the focus of those who favor integrated theoretical models is on the integration of empirically-validated elements from different theories (Elliott et al., 1979:20). The goal is to arrive at a more accurate and comprehensive causal perspective of delinquency. While Hirschi (1969:3) claimed that "most current theories of crime and delinquency contain elements of at least two and occasionally all three perspectives [i.e., strain, subcultural, and control]...", it has only been recently that there has existed the accumulated body of empirical and theoretical knowledge to permit the development of integrated theoretical models.²²

Elliott, Ageton, and Cantor (1979:3) have pointed out that "there have been few major advances in theories concerning the causes of delinquency since the work of Cloward and Ohlin (1960) and Hirschi

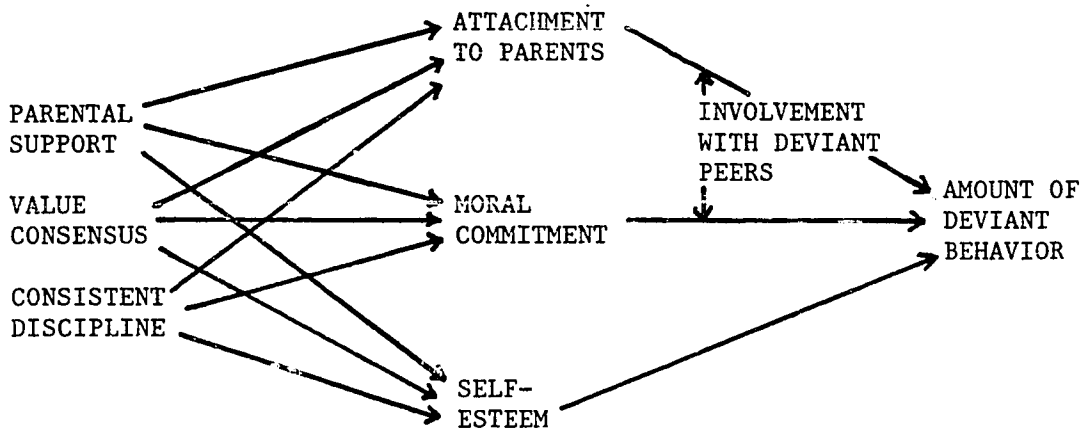
²² Cloward and Ohlin's (1960) theory of differential opportunity can be viewed as an early version of an integrated theoretical model since it combines learning, strain, and subcultural theories (Hirschi, 1969:4, footnote #4). However, their synthesis did not benefit from the empirical testing of existing theories and related research findings. Thus, differential opportunity theory is probably better viewed as a theoretical extension of these theories rather than as an integrated theoretical model.

(1969)."²³ They noted that there have been a number of reformations of traditional etiological theories, but few significant advances. However, they and several others have recently formulated integrated etiological models which attempt to extend delinquency theory by integrating research findings from studies informed by traditional theories. Let us now consider several of these models which include family factors within them.

Bahr (1979) examined the major elements of six theoretical orientations: differential association, social control, anomie, psychoanalytic, deterrence, and labeling. After reviewing relevant empirical research, each theory was placed in propositional form and diagrammed in a causal model. His focus was on the role of family determinants within these different theoretical perspectives.

He then compared the major concepts of these six theories, claiming that although "the six theories are distinct entities and have different emphases and assumptions, a number of their major concepts have similarities" (Bahr, 1979:638). With this element of commonality, he (Bahr 1979:639) explicated an integrated theoretical model which included variables which have received support from empirical research and which have been included in at least two theoretical perspectives. He also stated this causal model in propositional form. The resulting integrated model is as follows (Bahr, 1979:639).

²³ Elliott, Ageton, and Cantor (1979:3-4) also claimed that the emergence of labeling theory was largely responsible for a shift in focus "from the etiology of delinquent behavior to the societal responses to it and the study of institutional processing practices which result in selective identification of particular youth as delinquent persons."



While Bahr's integrated model can be criticized on the grounds that it fails to capture critical dimensions emphasized by previous theories (e.g., delinquent definitions),²⁴ it was an attempt to integrate common family determinants advanced by divergent theoretical perspectives. The question remains, however, as to how such family determinants can be integrated with a wider variety of non-familial variables.

Colvin and Pauly (1983) have recently incorporated a variety of criminological-delinquency theories into an integrated model which is principally a Marxist rendition of the social control perspective. Their theory attempts to deal both with macro-level factors such as social control and micro-level processes of child socialization. Colvin and Pauly (1983:514) drew heavily upon Etzioni's (1970)

²⁴ This limitation of the model is admitted by Bahr (1979:639). The model can also be criticized because it over-simplifies the causal structure of these variables. If moral commitment is meant to approximate delinquent definitions, then differential association theory would maintain that involvement with deviant peers leads to delinquent definitions (a lack of moral commitment) rather than intervenes between delinquent definitions and deviant behavior. Additionally, the containment perspective contends that attachment to parents influences a youth's self esteem; this is not depicted in the model.

compliance theory in which different forms of social control produce particular kinds of compliance behavior and ideological reactions, for example, coercive controls create an alienated bond with authority (Colvin and Pauly, 1983:515). In Colvin and Pauly's argument, life experiences in the workplace shape all other relationships. The authors summarized the resulting social processes as follows:

The direction of socialization is initiated by the parents' location in workplace control structures, which are shaped by the historical interaction between competition among capitalists and the level of class struggle. These workplace control structures affect the structures of control within families. Children's initial bonds are shaped by family control relations and tend to set the child up for, or preclude placement in, specific control structures at school. School control structures create differential experiences of reward and punishment and reinforce or attenuate initial bonds. The juvenile is then open for recruitment to a variety of peer group experiences that are also shaped by structures of control among peers, which interact with differential opportunity structures in the surrounding community to produce specific patterns of peer group behavior. If patterned delinquent peer groups are available in the immediate social environment, a juvenile's structurally induced bond will open him up to, or insulate him from, entry into such peer relations. Entry into this type of peer association continues the pattern of reinforcement toward more sustained delinquent behavior (Colvin and Pauly, 1983:542-543).

This model involves a causal process determined by the political-economy of society with "delinquency as a latent outcome of the social reproduction [socialization] process in capitalism" (Colvin and Pauly, 1983:542). Colvin and Pauly contended that the coerciveness of family control structures, conditioned by parents' work experiences, determine a child's initial bond to parental authority. For example, if the parents' workplace is characterized by coercive controls and erratic employment, family control structures tend to vacillate between being lax and highly punitive. Colvin and Pauly (1983:536) expected "more alienated initial bonds to be produced in children

who experience such arbitrary, inconsistent, and coercive family control structures." Thus, a child's initial bond will vary depending upon the type of family control structures, but the family's role is depicted as one largely determined by other factors. However, Colvin and Pauly did stress that initial bonds developed in the family may either be reinforced or attenuated by later life experiences, that is, by social controls experienced in school and peer groups.

An integrated theoretical model which expanded and synthesized strain, social learning, and social control perspectives was developed by Elliott, Ageton, and Cantor (1979). Central to their model were several key variables derived from these theoretical perspectives: social bonds, bond attenuating experiences, and delinquent learning and performance structures. Two types of social bonds were identified. An external bond which encompassed involvement in, and attachment to conventional groups and institutions was termed "integration" (Elliott et al., 1979: 12). "Commitment" involved an internal social bond related to an individual's acceptance of social norms, values, and rules. They averred that: "Integration and commitment together constitute the bonds which tie an individual to the prevailing social order" (Elliott et al., 1979:12). Experiences such as failure to achieve valued goals, negative labeling, and social disorganization in the home or community serve to attenuate an individual's bond to society. Delinquent learning and performance structures were included in delinquency etiology because these variables presuppose a pattern of social relationships through which motives, rationalizations, techniques, and rewards can be learned

and maintained. Finally, the delinquent peer group was viewed as essential for the performance and maintenance of delinquent behavior patterns.

In their model, Elliott, Ageton, and Cantor (1979:17-19) postulated two dominant etiological paths to delinquency. The first represents an integration of control theory and social learning theory:

Weak integration into and commitment to the social order, absence of conventional restraints on behavior, and high vulnerability to the influence of delinquent peer groups during adolescence characterize the socialization experiences related to the first path. Depending on the presence and accessibility of conventional and delinquent peer groups, some weakly bonded youths turn to delinquency while others maintain an essentially conforming pattern of behavior or a legal, but unconventional, lifestyle. (Elliott et al., 1979:17).

The second path involves factors identified in social learning and strain theories:

Youths who follow this path develop strong bonds to the conventional social order through their socialization experiences. The crucial element in this sequence is the attenuation, or weakening, of these bonds. Attenuating experiences during adolescence involves personal failure to achieve conventional goals and/or threats to the stability and cohesion of one's conventional social groups. Once one's bonds are effectively weakened, like those who never develop strong bonds, one is free to explore alternative means for goal achievement and to participate in delinquent or unconventional groups (Elliott et al., 1979:17).

The authors' model is presented in Figure 2 (Elliott et al., 1979:10).

The resulting integrated model was quite general and somewhat vague in regard to the specific processes involved. They enunciated their perspective in this manner in order to specify a broad and parsimonious set of variables (Elliott et al., 1979:21). The argument of Elliott, Ageton, and Cantor suggests that the family may not only be important in influencing a child's initial social bond but also may play a role in the attenuating or reinforcing experiences

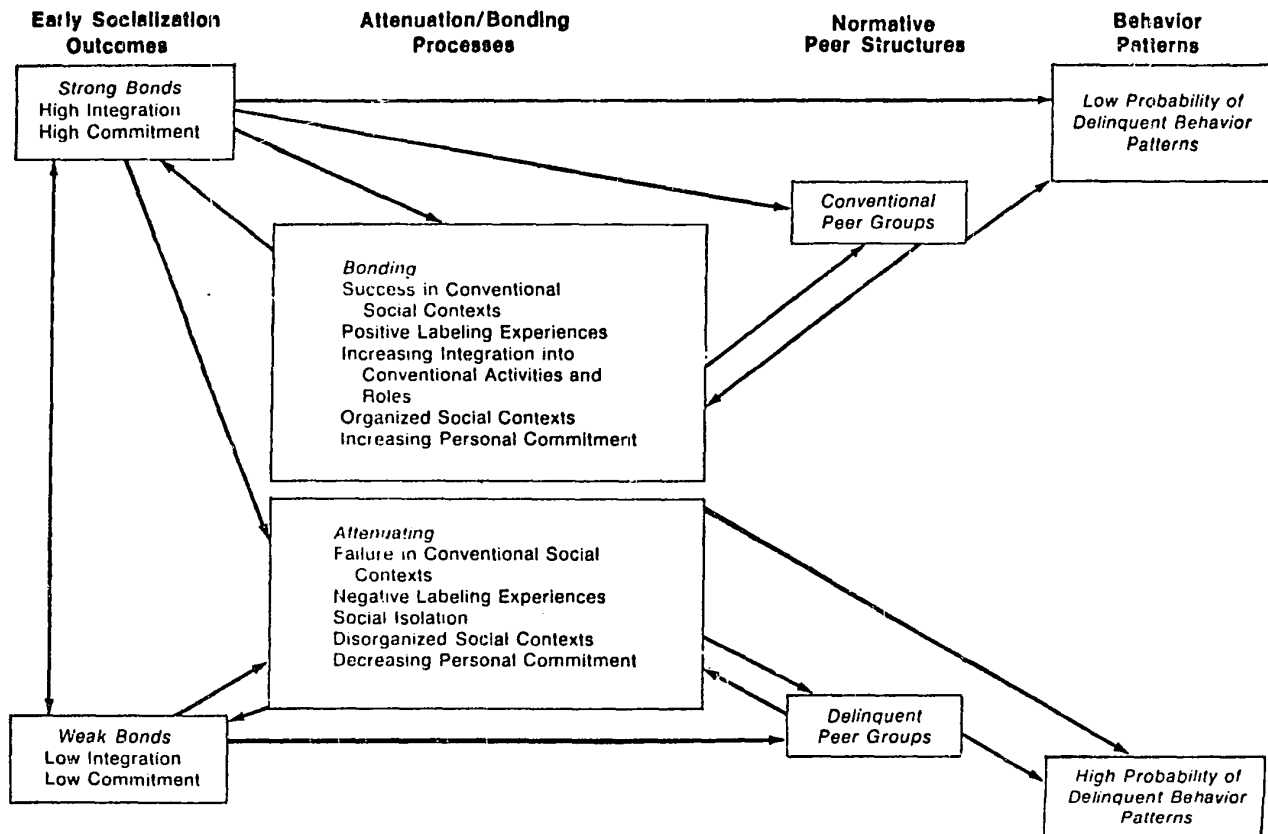


Figure 2. The integrated theoretical model developed by Elliott, Ageton, and Cantor (1979:10).

encountered during late childhood and adolescence.

Johnson's (1979) work is the most extensive and detailed venture into developing an integrated theoretical model. He not only incorporated previous theories and research findings but also empirically tested the resulting model. He examined seven key variables drawn from three major theoretical orientations: strain, subcultural, and control. His goal was to determine which claims of which major theoretical orientations are refuted or supported by studies exploring the relationships of delinquent behavior with social class, intra-familial relationships, school experiences, conception of future opportunities, delinquent peer associations, delinquent personal values, and perceived risk of apprehension (Johnson, 1979:10). He incorporated the most empirically-valid aspects of these variables into an integrated causal model which was then tested by path analysis.

Johnson (1979:50-51, 76-81) conceptualized family influences in terms of parental love and concern for the child and the child's attachment to parents. Parental love and concern was viewed as determining the child's attachment to parents and his or her susceptibility to peer influence. Children who receive parental love and concern attain positive self esteem and therefore have less need for peer involvement and approval (Johnson, 1979:50-51, 68). Parental love and concern was also hypothesized as influencing performance in school, with those receiving parental support striving to match up to the educational expectations of their parents. Attachment to parents was thought to influence attachment to school, delinquent associates, delinquent values, and delinquent behavior. A youth who is attached to his or her parents desires to please them, develops

attitudes and values similar to theirs, and experiences the "psychological presence" of the parents (Johnson, 1979:48-49, 60-62). Johnson's (1979:67) diagram of these relationships, shown below, illustrates his conceptualization of family influences in terms of parental love and concern and attachment to parents and indicates their relationships to other causal variables

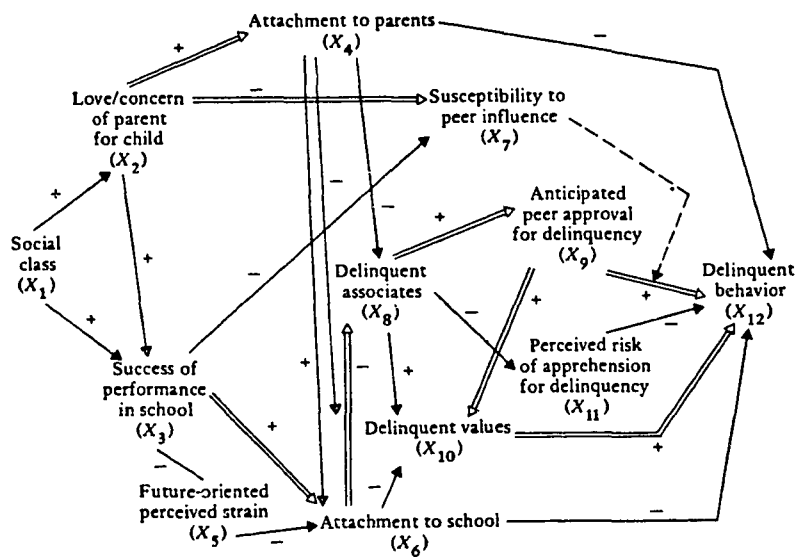


Figure 3. Johnson's integrated theoretical model.

Johnson's research findings were generally consistent with the model in regard to parental love and concern, although attachment to parents did not emerge as an important variable. The data revealed virtually no direct effects of parental attachment upon delinquent behavior, delinquent associates, or delinquent values (Johnson, 1979:103). The effect of parental attachment on school attachment was the only predicted effect supported by the data. Johnson (1979:105) concluded that the importance of attachment to parents probably has been overstated.

Summary

Several summary observations are in order. Initial efforts at understanding delinquent behavior often viewed the broken home as a primary factor. Later, more sophisticated theory and research stressed multivariate relationships, usually among non-familial variables. Causal analysis initially focused on elaborating bivariate relationships where one variable was considered to be causally prior to another. However, refinements in the major theoretical orientations eventually led to the identification of alternative causal models, while advancements in research methods allowed these causal models to be statistically compared. Integrated theoretical models then resulted from the synthesis of empirically-validated elements from different theories. Thus, causal explanations of delinquent behavior have increasingly stressed the independent effects, relative importance, and causal ordering of multiple variables.

The causal picture which has emerged in regard to the family is, however, neither clear, simple, nor consistent (Johnstone, 1980). The causal role of the family has been conceptualized in different ways and had been assigned different degrees of importance. One little-appreciated fact concerning the family's causal role is that family factors may have an interactive effect on delinquency involvement. The research reported here examined the concept of variable interaction and empirically analyzed the family's etiological role within the framework of interactive effects.

CHAPTER III

AN INTERACTIONAL VIEW OF THE FAMILY AND DELINQUENT BEHAVIOR

The Concept of Interaction

As discussed in Chapter II, variable interaction is a central concept of the elaboration model. While interactive effects have been investigated and revealed in delinquency research, the notion of variable interaction has not been actively extended to causal theories. In order to investigate whether family variables may be better conceptualized and understood in a causal scheme which incorporates interaction effects, it is first necessary to more fully explicate the concept of interaction, review how it has been studied, and discuss findings of interaction in delinquency etiology.

The concept of interaction maintains that the causal role of certain variables cannot be assessed independently of other variables (Hirschi and Selvin, 1966:267). More precisely, interaction occurs when the relationship between an independent and dependent variable varies, depending on the value of another independent variable(s) (Kerlinger, 1979:96).²⁵ For example, Stanfield (1966:415-416) found that peer activity and paternal discipline interact in affecting delinquency rates. Peer activity had greater influence on delinquency

²⁵A number of terms are often used interchangeably with interaction. For example, "conditional relationship" and "specification" are frequently used to describe findings of interaction. Hirschi and Selvin (1967:111) distinguished these terms.

when paternal discipline was lax or erratic than when paternal discipline was consistent. Thus, the effect of peer activity on delinquency rates varied depending on the style of paternal discipline.

Within elaboration analysis, findings of interaction serve to specify whether the original relationship is strengthened or weakened under different conditions or levels of the test variable(s) (Rosenberg, 1968:106).²⁶ Hirschi and Selvin (1967:99) have pointed out that a statement of interaction is more than mere description, in that it has theoretical and etiological consequences.

For example, Cloward and Ohlin's theory of delinquency suggests that the effects of the absence of legitimate means depend on the availability of illegitimate means. And in Merton's theory of anomie the outcome of pressures toward deviance depends on the values of such variables as internalization of norms (Hirschi and Selvin, 1967:99-100).

The investigation of variable interaction has often had significance for testing alternative causal models. For example, Jensen (1972) investigated the possibility of interaction between family life, delinquent peers, and delinquent definitions. He sought to test the prediction from differential association theory of interactive effects among these variables (Jensen, 1972: see especially footnote #5, p. 565). Similarly, some of Hirschi's (1969) findings of variable interaction appeared in his discussion comparing the causal structures of different theoretical perspectives (e.g., 1969:152-158).

Interactive effects, as an element of elaboration analysis, have been investigated primarily through the medium of contingency

²⁶ Rosenberg (1968) used the term "conditional relationships" to refer to variable interaction. Both terms refer to the same concept in variable relationships, but interaction is the most frequently used statistical term (Hirschi and Selvin, 1967:111).

tables (Babbie, 1975:387). Contingency tables, which allow for tabular analysis, are frequently found in delinquency research. Interaction can be observed when the relationship between two variables varies over categories of a third variable. For example, one of Hirschi's (1969:158) contingency tables shown below clearly depicted findings of interaction

TABLE III

AVERAGE NUMBER OF SELF-REPORTED DELINQUENT ACTS BY
STAKES IN CONFORMITY AND NUMBER OF DELINQUENT FRIENDS

Friends Picked Up by Police	Stakes in Conformity							
	Low 0	1	2	3	4	5	6	High 7
None	.68 (114)	.23 (34)	.48 (40)	.41 (70)	.28 (25)	.41 (59)	.26 (65)	.21 (80)
One-Two	1.20 (55)	1.04 (37)	.84 (22)	.76 (42)	.73 (14)	.56 (27)	.31 (20)	.31 (13)
Three or More	2.20 (100)	1.55 (30)	1.06 (17)	1.09 (39)	.76 (4)	.70 (17)	.33 (6)	.58 (9)

Number of cases are in parentheses

Interaction can be seen in this table in that "the impact of delinquent friends depends on stakes in conformity" or the corollary, "the greater the number of delinquent friends, the greater the impact of stakes in conformity" (Hirschi, 1969:157-158). In other words, the relationship between delinquent friends and delinquency varies across degrees of stakes in conformity and vice versa.

Although the information revealed through tabular analysis may often be extremely rich, this analytic technique has been criticized on at least three different counts (Hirschi and Selvin, 1967:162-174). First, tabular analysis becomes extremely complex when more than three

independent variables are considered simultaneously. Second, very large samples are required when analyzing more than two or three independent variables that have more than a few categories (Hirschi and Selvin, 1967:166). Third, tabular analysis does not allow for statistical tests of significance of variable interaction. Chi-square has been used to test for significant differences between categories of contingency tables (Nye, 1958; Conger, 1976), but this statistic does not indicate whether variable interaction, itself, is statistically significant.

Gamma and tau b, two measures of association, have also been used to depict interaction when their coefficients are reported over categories of a third variable (Jensen, 1972; Conger, 1976).²⁷ Several of Conger's (1976) tables illustrate how these statistics can depict interaction. He reported the following gamma and tau b coefficients for the relationship between delinquency and "communication from adolescent to parent" when controlling for "parental punishment" (Conger, 1976:33).

TABLE IV
RELATIONSHIP OF SELF-REPORTED DELINQUENCY TO PARENT-CHILD COMMUNICATION, WITH PARENTAL PUNISHMENT CONTROLLED

	<u>Parental Punishment</u>		
	<u>Low</u>	<u>Medium</u>	<u>High</u>
Gamma	-.27	-.15	.01
Tau b	-.17	-.10	.00
Significance	p=.001	p=.003	p=n.s.

²⁷ A variety of nonparametric measures of association similar to gamma and tau b could actually be used. The SPSS version of "crosstabs" (contingency tables) subprogram provides numerous measures of association for each category of the control variable (Nie et al., 1975).

Interaction is apparent in this table in that "As parental punishment increases, communication from juvenile to parent is no longer related to delinquency" (Conger, 1976:32). In other words, the relationship between delinquency and communication depends upon the level of parental punishment. The major difficulty of using gamma and tau b to infer interaction is that they do not provide for a statistical test of significance for the observed interaction (the significance scores reported by Conger [1976] are tests of significance for each coefficient). Thus, the use of contingency tables and gamma or tau b to explore interaction merely allows the analyst to infer interaction among variables but not to test whether the interaction itself is significant.

Causal Implications of Variable Interaction

Interaction among causal variables is important in understanding and conceptualizing delinquent behavior. Rosenberg (1968:106-107) observed that interactive effects often accurately reflect social reality but that little attention has been given to their analytic, interpretive, or theoretical potentialities.²⁸ Further, Hirschi and Selvin (1967:47, 100) have observed that interaction among independent variables is one of the most common outcomes observed in the causal analysis of delinquency. Even though interactions are fairly common in the empirical literature on delinquency, the concept of variable interaction has not been completely incorporated into etiological theories.

²⁸ Again, Rosenberg uses the term conditional relationship in place of interactive effects. In a general sense, as implied by this statement, the terms are synonymous.

Those few persons who have directly investigated interaction in empirical studies have concluded that interactive effects provide "deeper understanding of causation and greater accuracy in prediction" (Stanfield, 1966:417; see also Palmore and Hammond, 1964:854). Further, Stanfield (1966:417) suggested that explanation of delinquency only in terms of direct causal relationships oversimplifies the situation. Accordingly, the question arises: Why have findings of interaction been acknowledged but not fully incorporated into etiological theory?

As was discussed in the preceding chapter, the theoretical and methodological approaches taken in the sociological study of delinquency have increasingly placed greater emphasis on explaining the relative importance and position of variables within causal structures. However, the hypothesis of variable interaction runs counter to the implicit assumption of such causal sequences: that each variable has causal efficacy within itself, independent of other causal variables (Hirschi and Selvin, 1966:267). Albert K. Cohen (1970:124-125) has called this "the assumption of intrinsic pathogenic qualities". The finding that a variable has no independent and direct causal relationship to delinquency has often led to the conclusion that it has no causal qualities at all (Hirschi and Selvin, 1966:267), but such a conclusion dismisses variables which may be causally important in more complex ways. Moreover, Rosenberg (1968:106) has observed that the conditional relationships revealed within variable interaction have often been greeted as "an embarrassment, a digression, or simply an irritant" by sociologists seeking explicit and simple causal explanations.

Findings of Interaction

A variety of empirical findings indicate that familial variables interact with other non-familial variables in affecting delinquent behavior.²⁹ For example, Palmore and Hammond (1964), Stanfield (1966), and Jensen (1972) have explored various interactive effects and the theoretical implications of such findings.

Palmore and Hammond found interactive relationships between legitimate and illegitimate opportunity variables. Family deviance, used as an indicator of illegitimate opportunity, was found to interact with two measures of legitimate opportunity: race and school success. More specifically, family deviance increased the risk of delinquency among blacks and those failing in school. Palmore and Hammond (1964:854) concluded that their data "convincingly suggest that interaction effects of legitimate and illegitimate opportunity structures are worth looking for: either variable taken singly might leave out a significant portion of the story." The authors argued that these findings were consistent with Cloward and Ohlin's theory of differential opportunity which linked delinquency to blocked legitimate opportunities and the availability of illegitimate (illegal) opportunities.

Stanfield (1966) examined the interactional relationships between family, socioeconomic status, and gang variables. Family influences were indicated by paternal discipline, socioeconomic status

²⁹ Variable interaction has also been documented among variables depicting different facets of family life (Glueck and Glueck, 1950; Nye, 1958; McCord and McCord 1959; Conger, 1976) and among various background variables such as age and sex (Elliott and Ageton, 1978). These are beyond our area of concern.

by father's occupational status, and gang involvement by the level of peer activity. Stanfield reported three instances of interaction among these variables. First, father's discipline was more influential in situations of low status. Second, the impact of paternal discipline was stronger for youths with frequent peer involvement, thus, father's discipline interacted both with occupational status and peer involvement. Third, peer activity interacted with occupational status in that the relationship between delinquency and peer activity was intensified at higher status levels. Stanfield concluded that etiological explanations must consider these complex causal relationships revealed by findings of variable interaction.

Jensen (1972) sought to test differential association theory by investigating interactive effects among delinquent peers, family, and delinquent definitions. Differential association theory holds that family life is relevant to delinquency only when there are delinquent patterns available to learn. Delinquent patterns are then said to lead to the acquisition of delinquent definitions. Using three measures of the availability of delinquent patterns (delinquent friends, trouble in neighborhood, delinquency in school), Jensen found that paternal supervision and support were independently related to delinquency, regardless of the level of delinquent patterns. In other words, paternal supervision and support did not interact with delinquent patterns. However, his data also revealed that paternal supervision and support did interact with delinquent definitions in influencing delinquency. Thus the effect of paternal supervision and support on delinquency was conditioned by the level of definitions favorable to violating the law. His findings (Jensen,

1972:572) indicated that 75 percent of those youth with low paternal supervision and definitions favorable to law violation committed delinquent acts as compared to 33 percent of those with low paternal supervision and definitions unfavorable to law violation.

Findings of variable interaction have also been observed by some researchers who were not expressly looking for them. In fact, interactive effects have been uncovered in a great many empirical studies of delinquency, however, such interaction frequently was not identified, even though the researcher may have desired to specify the conditions under which a variable is related to delinquency. A number of specific findings of interaction provide additional insight into how family variables interact with other variables in influencing delinquency. Linden and Hackler (1973) investigated how attachments to parents, conventional peers, and deviant peers are related to delinquency. They found that attachment to parents and attachment to conventional peers were negatively related to misbehavior, but, surprisingly, attachment to deviant peers was not associated with delinquency. Attachment to deviant peers, however, did interact with attachment to parents and conventional peers to affect delinquent involvement. When attachment to parents and conventional peers was absent, ties to deviant peers were conducive to delinquent behavior.

McCord and McCord (1959:86) reported findings which revealed interactive effects among home cohesiveness and type of neighborhood. The type of neighborhood influenced delinquency only when the home atmosphere lacked cohesiveness. Conversely, in good neighborhoods, the cohesiveness of the home had little effect on delinquency.

Hirschi's (1969:131-132) data revealed that parental attachment

interacts with attachment to school and attachment to teachers. The relationship between any one of these variables and delinquency varied depending on the level of the other two variables. For example, while the data revealed a negative relationship between attachment to school and delinquency, it was much stronger when parental attachment and attachment to teachers was low (Hirschi, 1969:131-132). Hirschi (1969:32) further observed that "These interactions suggest that among those with high stakes in conformity, additional attachments and commitments are less important than among those with low stakes in conformity." This means that the impact of additional indications of attachment will vary depending on the level of a youth's stake in conformity (social bond). Thus Hirschi acknowledged that when considering several measures of attachment and/or commitment, findings of interaction are a likely outcome. One would then expect attachment to parents to interact with various other attachments and commitments. Additionally, Hirschi (1969:157-158) and Conger (1976: 28-29) found that stake in conformity interacted with number of delinquent peers in affecting delinquency. The impact of delinquent friends on delinquency was found to depend on stakes in conformity, such that the greater the number of delinquent friends, the greater the effect of stakes in conformity. Stated differently, the negative relationship between stakes in conformity and delinquency was intensified by larger numbers of delinquent friends (see Table III, page 55).

To summarize, while Jensen (1972) found paternal supervision and support to be independently related to delinquent behavior, several findings of interaction suggest a more complex relationship between the family and delinquent behavior. Stanfield (1966) found that

peer involvement interacted with paternal discipline. Linden and Hackler's (1973) study revealed that attachment to deviant peers interacted with attachment to parents in affecting delinquency. However, studies by Jensen (1972) and Hepburn (1976) failed to find interactive effects between delinquent friends and parental support. McCord and McCord (1959) found that the type of neighborhood interacted with family cohesiveness. In contrast, Jensen (1972) did not find interaction between neighborhood trouble and paternal supervision or paternal support. Finally, Jensen's (1972) data revealed that delinquent definitions did interact with paternal supervision and paternal support.

A Research Model of Interactive Effects

Although these findings of variable interaction are not entirely consistent, they do indicate that family factors interact with other variables in affecting delinquency. Previous findings of interaction can be depicted in a very general model considering interactive effects. At this point a theoretical model which incorporates a wide range of variables is required since findings of interaction have been based on variables which have been conceptualized in divergent ways. Figure 4 presents such a model which considers all possible interactive effects among the independent variables.

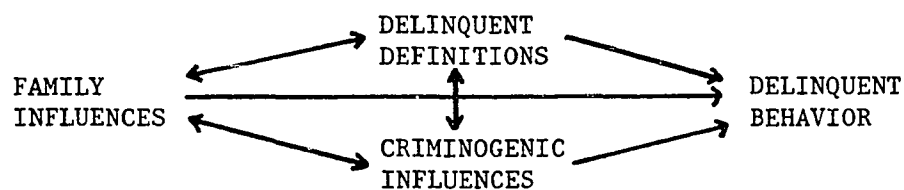


Figure 4. A causal model of delinquent behavior involving interactive effects.

Criminogenic influences encompass delinquent friends, attachment to delinquent peers, and trouble in neighborhood. Family influences are as of yet unspecified, but include such notions as attachment to parents, parental discipline, parental supervision, and parental support. Finally, delinquent definitions entail the acquisition of personal beliefs which are consistent with, and allow, delinquent behavior.

The postulated interactive effects among family influences and delinquent definitions and between family and criminogenic influences are based upon the findings reported earlier. Interaction between delinquent definitions and criminogenic influences is derived from Hirschi's (1969:157-158) and Conger's (1976:28-29) findings that stakes in conformity interact with delinquent peers. It is assumed that stakes in conformity include definitions unfavorable to the violation of the law, therefore the counterpart, delinquent definition, should interact with delinquent peers in an opposite fashion. The interactive effect between family and criminogenic influences and between criminogenic influences and delinquent definitions is consistent with differential association theory. This perspective contends that family conditions affect delinquency only when there are delinquent patterns (criminogenic influences) available. Similarly, delinquent patterns are maintained to influence delinquency only when youths develop definitions favorable to violate the law (Jensen, 1972; Matsueda, 1982). The present model intentionally over-extends interactive effects to include all possible interactive effects among independent variables. Contrary to differential association theory, this model also postulates that all variables have an independent

effect on delinquency. Such a claim is consistent with control theory (Hirschi, 1969; Jensen, 1972).

This model formed the conceptual basis for the following research study. The research explored interactive effects among family influences, delinquent definitions, and criminogenic influences.

CHAPTER IV
INVESTIGATING VARIABLE INTERACTION:
THE RESEARCH DESIGN

Chapter II reviewed how the family has been conceptualized in causal explanations of delinquent behavior. While some theoretical perspectives and research findings have suggested that familial variables interact with non-familial variables in affecting delinquency, the causal role of the family has not been actively conceptualized in terms of such interactive effects, nor has variable interaction been investigated with statistical techniques which allow for significance testing. The research study reported here sought to directly analyze whether a number of family variables interact with various non-familial variables in affecting delinquent behavior. The study utilized analysis of variance (ANOVA), a multivariate statistical model, to distinguish significant independent and interactive effects.³⁰ Significant interactive effects identified through ANOVA were then analyzed through tabular analysis in order to provide a more precise understanding of how variables interact in affecting delinquency involvement.

The research design initially centered on three general causal dimensions: family influences, delinquent definitions, and criminogenic influences. These particular dimensions were selected for

³⁰ The SPSS (Nie et al., 1975) version of ANOVA was used. It should be cautioned that ANOVA is not a predictive model and therefore cannot directly reveal causation. However, it is a statistical tool which clearly identifies significant interactive effects.

analysis because much theoretical and empirical controversy has centered on them, especially with respect to their causal structure (ordering) and relative importance. Through factor analytic procedures, these three general dimensions were refined into an ANOVA model which included five factors (independent variables) and delinquent behavior as the criterion variable (dependent variable).³¹

The ANOVA method provides tests of significance for main and interactive effects of the different factors on the criterion variable: the joint additive effects of all factors considered together, the main effect of each factor considered individually (while controlling for all other effects, main and interactive), the joint interactive effects, and each possible combination of variable interaction. An additive, linear model would be indicated if one or more of the main effects is or are significant and the interactive effects are not, that is, the factors have independent effects on the criterion variable. However, if any of the interactive effects are significant, a curvilinear, non-additive model would be indicated. As a result, the main effects would have to be considered in light of these findings of interaction and more complex causal relationships would be implied. While the results of ANOVA do have causal implications, it is not a predictive model and therefore cannot directly reveal

³¹ The SPSS (Nie et al., 1975:411) version of ANOVA is limited to five factors, thus, analysis necessarily focused on a select group of factors. Additionally, the ANOVA procedures require these factors to be categorical while the criterion variable is assumed to be interval scale. Various options exist within the SPSS ANOVA subprogram for calculating the main effects (Nie, et al., 1975:405-408, 413-416). Further, the level of interactive effects can be specified and higher-order interactive effects pooled with the error term.

causation. ANOVA does provide a useful statistical tool to specifically analyze interactive effects.

The data utilized for this analysis were gathered in 1965 as a part of the Richmond Youth Project by the Survey Research Center of the University of California, Berkeley.³² The population consisted of 17,500 students entering 11 junior and senior high schools in western Contra Costra County in the San Francisco Bay area.³³ The original stratified random sample of 5,545 students consisted of both black and nonblack, male and female adolescents. Complete data were obtained from 4,077 youngster or 73.5 percent of the sample. The present analysis was conducted on the 1,588 nonblack males in the sample because the reliability of the black subsample has been questioned (Hirschi: 1969:78-80) and other research has focused on the nonblack subsample (Hirschi, 1969; Jensen, 1972; Conger, 1976; and Matsueda, 1982).³⁴

³² The data were made available by the Drug Abuse Epidemiology Data Center, Institute of Behavioral Research, Texas A & M University. Neither they nor the original investigators are responsible for the analysis or interpretation presented here.

³³ Hirschi (1969:35) described this area as follows: "Western Contra Costra County is part of the San Francisco-Oakland metropolitan area, bounded on the south by Berkeley and on the west and north by San Francisco and San Pablo Bays. In the hills to the east live professionals and executives who commute to Berkeley, Oakland, and San Francisco and the major city in the western part of the county, Richmond. The flatland between the hills and the bay is populated predominantly by manual workers and, since the beginning of World War II, by a Negro population that has grown from less than 1 to more than 12 percent."

³⁴ For a more detailed discussion of sampling, data gathering procedures, and nonresponse bias see Hirschi (1969:35-46). It is important to note that Hirschi (1969:46) found no significant difference between respondents and nonrespondents when comparing the relationships between certain school-related variables and delinquency.

The analysis of variable interaction in this study sought to assess the effect of family influences on delinquent behavior in relation to two other general dimensions commonly associated with delinquency: delinquent definitions and criminogenic influences. The Richmond Youth Project data provided a variety of questionnaire items reflecting these dimensions. Beginning with the criterion variable, delinquent behavior, let us now consider how these dimensions were operationalized into the research model.

Delinquent Behavior

Measuring delinquency is a matter of no little debate in the field of criminology (Nettler, 1978:54-117; Hindelang et al., 1981). Controversy centers on the use of official delinquency statistics versus self-reported delinquency data, and involves arguments too detailed to adequately address here. The present analysis relied upon a self-reported delinquency measure, therefore it may be worthwhile to briefly acknowledge the limitations often associated with such a measure (Nettler, 1978:107-117; Ageton and Elliott, 1978).

The reliability of self-report measures has been questioned on the contention that many juveniles may fail to respond consistently to such questionnaires. The validity of self-reports has also been more extensively challenged, based on arguments that some youths over-report or underreport their delinquent acts. Ageton and Elliott (1978) have also identified several additional common shortcomings of self-report instruments. The most significant of these deficiencies is that the scales that have been used to measure delinquency have usually been truncated, concentrating on less serious offenses. Such scales

are not representative of the full range of delinquent behavior, thereby limiting their generalizability to relatively trivial forms of misconduct. Self-report measures also have typically employed ambiguous response categories such as "often", "sometimes", or "never", thus they have failed to measure offense frequency. Additionally, overlapping items may measure the same behavioral event or one delinquent episode may involve more than one offense. Finally, some self-report measures raise questions of accuracy because respondents are asked to recall delinquent acts that have taken place much earlier in their lives.

The self-reported measure of delinquent behavior incorporated into the Richmond Youth Project data, and used for the present study, was patterned after the delinquency scales of Nye and Short (1957) and Dentler and Monroe (1961)(Hirschi, 1969:54-57). It involved six questionnaire items which sought to measure acts varying in degrees of seriousness, but still emphasizing less serious types of delinquent behavior.

1. Have you ever taken little things (worth less than \$2) that did not belong to you?
2. Have you ever taken things of some value (between \$2 and \$50) that did not belong to you?
3. Have you ever taken things of large value (worth over \$50) that did not belong to you?
4. Have you ever taken a car for a ride without the owner's permission?
5. Have you ever banged up something that did not belong to you on purpose?
6. Not counting fights you may have had with a brother or sister, have you ever beaten up on anyone or hurt anyone on purpose?

Response categories to all six items were identical: (A) No, never; (B) More than a year ago; (C) During the last year; (D) During the last year and more than a year ago. Replies structured in this

way tapped more than one dimension of delinquency involvement. They assessed the "recency" of delinquency, the "persistence" of law-breaking behavior, and, indirectly, the "frequency" of delinquent acts (Nettler, 1978:101). Three indexes have previously been constructed which reflect each of these dimensions (Hirschi, 1969:62-63). Response scoring for each index was as follows:

TABLE V
SCORING OF SELF-REPORTED DELINQUENCY INDEXES

Response	Recency	Standard	Persistence
No, never	0	0	0
More than a year ago	0	1	1
During the last year	1	1	2
During the last year and more than a year ago	1	1	3

The recency index reveals delinquent acts committed during the last year, while the standard index considers the total number of delinquent acts ever committed. The persistence index indirectly weighs frequency and thereby emphasizes the persistence of delinquent acts. Hirschi (1969:62-63) argued that the recency index provides better conceptual clarity primarily because it relies on acts committed in the recent past. He maintained that involvement in delinquent acts and the values of causal variables change over time. Thus, the response given to questionnaire items tapping causal factors may not be the same as would have been made had the questionnaire been administered at the time that the delinquent act was committed. For these reasons, the current study utilized the same recency index.

Hirschi (1969:55-64) has offered detailed evidence that this self-report measure is a valid measure of delinquency. He claimed

that fact (logical) validity was provided by including a range of offenses which "are commonly thought to result in punishment by agents of the larger society, if detected" (1969:56). Further, he reported that the self-report items were associated in expected directions with other questionnaire items dealing with related problem behaviors such as truancy, school suspension, self-reported school suspension, and self-reported contact with police. Hirschi also argued that the total number of delinquencies (total frequency) is not pertinent to etiological considerations because delinquent activity changes over time:

Since delinquent activity presumably climbs rapidly to a peak at fourteen or fifteen years of age and then declines, it must be assumed that the values of variables conducive to delinquency also change during this period, and thus a fair test of the theory [control] would require restriction of the period during which delinquent acts could have been committed. Otherwise, the current value of the independent variable may not be what it was when the delinquent acts were committed. (Hirschi, 1969:62).

Finally, Hirschi sought to validate the self-report measure by comparing it with official data collected on all male subjects. Thus, as his arguments indicate, the self-report measure incorporated into the Richmond Youth Study was developed as an attempt to address at least some of the concerns of validity commonly associated with self-report measures.

Family Influences

This study's consideration of family influences focused on the nature of parent-child relationships. Parent-child relationships are multi-dimensional and have been conceptualized in many ways: attachment to parent(s) (Hirschi, 1969; Linden and Hackler, 1973;

Johnson, 1979); parental love and concern (Johnson, 1979); parental support (Jensen, 1972; Hepburn, 1976); parental discipline (Glueck and Glueck, 1950; McCord and McCord, 1959; Stanfield, 1966; Conger, 1976). The Richmond Youth Project attempted to measure many different aspects of the parent-child relationship and numerous questionnaire items were directed toward this end.³⁵ Most items were asked separately in regard to the mother and father; thus, there are numerous parallel items. A factor analysis procedure was employed in the present study to identify separate family dimensions within the data. The factor analysis procedure is able to reveal the most significant dimensions, or factors, within the data and identify which questionnaire items most strongly relate to (load on) each factor. In turn, each factor can be labeled by the items associated with it.

Initially, all family related items were included in a "principal factoring with iteration" factor analysis (type PA2, Nie et al., 1975:480) with oblique rotation (see Johnson, 1979 for a similar application). The only interpretable results from this factor analysis were that father-related items loaded on the first factor and the mother-related items loaded on the second factor.³⁶ The items related to father discipline loaded both on factor 1 and factor 3, while those

³⁵It should be noted that data on parent-child relationships were derived from questionnaire responses of the adolescent. Thus, it is the youth's perceptions of these relationships that are tapped and not those of parents or of objective reality. There may be a serious discrepancy between the perceptions of the youth compared to that of the parents. However, it can be argued that the youth's perceptions are what is important in influencing whether he or she will become involved in delinquent acts, even if those views are discordant with the perceptions of parents.

³⁶Johnson's (1979:77) results from a parallel analysis of different data revealed similar results.

items related to mother discipline loaded just on factor 3. Thus, while the third factor indicated a discipline dimension, its structure was not simple. Therefore, separate factor analysis procedures were carried-out for the mother and father items, excluding discipline items.³⁷

Factor analysis of the separate mother and father items revealed virtually identical results with the qualification that father items tended to load more strongly on each factor and the factor order was slightly different.³⁸ Tables VI and VII (pages 75,76) indicate the factor loadings of the obliquely rotated factor-pattern matrix for the father and mother items respectively. Four factors are clearly indicated: attachment to parents, parent's interest in school, parental supervision, and time spent together.

The factor loadings of Tables VI and VII formed the basis for generating composite indexes for parental attachment, interest in school, supervision, and time spent together. As a prerequisite, only those items which loaded distinctly on one factor for both parents were retained as measures of that factor. To illustrate, while father item thirty-two loaded heavily on the attachment factor, the parallel mother item (MOTHER 32) did not, therefore it was discarded.

Parallel items for mother and father can pose a problem for

³⁷A principal factoring with iterations and oblique rotation was employed (type PA2, Nie et al., 1975;480).

³⁸This differing order of factors suggests that the roles of the mother and father may be slightly different. The first factor extracted accounts for the greatest amount of variation among items, the second the next greatest amount of variation, and so forth. Thus, time and interest in school are switched in order for the father and mother and are of different importance for each.

TABLE VI

FACTOR LOADINGS FOR FATHER-RELATED ITEMS

	Factor 1 Attachment To Father	Factor 2 Father's Interest in School	Factor 3 Paternal Supervision	Factor 4 Time Spent Together
FATHER10	0.20188	0.14810	0.01773	0.14471
FATHER11	0.63166*	0.02328	0.03460	0.03606
FATHER12	0.34402	0.38507	0.02993	0.05229
FATHER13	0.52162*	0.10266	0.12914	0.04538
FATHER14	0.00138	0.30983	0.14841	0.02492
FATHER15	0.01166	0.02280	0.79086*	0.00717
FATHER16	0.01974	0.00208	0.70132*	0.03880
FATHER17	0.54747*	0.19090	0.10927	0.02238
FATHER18	0.28368	0.42372*	0.02702	0.04753
FATHER19	0.05796	0.54362*	0.02942	0.00799
FATHER20	0.03773	0.06389	0.01212	0.60079*
FATHER21	0.05537	0.04091	0.05672	0.64241*
FATHER22	0.20395	0.04875	0.02709	0.31446
FATHER23	0.10339	0.07273	0.07457	0.26704
FATHER24	0.48747*	0.16921	0.01787	0.09411
FATHER25	0.49805*	0.14724	0.05259	0.04686
FATHER32	0.41087*	0.17031	0.01147	0.10585
PARENT40	0.60508*	0.09737	0.02878	0.05349
PARENT42	0.46347*	0.02199	0.05307	0.01268

* Substantial factor loading scores

NOTE: Negative signs were dropped for some of the loadings on this and subsequent tables because they merely reflect the direction of the questionnaire wording.

TABLE VII

FACTOR LOADINGS FOR MOTHER-RELATED ITEMS

	Factor 1 Attachment to Mother	Factor 2 Time Spent Together	Factor 3 Maternal Supervision	Factor 4 Mother's Interest in School
MOTHER10	0.23280	0.10702	0.04364	0.12827
MOTHER11	0.57581*	0.03935	0.06495	0.02380
MOTHER12	0.36071	0.11340	0.01541	0.22237
MOTHER13	0.49312*	0.01865	0.13225	0.00122
MOTHER14	0.06583	0.00451	0.18853	0.16824
MOTHER15	0.04666	0.04068	0.79919*	0.04897
MOTHER16	0.07684	0.01003	0.62370*	0.08175
MOTHER17	0.49908*	0.08398	0.11001	0.15677
MOTHER18	0.23501	0.01909	0.02356	0.49850*
MOTHER19	0.05257	0.01333	0.01413	0.55611*
MOTHER20	0.06950	0.59773*	0.01758	0.04478
MOTHER21	0.01623	0.59786*	0.00725	0.04982
MOTHER22	0.11606	0.34916	0.01854	0.10176
MOTHER23	0.16582	0.18664	0.05441	0.07405
MOTHER24	0.43984*	0.17320	0.05674	0.02212
MOTHER25	0.59170*	0.15089	0.04302	0.01510
MOTHER32	0.33286	0.09960	0.03902	0.11453
PARENT39	0.45206*	0.17780	0.02888	0.04028
PARENT41	0.43103*	0.01091	0.01668	0.01236

* Substantial factor loading scores

developing composite scores, especially when there is discrepancy between responses about each parent and when the mother or father is absent. Should the factors be measured by scores from one parent or both parents? Hirschi's (1969:104-105) analysis of the data used in the present study revealed that scores from either parent are appropriate as the other parent's score was usually very similar and that a composite score of both parents adds little explanatory power.³⁹ Therefore the composite index for each factor was computed on the basis of the father-related item scores.

All family factors were additive indexes of questionnaire items identified in the Appendix. Paternal attachment (PATATT) was indicated by an additive index score of seven questionnaire items which ranged from 7 to 24. The analytic techniques used in the present study required all factors to be categorized. Accordingly, paternal attachment was categorized into three different levels referring to extent of paternal attachment: high (index scores of 7,8,9,10 [32.3%]), medium (index scores of 11,12,13,14, [40.2%]), and low (index scores of 15 through 24 [27.5%]).⁴⁰ Father's interest in school (INTSCHOL)

³⁹ Matsueda (1982), also using the Richmond Youth Project data, used a composite score for both parents as a measure of parental supervision. Jensen's (1972) composite measure of parental supervision and support relied on father-related items. Finally, Johnson (1979:80-81) argued that the highest score for either parent should be used as that particular parent's "psychological presence" determines parental impact.

⁴⁰ The scoring techniques used for the items which made-up the additive indexes for PATATT, INTSCHOL, PATSUPER, and TIME were such that higher index scores represented low levels of the factor and low index scores represented high factor levels. For example, index scores for paternal attachment ranged from 7 to 24; a high index score indicated a low level of attachment. Refer to the Appendix for scoring of individual questionnaire items.

was an additive index of two questionnaire items with a range from 2 to 6. This factor was categorized into three levels according to the amount of interest the father showed in school: high (an index score of 2 [34.8%]), medium (index scores of 3 and 4 [54.3%]), and low (index scores of 5 and 6 [11.0%]). Paternal supervision (PATSUPER) was the sum of two questionnaire items relating to whether the father knew where the youth was and with whom. Index scores ranged from 2 to 6 and were categorized into three different levels of paternal supervision: high (an index score of 2 [49.0%]), medium (an index score of 3 [20.2%]), and low (index scores of 4, 5, and 6 [30.9%]). Time spent between father and son (TIME) was also a composite index of two questionnaire items with a range from 2 to 6. Index scores were grouped into three different categories reflecting the amount of time spent between father and son: high (index scores of 2 and 3 [28.6%]), medium (an index score of 4 [37.9%]), and low (index scores of 5 and 6 [33.6%]). Finally, paternal discipline (PATDISC) was indicated by five questionnaire items specifically relating to the method and punitiveness of the father's disciplinary techniques. The discipline index was the sum of these five items with scores ranging from 5 to 15. Paternal discipline was categorized into three levels of strictness: low (index scores of 5, 6, and 7 [34.6%]), moderate (index scores of 8 and 9 [40.3%]), and high (index scores from 10 to 15 [25.2%]).

Criminogenic Influences

A variety of theoretical perspectives maintain that criminogenic influences, emanating from an adolescent's social environment,

are crucial to the etiology of delinquent behavior. Differential association theory, for instance, is based upon the notion that modern society is characterized by varied and inconsistent normative standards (Sutherland and Cressey, 1966:96). People become criminal because of contact with criminal patterns and also because of isolation from anti-criminal patterns (Sutherland and Cressey, 1966:81). According to differential association theory:

behavior patterns presented with greater frequency, presented for a longer time, presented earlier in life, and presented from a more prestigious source will have more weight in the process producing delinquent or nondelinquent behavior (differential association) (Matsueda, 1982:489).

In order to examine these notions of frequency, duration, priority and especially intensity, delinquent patterns have often been operationalized in terms of number of delinquent friends and attachment to peers (Short, 1957; Hirschi, 1969; Jensen, 1972; Conger, 1976; Matsueda, 1982).⁴¹ Close associational ties with larger numbers of delinquent friends would mean that delinquent patterns are presented with greater frequency, duration, priority, and intensity. Sutherland's theory of differential association, however, does not focus solely on peer associations; in fact, the theory is framed in the larger cultural context of differential social organization. Thus, differential association theory conceptualizes criminogenic influences in terms of people acquiring sets of prosocial and procriminal

⁴¹Matsueda (1982:490-493) has taken issue with studies which have tried to test differential association theory merely on the basis of investigating the availability of delinquent behavior patterns. He contended that the crucial test of the theory is in regard to the learning of definitions favorable to the violation of the law and, specifically, that this variable intervenes between other causal factors and delinquent behavior.

conduct standards through associational ties with others in their social environment (Gibbons, 1979:35).

It is unlikely that criminogenic influences can be empirically expressed or measured by a single dimension. To investigate how criminogenic influences could be incorporated into the present research model, a factor analysis of questionnaire items relating to the individual's community environment and peer relationships was employed.⁴² Six major factors were identified (Table VIII, page 81). The first three relate to community dimensions: community social disorganization, attachment to the community, and interaction within the community. The correlations between these factors range between .45 and .60, indicating that while they are distinct dimensions, they are still moderately related. The fourth factor related to peer attachment and the fifth to delinquent friends. The sixth factor was identified by a solitary loading on an item having to do with how youths perceive their family compared to other families in their neighborhood.⁴³ The factor analysis therefore indicated that the data relating to criminogenic influences are structured according to three theoretical constructs: the community environment, attachment to peers, and delinquent friends.

The Community Environment. In a traditional theoretical sense,

⁴² A "principal factoring without iterations" factor analysis (type PA 1, Nie et al., 1975:479-480), with varimax rotation was utilized. The varimax rotation allows the variance between factors to be maximized. This was used because distinct (orthogonal) dimensions of the data were assumed.

⁴³ The sixth factor was dropped from further consideration because it was indicated by only one item and was moderately correlated with two other community factors (community attachment and community interaction).

TABLE VIII

FACTOR LOADINGS ON ITEMS RELATING TO CRIMINOGENIC INFLUENCES

	Factor 1 Social Disorganization	Factor 2 Attachment To Community	Factor 3 Community Interaction	Factor 4 Peer Attachment	Factor 5 Delinquent Peers	Factor 6 Family Compare
KEEPU	0.34153	0.20101	0.25435	0.07841	0.47350*	0.03631
YOUNGTRO	0.61985*	0.17669	0.05107	0.05990	0.01333	0.01353
CHILPLAY	0.47149*	0.04405	0.26088	0.03061	0.25368	0.12995
MUNEMPLO	0.66566*	0.02484	0.06393	0.00143	0.20802	0.15799
MOVNIN	0.67598*	0.16442	0.08957	0.02205	0.03383	0.10241
FLKNWEO	0.07845	0.03417	0.73219*	0.13048	0.12875	0.23982
FRLVNG	0.37557	0.21856	0.48456*	0.08375	0.19319	0.12252
NGBCARE	0.38511	0.10554	0.55061*	0.02252	0.05634	0.00411
TYPNGB	0.19322	0.31578	0.11238	0.00485	0.58919*	0.18863
FLCOMP	0.06690	0.08721	0.08718	0.00848	0.01565	0.84479*
FLSTAY	0.15818	0.61242*	0.11202	0.15465	0.09656	0.12376
NGBIMPRO	0.10717	0.62579*	0.03011	0.09640	0.10561	0.24125
LKNGB	0.10378	0.63226*	0.42500*	0.08597	0.15610	0.18676
LVNGB	0.10840	0.67842*	0.37180	0.07709	0.13660	0.18011
BELIKFR	0.04757	0.07801	0.11866	0.76936*	0.11829	0.00748
RESPFR	0.00924	0.02936	0.01824	0.79518*	0.06932	0.00962
FRPICKUP	0.25256	0.19373	0.10167	0.16006	0.58003*	0.27171

* Substantial factor loading scores

conceptualizations of the community's influence on delinquent behavior have centered on social disorganization, which involves "the breakdown or disruption of effective social bonds, primary group relations, and social controls in neighborhoods, communities, and nations" (Gibbons, 1979:45). Initial conceptions of social disorganization were based on ecological patterns associated with high delinquency areas: rapid population change, poor housing and health conditions, and high crime rates (Gibbons, 1979:41). Later, social aspects began to be emphasized over spatial configurations (Palen, 1975:86-87). Both Shaw and McKay and Sutherland saw social disorganization as involving alternative and inconsistent normative and behavioral standards (Sutherland and Cressey, 1966:96; Finestone, 1976:30). However, Johnstone (1978b:51) has observed that their emphasis on social-psychological explanations of delinquent behavior served "to divert attention away from the community as the generating context of deviant behavior."

Regarding the family, Johnstone (1980:91) has stated that "It is likely, however, that family systems are strongly influenced by environmental circumstances, and that the family itself may have a different relationship to delinquency in different types of social environments." His research (Johnstone 1978a:311) revealed that the influence of the family varied both with the type of delinquent behavior and with the community setting in which the adolescent lived. The family had a stronger relation to less serious delinquencies while community factors were more heavily related to serious delinquencies (Johnstone, 1978a:310). Johnstone (1980:92) concluded:

These patterns suggest a shifting balance between the role

of the family and the role of the community in explaining contranormative behavior. Where the external environment is stable and provides a modicum of safety and security, disrupted family conditions can and do generate delinquent outcomes. Where communities are crowded and deteriorated, and where the economic press of life is constant and ubiquitous, however, the net added impact of a bad family situation is minimal. Paradoxically, it may not be in the heart of the inner-city slum that family disintegration has its most significant role in the etiology of delinquency. Deteriorated families seem to have a stronger impact on youngsters in benign than in hostile ecological settings.

Thus, Johnstone's (1978a) research offered some interesting findings regarding the impact of the family and community on delinquent behavior. However, his research was primarily directed at the investigation of direct, independent relationships with delinquent behavior (1978a:303) and did not consider interactive effects.

The Richmond Youth Project data contain numerous questionnaire items related to the youth's neighborhood. Consideration of the neighborhood offers an indication of an adolescent's community environment as he or she perceives it. Even though by adolescence a youth's affective community may encompass a wide area, the neighborhood conception of community is at least as valid as the more typical census tract measures (Johnstone, 1978b:53).

Since the ANOVA model is limited in the number of factors it can consider, the present study focused on community social disorganization for inclusion in the research model. The factor analysis of criminogenic influences (Table VIII, page 81) revealed that it was the first factor extracted, indicating that it accounts for the largest amount of variance in the data. Additionally, as previously discussed, community social disorganization has been a popular theoretical construct in regard to the etiological importance of the

community environment.

An additive composite index of community social disorganization (SOCDISOR) was constructed from three questionnaire items referring to adult male unemployment (MUNEMPLO), whether young people in the neighborhood are "always getting into trouble"(YOUNGTRO), and perceptions of the neighborhood being "run down" by people who are moving in (MOVNIN). The specific questionnaire items and the scoring techniques used are indicated in the Appendix. The resulting index scores ranged from 3 to 15 and were categorized into three levels of social disorganization: low (index scores of 3,4,5 [27.0%]), medium (index scores of 6 and 7 [42.6%]) and high (index scores of 8 through 15 [30.4%]).

Delinquent Friends. Research has shown that a majority of delinquent acts are committed in the presence of other juveniles (Reiss and Rhodes, 1961; Carter, 1968; Erickson, 1973). Additionally, there is extensive evidence that lawbreakers are very likely to have delinquent friends (Reiss and Rhodes, 1961; Erickson and Empey, 1965; Hirschi, 1969; Hindelang, 1973; Linden and Hackler, 1973; Liska, 1973). However, the precise role of delinquent associates in generating delinquency is not so clear (Johnson, 1979:26, 64).

Delinquent friends are generally viewed as important in delinquency causation because they encourage the learning of attitudes, values, and behaviors which are conducive to law violations. Moreover, Johnson has observed that "locating the place of delinquent associations in the complex etiology of delinquency is perhaps the

most basic and most discussed issue in the literature."⁴⁴ The etiological role of delinquent friends has been the subject of considerable controversy, especially regarding the degree of attachment to peers and the acquisition of delinquent definitions. A large share of the relevant literature on this question has already been discussed in Chapter II. Briefly, Jensen (1972), Hepburn (1976), and Johnson (1979) have advanced the view that delinquent friends have a direct effect on delinquency. Jensen maintained that peer related, situational inducements and peer group processes pressure adolescents to deviate (Short and Strodtbeck, 1965; Briar and Piliavin, 1965). Conversely, Matsueda (1982) argued that the effect of delinquent friends is mediated by delinquent definitions, a strict differential association position and the results of his research supported this contention. Finally, Stanfield (1966) found that peer involvement interacted with other variables, including paternal discipline.

Interactive effects between delinquent friends and various family variables have not been thoroughly analyzed. Accordingly, because it has been an important, yet highly controversial aspect of criminogenic influences, delinquent friends was incorporated into the research model. Delinquent friends (DELFRNDS) was indicated by the questionnaire item, "Have any of your close friends been picked up by the police?"⁴⁵ Possible responses ranged from no delinquent friends to "four or more" delinquent friends. These responses were

⁴⁴ See Johnson (1979:25-27, 117-120) for a review of the findings on delinquent associations.

⁴⁵ This is the same item used by Hirschi (1969), Jensen (1972), and Matsueda (1982) to indicate delinquent friends. See the Appendix for the scoring on this item.

then categorized into three categories: no delinquent friends, one or two delinquent friends, and three or more delinquent friends.

Attachment to Peers. Attachment to peers has sometimes been viewed as conducive to delinquency and at other times as a barrier against delinquency. Hirschi's (1969:145-146) analysis revealed that those adolescents attached to peers were least likely to have committed delinquent acts. However, Hindelang (1973) reported a slight positive relationship between peer attachment and delinquency, while Conger (1976) found virtually no relationship between these two variables and posited that the normative orientation of peers is critical in determining whether delinquent behavior is reinforced or encouraged by peer attachments (see also Akers, 1977; Linden and Hackler, 1973). Finally, Matsueda (1982) indicated that the effect of peer attachment was mediated by delinquent definitions.

Beyond these inconsistent research findings, several other findings have suggested that attachment to peers may affect delinquency in more complex ways. Hirschi (1969:151) indicated that attachment to peers interacted with number of delinquent friends in influencing delinquency involvement. A lack of peer attachment intensified the relationship between number of delinquent friends and delinquency. Linden and Hackler's (1973) research revealed that attachment to deviant peers interacted with attachment to conventional peers and parents. When attachment to conventional others was absent, ties to deviant peers were conducive to delinquent behavior. Thus, there appears to be an interrelationship between the level of peer attachment and other attachments, and the normative orientation of those to whom the youth is attached.

Following Hirschi (1969) and Matsueda (1982), attachment to peers was measured by two questionnaire items: "Would you like to be the kind of person your best friends are?" (BELIKFR) and "Do you respect your best friends' opinions about the important things in life?" (RESPFR). The index score for attachment to peers (ATTACHPE) was the sum of these two items. The resulting index scores ranged from 2 to 8 and were categorized into three levels of attachment: low (index scores of 2, 3, 4, and 5 [15.3%]), moderate (an index score of 6 [53.9%]), and high (index scores of 7 or 8 [30.8%]).

Delinquent Definitions

Each major theoretical orientation places some significance on delinquent definitions or values as influencing the possibility of delinquent behavior. Subcultural theorists generally claim that the adoption of subcultural norms and values, in contrast to socially accepted, legal standards, inevitably results in delinquent behavior. Distinct cultural standards are usually viewed as class-related, thus, subcultural theories explain crime and delinquency as a social class phenomenon. Differential association theory, however, emphasizes "definitions" which are conducive to law violating behavior. These definitions are not necessarily class-determined although differential social organization influences the variety of normative standards that exist in society. Strain theorists contend that most people share common or widely-accepted cultural norms and values. Delinquency occurs when culturally valued goals are unobtainable through legitimate means, producing frustration or "strain", which is viewed as necessary for a person to violate his or her own (and society's)

values by adopting illegitimate means to these goals. Since strain theorists generally agree that legitimate means are less available to lower socio-economic groups, crime and delinquency are assumed to be class-related. Control theorists attempt to explain conformity of behavior and contend that "there is variation in belief in the moral validity of social rules" (Hirschi, 1969:26). Belief in societal norms and values prevents deviant behavior, and conversely, "the less a person believes he should obey the rules, the more likely he is to violate them" (Hirschi, 1969:26).

A major difficulty confronting the consideration of delinquent definitions is that extensive personal and subcultural commitment to delinquent or criminal values has not been supported by research. Instead, Maccoby et al. (1958) and Jessor et al. (1969) found that allegiance to conduct values and norms is relatively uniform across social classes. Furthermore, even highly delinquent youths place a higher value on conventional accomplishments than on success in delinquency (Short, 1964; Short and Strodbeck, 1965; Lerman, 1968). Accordingly, "The most reasonable stance seems to be one proposing individual degrees of acceptance of illegalities, but with very little hard-core commitment to delinquent perceptions" (Johnson, 1979:29). This conclusion is consistent with Hirschi's (1969) findings that the degree of personal belief in the validity of conventional conduct norms is inversely associated with delinquency involvement.

Hirschi (1969:203-204) also found that an individual's belief in the moral validity of the law was consistently related to measures of attachment to parents, but that belief had a direct effect on

delinquency. There is also evidence that holding delinquent values is closely related to having delinquent friends (Short and Strodbeck, 1965; Liska, 1973; Ageton and Elliott, 1974; and Hepburn, 1976). Further, delinquent definitions apparently interact with at least two family dimensions: parental support and parental supervision (Jensen, 1972). Thus, the relationship between delinquent definitions and delinquent behavior is most likely affected by other variables.

The present research employed a factor analysis on nine questionnaire items which related to the construct, delinquent definitions.⁴⁶ The intent of this analysis was to discover if there was a latent structure to these questionnaire items. Such items as "It is alright to get around the law if you can get away with it" and "Policemen try to give all kids an even break" were included. Hirschi (1969:205) analyzed many of these items in relation to personal beliefs, as an indication of techniques of neutralization, and with respect to a lower-class value system. In addition, many of these same items were used by Jensen (1972) and Matsueda (1982) as a general measure of delinquent definitions.

The factor analysis indicated that these items make up two distinct dimensions. Table IX presents the factor loadings for the factor pattern matrix. Factor 1 appears to involve general attitudes and values which are conducive to law violations, while Factor 2 more specifically reflects attitudes toward the police--whether the youth has respect for the police and thinks that policemen give all

⁴⁶The specific factor analysis was a principal factoring with iterations and oblique rotation (Nie et al., 1975:480).

kids an even break. Furthermore, these two factors were correlated at a low level (.26), indicating that there is empirical evidence to deal with each as a separate dimension.

TABLE IX
FACTOR LOADINGS FOR ITEMS RELATING TO DELINQUENT DEFINITIONS

	Factor 1 Delinquent Definitions	Factor 2 Attitudes Toward Police
STAYNTRO	0.36391	0.04559
GETAHEAD	0.45336*	0.10104
SUCKERS	0.45248*	0.07632
RESPTPO	0.10334	0.65877*
OKLAW	0.48368*	0.24806
DELHURT	0.36610	0.09618
EVBREAK	0.02320	0.57612*
CRIMBLM	0.43018*	0.06951
CARKEYS	0.33498	0.15899

* Substantial factor loading scores

An additive composite index for delinquent definitions (DELDEF) was constructed from three questionnaire items: (1) "It is alright to get around the law if you can get away with it." (OKLAW); (2) "Suckers deserve to be taken advantage of." (SUCKERS); and (3) "Most criminals shouldn't be blamed for the things they have done." (CRIMBLM). Index scores ranged from 3 to 15 and were recorded into low (index scores of 3,4, and 5 [30.7%]), neutral (index scores of 6 and 7 [37.2%]), and high (index scores from 8 to 15 [32.1%]).

The Research Model

The primary concern of the present study was to investigate whether various family variables interacted with non-familial variables. Therefore, the data analysis considered each of the five

family factors in separate ANOVA procedures. In this way, each of the family factors could be assessed in relation to the same set of non-familial factors. The resulting research model is depicted in Figure 5.⁴⁷

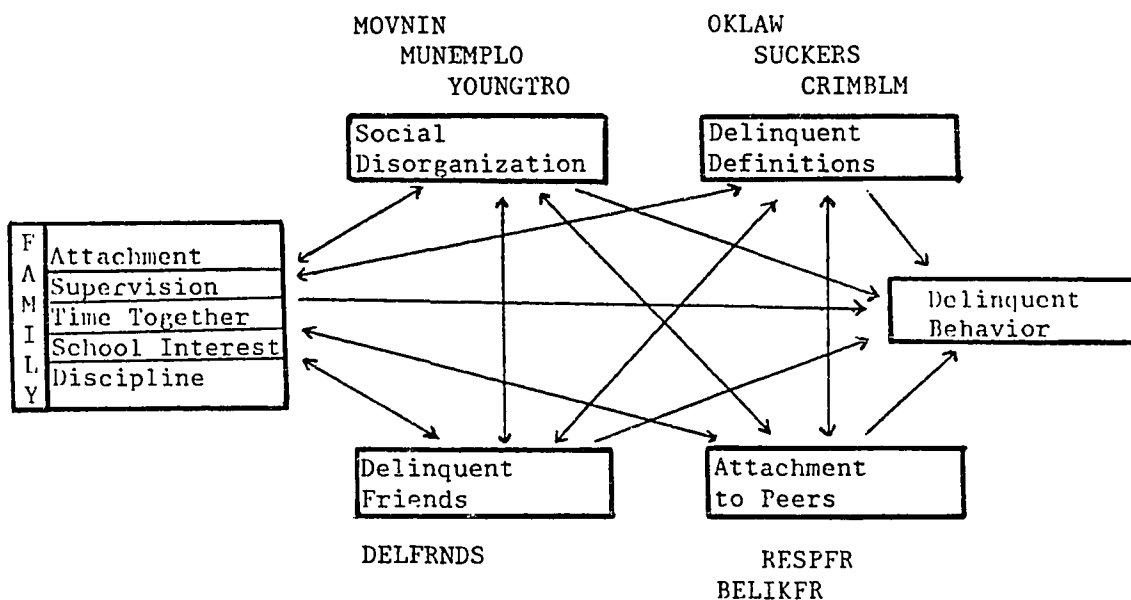


Figure 5. Research model of interactive effects

⁴⁷ It should be recognized that this research model assumes the causal effects (independent and interactive) to be from the factors to the criterion variable, delinquent behavior. However, delinquency may be causally implicated in generating certain family conditions or may lead to the development of delinquent friends (Glueck and Glueck, 1950). In other words, the causal direction may be opposite that depicted in the research model.

CHAPTER V

INVESTIGATING VARIABLE INTERACTION: THE RESEARCH FINDINGS

This chapter presents the research findings on interactive effects of familial and non-familial factors on delinquent behavior. Analysis of variance provided the statistical basis for analyzing the independent (main) and interactive effects. Additionally, tabular analysis was used to specify significant interactive effects identified by the ANOVA model.

Each of the five family factors was included in separate ANOVA runs which incorporated the same non-familial factors and criterion variable (delinquent behavior). To illustrate, one ANOVA run included paternal attachment (PATATT), community social disorganization (SOCDISOR), delinquent definitions (DELDEF), attachment to peers (ATTACHPE), and delinquent friends (DELFRNDS); while another ANOVA run included paternal supervision (PATSUPER), SOCDISOR, DELDEF, ATTACHPE, and DELFRNDS.⁴⁸ Subsequently, five separate findings were recorded for the total main effects, total interactive effects, the main effect for each non-familial factor, and the interactive effects between non-familial factors. The results of these ANOVA procedures are shown in Table X. All main effects are reported

⁴⁸The other three ANOVA runs incorporated: (1) time spent between youth and father (TIME), SOCDISOR, DELDEF, ATTACHPE, and DELFRNDS; (2) paternal interest in school (INTSCHOL), SOCDISOR, DELDEF, ATTACHPE, and DELFRNDS; and (3) paternal discipline (PATDISC), SOCDISOR, DELDEF, ATTACHPE, and DELFRNDS.

whereas only those interactions significant beyond the .05 level are included. As noted above, when several findings were received for a certain factor or combination of factors, the range of values is reported as is the ANOVA run in which the high and low values were recorded.

TABLE X

MAIN AND INTERACTIVE EFFECTS OF FACTORS ON DELINQUENCY INVOLVEMENT

	F	SIGNIFICANCE OF F
<u>MAIN EFFECTS*</u>	14.378 ^b - 16.738 ^a	.000(all ANOVA runs)
PATATT	4.265	.014
PATSUPER	2.439	.088
TIME	2.847	.059
INTSCHOL	2.981	.051
PATDISC	.550	.577
SOCDISOR	4.566 ^b - 7.413 ^a	.011 - .001
DELDEF	8.160 ^a - 12.575 ^e	.000(all ANOVA runs)
ATTACHPE	1.823 ^d - 3.728 ^e	.162 - .024
DELFRNDS	27.729 ^a - 30.080 ^e	.000(all ANOVA runs)
<u>TWO-WAY INTERACTIONS⁺</u>	.842 ^a - 1.285 ^c	.745 - .113
SOCDISOR - DELFRNDS	1.764 ^d - 2.467 ^c	.134 - .043
PATDISC - SOCDISOR	2.438	.046
PATDISC - DELFRNDS	2.397	.049

* All main effects are reported

⁺ Only those 2-way interactions significant at beyond the .05 level are reported.

^a Recorded in ANOVA run: PATATT, SOCDISOR, DELDEF, ATTACHPE, DELFRNDS

^b Recorded in ANOVA run: PATSUPER, SOCDISOR, DELDEF, ATTACHPE, DELFRNDS

^c Recorded in ANOVA run: TIME, SOCDISOR, DELDEF, ATTACHPE, DELFRNDS

^d Recorded in ANOVA run: INTSCHOL, SOCDISOR, DELDEF, ATTACHPE, DELFRNDS

^e Recorded in ANOVA run: PATDISC, SOCDISOR, DELDEF, ATTACHPE, DELFRNDS

The main effects report whether the individual factors and the factors as a whole have statistically significant independent effects

on delinquent behavior. The significance test for each factor is based upon an F ratio in which all other effects (both main and interactive) are controlled for.⁴⁹ The data indicate that the joint main effects and the individual main effects for attachment to father (PATATT), social disorganization (SOCDISOR), delinquent definitions (DELDEF), attachment to peers (ATTACHPE), and delinquent friends (DELFRNDS) are significant. However, because several interactive effects are also significant, the main effects must be considered in terms of such interaction. It makes little sense to merely consider a factor's independent (main) effect when there is evidence that it interacts with another factor or other factors in affecting delinquency (Nie et al., 1975:403, 409).

The only family factor to have a significant main effect on delinquency involvement was attachment to father (PATATT). In addition, paternal attachment failed to interact with any non-familial factors. Consistent with these findings is the fact that the ANOVA run incorporating paternal attachment yielded the highest F score for joint main effects and the lowest F score for joint interactive effects. Thus, it can be concluded that paternal attachment has a direct effect on delinquency independent of the non-familial factors. This finding is consistent with those of Hirschi (1969), Jensen (1972), and Hepburn (1976), although Johnson (1979), on the other hand, found

⁴⁹ A classic regression ANOVA approach was used (Nie et al., 1975:407, 414). Nie et al. (1975:405-408, 413-416) describes three different approaches for controlling the order in which the factors are tested and for determining which variables are held constant. The regression approach was selected because it controls for interactive effects when calculating the significance of each factor's main effects. All three approaches calculate interactive effects in the same manner.

virtually no direct effect from parental attachment to delinquent behavior. Conger's (1976) findings indicated that attachment to parents interacted with two measures of parental reinforcement behaviors: positive communicational responses from parents, and extent of parental punishment. The present analysis did not consider interaction among familial variables, thus, Conger's findings cannot be directly compared to those of this study.

Father's interest in school (INTSCHOL) had an independent effect on delinquency involvement that nearly satisfied the significance level ($p = .051$). Furthermore, paternal interest in school was not involved in any significant interactive effects. Thus, these findings very tentatively suggest that if paternal interest in school has an effect on delinquency, it is most likely to be independent, rather than interactive. Paternal supervision (PATSUPER) and time spent between father and son (TIME) had nonsignificant main and interactive effects. The finding that paternal supervision failed to have an independent effect on delinquency differs from Jensen's (1972) report. Hirschi (1969:88) claimed that time spent between parent and adolescent is unimportant in that delinquent acts take little actual time to commit. The present finding that time together fails to have a significant effect on delinquency is consistent with his contention. Paternal discipline (PATDISC) was found to interact with two non-familial factors. Since its main effect was nonsignificant, it can be concluded that paternal discipline influences delinquency involvement primarily through interaction with other factors.

All non-familial factors had significant main effects. While social disorganization and delinquent friends were also involved in

interactive effects, their main effects persisted after controlling for variable interaction, which indicates that these factors have a significant independent impact on delinquency regardless of their interactive effects. Thus, these factors have both a significant main and significant interactive effect. Delinquent friends had very large F values for main effect, which suggests a substantial independent effect on delinquency. This finding is consistent with Hirschi's (1969) and Jensen's (1972) results which showed delinquent friends to have an independent effect on delinquency. Matsueda (1982), however, found that all but a trivial portion of this effect was mediated by delinquent definitions.

The ANOVA procedures utilized in this study were restricted to two-way interactions, that is, interaction between two factors because the interpretation of higher-order interactive effects becomes quite difficult (Nie et al., 1975:413)⁵⁰ While the joint interactive effect was nonsignificant, three of the two-way interactions were significant beyond the .05 level: social disorganization - delinquent friends (SOCDISOR - DELFRNDS), paternal discipline - social disorganization (PATDISC - SOCDISOR), and paternal discipline - delinquent friends (PATDISC - DELFRNDS).

When a finding of interaction is significant, it can be concluded that the effect of a factor on delinquency varies depending on the level of another factor and vice versa (Nie et al., 1975:403).

Further, findings of interaction indicate that a significant amount of

⁵⁰ Additionally, with five factors, the calculation of higher-order interactions becomes exceedingly complex, requiring an excessive amount of core computer memory (a commodity not readily available at most university computer centers).

a factor's effect is interactive with other factor(s). Regarding parental discipline, its only significant effect on delinquency is through interactive effects.

Analysis of variance precisely identifies significant independent and interactive effects; however, it fails to provide more detailed information on how factors interact. Accordingly, tabular analysis was employed in order to examine the interactive effects for each of the two-way interactions identified through ANOVA. Three-variable contingency tables were constructed in which the relationship between delinquency and a variable was assessed over categories of a third variable. Several measures of association were used to summarize the relationship within each category of the control variable (the third variable). Interaction is observed when the relationship of a variable to delinquency varies over categories of a third variable. The measures of association used included conditional gamma, zero-order gamma, partial gamma and Kendall's tau b, while Chi-square was employed as the significance test for association. Gamma was used because it has a direct proportional reduction in error. Conditional gamma reports the measure of association between two variables within separate categories or conditions of a third variable. The zero-order gamma simply measures the relationship between two variables without controlling for any other variable(s). Then, the first-order partial gamma measures the relationship while controlling for the third variable. However, since gamma fails to correct for either ties or table size, tau b was also used (Nie et al., 1975:227-229).

The least significant interactive effect revealed by the ANOVA runs was between paternal discipline and delinquent friends. Table XI

summarizes the relationship between the strictness of paternal discipline and delinquency, controlling for the number of delinquent friends. Interaction between discipline and delinquent friends can be observed in that the relationship between discipline and delinquency substantially varies over categories of delinquent friends. In fact, paternal discipline is related to delinquency only when there are no delinquent friends ($\gamma = .18$). Of those boys with low levels of paternal discipline and no delinquent friends, 21.7 percent were delinquent, compared with 34.0 percent of the boys with high levels of discipline and no delinquent friends. Apparently, having delinquent friends effectively neutralizes any impact of discipline on delinquency ($\gamma = .02$ and $.09$).

TABLE XI
RELATIONSHIP OF SELF-REPORTED DELINQUENCY TO PATERNAL
DISCIPLINE AND NUMBER OF DELINQUENT FRIENDS

DISCIPLINE		NUMBER OF DELINQUENT FRIENDS								
		0			1-2			3 or more		
		Low	Mod.	High	Low	Mod.	High	Low	Mod.	High
DELIN.	0	78.3	68.8	66.01	44.8	57.7	41.91	34.2	33.3	25.8
ACTS	1	15.8	19.0	27.4	33.3	28.8	30.6	28.9	24.2	30.9
(%)	2+	5.9	12.1	6.6	21.8	13.5	27.4	36.8	42.4	43.3
	N	203	231	106	87	111	62	76	99	97
Conditional										
	Gamma		.18			.02			.09	
	Tau B		.10			.01			.06	
	Significance		.015			.128			.627	
					Zero-order Gamma:		.16			
					Partial Gamma:		.13			

Interaction between paternal discipline and number of delinquent friends can also be observed when comparing the relationship between delinquency and number of delinquent friends while controlling for paternal discipline. Table XII reveals that delinquency and having

delinquent friends are more strongly related when paternal discipline is low ($\gamma = .59$). Additionally, the relationship is suppressed when discipline is moderate. The zero-order gamma of .52 is somewhat larger than the conditional gamma of .43 recorded in the context of moderate paternal discipline. Thus, moderate levels of paternal discipline can reduce the impact of delinquent friends on delinquency.

TABLE XII

RELATIONSHIP OF SELF-REPORTED DELINQUENCY TO NUMBER OF
DELINQUENT FRIENDS AND PATERNAL DISCIPLINE

DELFRNDS	PATERNAL DISCIPLINE									
	Low			Moderate			High			
	0	1-2	3+	0	1-2	3+	0	1-2	3+	
DELIN.	0	78.3	44.8	34.2	68.8	57.7	33.3	66.0	41.9	25.8
ACTS	1	15.8	33.3	28.9	19.0	28.8	24.2	27.4	30.6	30.9
(%)	2+	5.9	21.8	36.8	12.1	13.5	42.4	6.6	27.4	43.3
N	203	87	76	231	111	99	106	62	97	
Conditional										
Gamma		.59			.43			.54		
Tau B		.38			.27			.37		
Significance		.000			.000			.000		
					Zero-order Gamma:	.52				
					Partial Gamma:	.50				

Paternal discipline was also found to interact with community social disorganization. The relationship between paternal discipline and delinquency is effected quite differently by social disorganization than by delinquent friends; the latter two have both been used as indicators of criminogenic influences (compare Table XI and Table XIII). The effect of paternal discipline is strongest in situations of medium to high social disorganization (Table XIII, $\gamma = .25$ and $.21$), whereas in the context of delinquent friends, paternal discipline has an insignificant effect on delinquency (Table XI, $\gamma = .02$ and $.09$). Equally noteworthy is the finding that paternal

discipline has an insignificant association with delinquency in harmonious social contexts ($\gamma = .02$). To summarize, the strictness of paternal discipline may make the greatest difference in delinquency involvement among boys in social environments characterized by disorganization. These findings are summarized in Table XIII.

TABLE XIII

RELATIONSHIP OF SELF-REPORTED DELINQUENCY TO PATERNAL
DISCIPLINE AND COMMUNITY SOCIAL DISORGANIZATION

DISCIPLINE		COMMUNITY SOCIAL DISORGANIZATION								
		Low			Medium			High		
		Low	Mod.	High	Low	Mod.	High	Low	Mod.	High
DELIN.	0	65.2	67.1	59.3	68.8	59.7	47.1	58.5	48.9	39.5
ACTS	1	18.9	21.7	30.2	22.0	22.0	30.6	20.3	23.7	26.9
(%)	2+	15.9	11.2	10.5	9.3	18.2	22.3	21.2	27.3	33.6
	N	132	161	86	205	236	121	118	139	119
Conditional										
Gamma		.02			.25			.21		
Tau B		.01			.15			.13		
Significance		.260			.001			.067		
		Zero-order Gamma: .19								
		Partial Gamma: .19								

Table XIV indicates that community social disorganization influences delinquency most heavily in situations of moderate and high paternal discipline ($\gamma = .23$ and $.27$). It is also apparent that low paternal discipline greatly reduces the relationship between social disorganization and delinquency. The related conditional gamma of $.08$ is substantially reduced from a conditional gamma of $.21$. Thus, the community context makes little difference when paternal discipline is low.

Variable interaction is also observable between two non-familial factors: community social disorganization and number of delinquent friends. Although the significance of this interactive effect varies

TABLE XIV

RELATIONSHIP OF SELF-REPORTED DELINQUENCY TO COMMUNITY SOCIAL
DISORGANIZATION AND PATERNAL DISCIPLINE

SOCDISOR		<u>PATERNAL DISCIPLINE</u>								
		Low			Moderate			High		
		Low	Med.	High	Low	Med.	High	Low	Med.	High
DELIN.	0	65.2	68.8	58.5	67.1	59.7	48.9	59.3	47.1	39.5
ACTS	1	18.9	22.0	20.3	21.7	22.0	23.7	30.2	30.6	26.9
(%)	2+	15.9	9.3	21.2	11.2	18.2	27.3	10.5	22.3	33.6
	N	132	205	118	161	236	139	86	121	119
Conditional										
	Gamma		.08			.23			.27	
	Tau B		.05			.14			.18	
	Significance		.052			.005			.003	
					Zero-order Gamma:	.21				
					Partial Gamma:	.19				

TABLE XV

RELATIONSHIP OF SELF-REPORTED DELINQUENCY TO NUMBER OF DELINQUENT
FRIENDS AND COMMUNITY SOCIAL DISORGANIZATION

DELFRNDS		<u>COMMUNITY SOCIAL DISORGANIZATION</u>								
		Low			Med.			High		
		0	1-2	3+	0	1-2	3+	0	1-2	3+
DELIN.	0	78.0	42.7	28.9	71.4	56.6	33.3	65.2	45.8	23.2
ACTS	1	17.3	41.3	28.9	19.8	25.7	31.4	20.3	27.7	22.4
(%)	2+	4.7	16.0	42.2	8.8	17.6	35.2	14.5	26.5	54.4
	N	191	75	83	273	136	105	138	83	125
Conditional										
	Gamma		.65			.45			.54	
	Tau B		.44			.28			.37	
	Significance		.000			.000			.000	
					Zero-Order Gamma:	.55				
					Partial Gamma:	.52				

in different ANOVA runs, it is significant at the .043 level in the ANOVA run incorporating time spent between father and son. TABLE XV indicates that while the relationship between delinquency and number of delinquent friends is significant under all conditions of social disorganization, the relationship is accentuated somewhat under low levels of social disorganization (gamma = .65) and slightly suppressed under medium levels of social disorganization (gamma = .45). This pattern is apparent when comparing the conditional gamma for these two levels of social disorganization with its zero-order gamma (.55).

Table XVI indicates that community social disorganization makes for greater delinquency involvement only when a youth does not have delinquent friends (gamma = .20). Conversely, when an adolescent has one or two delinquent friends, the relationship between social disorganization and delinquency falls to a very low level (gamma = .03). Thus, when there are delinquent friends, social disorganization makes for little difference in delinquency involvement.

TABLE XVI

RELATIONSHIP OF SELF-REPORTED DELINQUENCY TO SOCIAL
DISORGANIZATION AND NUMBER OF DELINQUENT FRIENDS

		<u>NUMBER OF DELINQUENT FRIENDS</u>								
		0			1-2			3+		
SOCDISOR		Low	Med.	High	Low	Med.	High	Low	Med.	High
DELIN.	0	78.0	71.4	65.2	42.7	56.6	45.8	28.9	33.3	23.2
ACTS	1	17.3	19.8	20.3	41.3	25.7	27.7	28.9	31.4	22.4
(%)	2+	4.7	8.8	14.5	16.0	17.6	26.5	42.2	35.2	54.4
	N	191	273	138	75	136	83	83	105	125
Conditional										
Gamma		.20			.03			.15		
Tau B		.11			.02			.10		
Significance		.026			.056			.066		
		Zero-Order Gamma:				.18				
		Partial Gamma:				.16				

One further interactive effect merits some attention even though it failed the significance level requirement of .05. Time spent between father and son and delinquent values had an interactive effect on delinquency significant at the .072 level ($F = 2.160$). The reader should therefore be advised that this particular finding is merely suggestive; however, this interactive effect further illustrates how family factors may interact with other factors in effecting delinquency.

As previously mentioned, Hirschi (1969:88) downplayed the importance of time spent between parent and adolescent, arguing that delinquent acts take little time to commit. Thus, he did not consider the ramifications of time together for an adolescent's belief system. The present data tentatively suggest that time in the father-son relationship may be influential when an adolescent shows strong allegiance to delinquent definitions (Table XVII, $\gamma = .19$). Of those youth scoring high on delinquent definitions, 22.9 percent with high amounts of time with their father committed two or more delinquent acts as compared to 43.0 percent of those who spent little time with their father. Equally interesting is the fact that a low amount of time spent between father and son greatly accentuates the relationship between delinquent definitions and delinquency. Table XVIII clearly reveals that definitions conducive to law violations make for greater differences in delinquency involvement among youth who spend little time with their fathers ($\gamma = .51$).

TABLE XVII

RELATIONSHIP OF SELF-REPORTED DELINQUENCY TO TIME SPENT
BETWEEN FATHER AND SON AND DELINQUENT DEFINITIONS

TIME	<u>DELINQUENT DEFINITIONS</u>								
	Low			Neutral			High		
	High	Med.	Low	High	Med.	Low	High	Med.	Low
DELIN. 0	67.5	65.8	77.3	59.0	60.1	52.6	45.8	46.9	36.3
ACTS 1	21.1	23.5	14.8	28.5	26.4	30.1	31.3	26.5	20.7
(%) 2+	11.4	10.7	7.8	12.5	13.5	17.3	22.9	26.5	43.0
N	114	149	128	144	163	156	96	162	135
Conditional									
Gamma	-.14			.09			.19		
Tau B	-.08			.05			.12		
Significance	.281			.614			.008		
	Zero-Order Gamma: .07								
	Partial Gamma: .07								

TABLE XVIII

RELATIONSHIP OF SELF-REPORTED DELINQUENCY TO DELINQUENT
DEFINITIONS AND TIME SPENT BETWEEN FATHER AND SON

DELDEF	<u>TIME FATHER-SON</u>								
	High			Medium			Low		
	Low	Neut.	High	Low	Neut.	High	Low	Neut.	High
DELIN. 0	67.5	59.0	45.8	65.8	60.1	46.9	77.3	52.6	36.3
ACTS 1	21.1	28.5	31.3	23.5	26.4	26.5	14.8	30.1	20.7
(%) 2+	11.4	12.5	22.9	10.7	13.5	26.5	7.8	17.3	43.0
N	114	144	96	149	163	162	128	156	135
Conditional									
Gamma	.25			.26			.51		
Tau B	.16			.16			.33		
Significance	.017			.001			.000		
	Zero-Order Gamma: .35								
	Partial Gamma: .34								

Summary

In this study, all non-familial factors were found to have significant independent effects on delinquency involvement. However, a number of these factors also had interactive effects. Having delinquent friends was revealed to have by far the largest independent effect on delinquency, but it also interacted with paternal discipline and social disorganization. The number of delinquent friends made for somewhat less difference in delinquency involvement when paternal discipline was moderate and under medium levels of social disorganization. Additionally, the relationship between delinquent friends and delinquency involvement was accentuated under low levels of social disorganization. Delinquent definitions also had a significant independent effect on delinquency however, possessing delinquent definitions was found to make for greater delinquency involvement among youth who spent little time with their father. Social disorganization had a significant independent effect on delinquency, however, it also interacted with paternal discipline and number of delinquent friends. The relationship between social disorganization and delinquency was substantially reduced when paternal discipline was low. Furthermore, the level of social disorganization influenced delinquency involvement only when adolescents had no delinquent friends.

Attachment to father was the only family factor found to have a significant independent effect on delinquency. Paternal discipline, however, displayed significant interactive effects with social disorganization and number of delinquent friends. Since the independent effect of discipline was nonsignificant, it can be concluded that its

influence on delinquency is primarily through interaction with other factors. Paternal discipline was significantly related to delinquency under medium levels of social disorganization and when adolescents had no delinquent friends.

If interactive effects had been ignored, paternal discipline would have been found to have little or no influence on delinquency. However, by exploring interactive effects, we have seen that paternal discipline influenced the effect that number of delinquent friends and community social disorganization had on delinquency and was significantly related to delinquency under certain conditions of these same two non-familial factors.

The findings of the present study are incorporated into a causal model considering variable interaction (Figure 6). Significant independent effects are depicted as are interactive and conditional effects. The concluding chapter discusses the general implications of interactive effects for causal explanations of delinquent behavior, especially in regard to the family's etiological role.

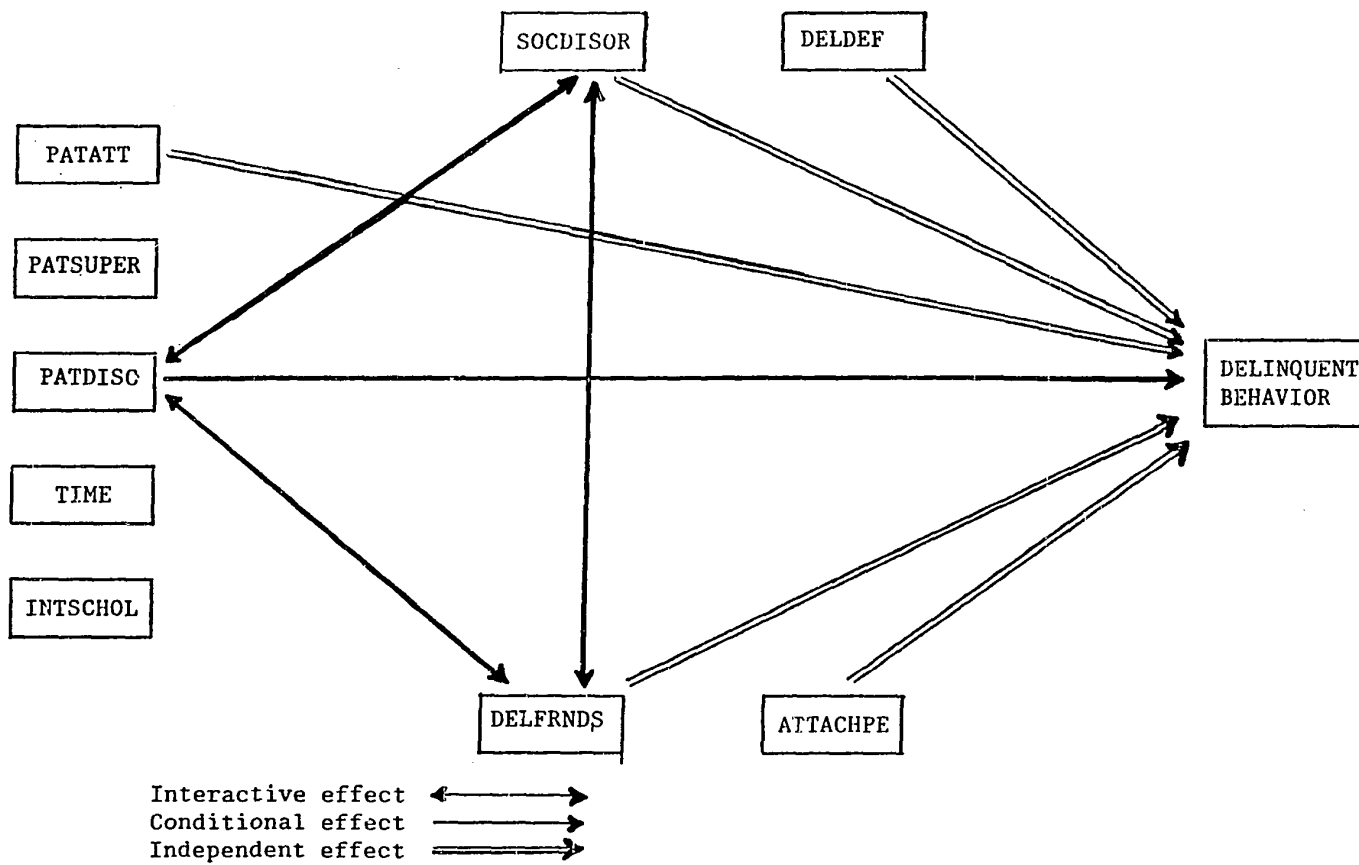


Figure 6. Causal model of research findings.

CHAPTER VI

VARIABLE INTERACTION AND CAUSAL EXPLANATIONS: THE FAMILY'S ROLE REASSESSED

The implications of the findings of this study are somewhat speculative at this point because a limited array of family and non-familial factors were considered. Then, too, findings of variable interaction were not overly frequent. Only three significant interactive effects were identified by the research procedures, and while two of these involved a familial factor, in both cases it was the same factor: paternal discipline. Nevertheless, these findings of interactive effects have at least two important implications for understanding and conceptualizing the causal role of the family in delinquent behavior:

(1) Paternal discipline, and perhaps other yet unanalyzed family factors, influences delinquency predominately through interactive effects with non-familial factors. Causal explanation and research dealing solely with direct, independent relationships may seriously minimize and oversimplify the causal role of certain family factors (see also Hirschi and Selvin, 1966:267; Stanfield, 1966:417).

(2) When family factors have an interactive effect, it is twofold. First, certain family factors have significant effects on delinquent behavior under specific conditions of non-familial factors. For instance, paternal discipline was found to make for a significant difference in delinquency involvement when social disorganization was at a moderate level. Second, the effect of some non-familial factors is similarly influenced by family factors such that their effect is either accentuated or suppressed under specific levels of certain family factors.

Explaining The Family's Interactive Effect

Interpreting variable interaction within the framework of existing theories is problematic. Existing theoretical perspectives fail to give much credence to interactive effects, instead, as discussed in Chapter II, sociological theories and research studies of delinquent behavior have increasingly stressed the relative importance and position of variables within causal structures and models. Findings of interaction draw into question an inherent assumption of such causal sequences: that each variable has causal efficacy within itself, independent of other causal variables (Hirschi and Selvin, 1966:267). Nevertheless, general notions of variable interaction involving family factors are observable within existing theory, although often indirectly.

Various versions of control theory imply that the effect of non-familial factors on delinquent behavior is influenced by the level of family factors. Hirschi's (1969:16) social control theory most basically contends that an individual is free to commit delinquent acts when his or her bond to society is weak or broken. He (1969:157) argues that those individuals whose bond to society is weak are more likely to be affected by criminogenic influences, thus the weaker the bond, the greater the likelihood that criminogenic influences will lead to delinquency involvement. Since family factors are hypothesized as important in generating an adolescent's bond to society, especially the element of attachment, they influence how receptive a youth is to criminogenic influences. This line of argument implies the following interactive relationship: the association between criminogenic influences and delinquency involvement depends

on the level of different family factors.

Briar and Piliavin's (1965) version of social control theory contains two basic elements: situational inducements and commitments to conformity. They claim that most adolescents are exposed to episodic pressures of short duration which affect their values and behaviors. Additionally, they vary in their personal commitment to conformity. Briar and Piliavin maintain that a juvenile's level of commitment is largely based upon his or her consideration of status objectives, self image, and valued relationships (Briar and Piliavin, 1966:39). Of the conditions influencing the development of commitment, the relationship of the youth to his or her parents is among the most important (Briar and Piliavin, 1966:41). Elements of this relationship include parental affection, discipline, attention, and conformity to parental authority by the youth. Briar and Piliavin contend that given situational inducements to deviate, youths with strong commitments are less likely to engage in delinquency than are those with minimal commitments. Thus, the parent-child relationship, as a primary determinant of commitment, influences the effect that situational pressures have on an adolescent and the likelihood of involvement in delinquent behavior--a process which assumes variable interaction.

Reckless's (1961, 1973) containment theory is directed at answering the question "How is it possible for a youth living in a high crime area to resist engaging in delinquent activity?" In other words, what factors determine the extent to which criminogenic areas influence adolescents? He argued that various external pressures and pulls provide criminogenic influences. However, an adolescent's

inner and outer containment act as a defense against these influences and "insulate" him or her from such pressures. Reckless contended that various family conditions are important in generating inner containments while also providing outer containments. Therefore, the family helps regulate the influence that external forces have on a youth. When inadequate family patterns result in deficient inner and outer containment, external pressures and pulls are most likely to push an adolescent toward delinquent activity.

Thus, control theories typically hold that family factors are influential in determining an adolescent's commitment to the social order. When these experiences fail to encourage commitment, exposure to criminogenic influences is more likely to lead to delinquent behavior. Conversely, if family factors strengthen a youth's commitment to social standards, then criminogenic influences have little effect. The data of the present study provide mixed evidence for such notions of interaction.

Measures of paternal discipline provided a general indicator of the extensiveness of discipline. Control theory maintains that if discipline is overly restrictive, absent, or unfair, it diminishes paternal attachment and control (both inner and outer), and makes delinquency involvement possible (Nye, 1958:79).

When the strictness of paternal discipline is either high or low, criminogenic influences should be more strongly related to delinquency than if discipline is moderate. Criminogenic influences can be operationalized in terms of delinquent friends and community social disorganization. Additionally, delinquent values are also considered to result from contact with criminogenic influences. The previously

discussed data of Table XII (page 99) are consistent with control theory in that the relationship between delinquency and delinquent friends is strongest when paternal discipline is low and high ($\gamma = .59$ and $.54$). However, even though the relationship is reduced when discipline is moderate ($\gamma = .43$), it still is significant. Table XIV (page 101) reports contrary findings for paternal discipline and community social disorganization. The relationship between social disorganization and delinquency is highest when paternal discipline is moderate to high ($\gamma = .23$ and $.27$), but is reduced to an insignificant level when discipline is low ($\gamma = .08$). In this case, when discipline is low, the level of social disorganization makes little difference in delinquency involvement.

Attachment to parents has also been considered in terms of parental supervision (Hirschi, 1969; Jensen, 1972; Matsueda, 1982). While excessive supervision may diminish attachment, parental supervision has primarily been conceptualized in terms of the parents' psychological presence rather than their physical monitoring of children (Hirschi, 1969:88-89). Therefore, only low levels of supervision should make an adolescent vulnerable to criminogenic influences. The data in this study are only partially supportive of such a proposition. Table XIX (page 113) reveals that when paternal supervision is low, the relationship between social disorganization and delinquency is weak and insignificant ($\gamma = .19$). However, when supervision is high, social disorganization is significantly related to delinquency ($\gamma = .24$). In a similar fashion, Table XX (page 113) shows that when supervision is high, delinquent values are moderately related to delinquency ($\gamma = .33$). However, when paternal supervision is

TABLE XIX

RELATIONSHIP OF SELF-REPORTED DELINQUENCY TO COMMUNITY
SOCIAL DISORGANIZATION AND PATERNAL SUPERVISION

SOCDISOR	PATERNAL SUPERVISION									
	High			Moderate			Low			
	Low	Med.	High	Low	Med.	High	Low	Med.	High	
DELIN.	0	69.3	68.9	50.0	63.1	56.6	58.0	56.4	49.4	40.7
ACTS	1	23.4	20.8	26.9	20.0	28.7	22.7	22.8	24.4	24.8
(%)	2+	7.3	10.2	23.1	16.9	14.8	19.3	20.8	26.2	34.5
N	218	293	160	65	122	88	101	168	145	
Conditional										
Gamma		.24			.05			.19		
Tau B		.14			.03			.12		
Significance		.000			.652			.109		
					Zero-Order Gamma:	.21				
					Partial Gamma:	.20				

TABLE XX

RELATIONSHIP OF SELF-REPORTED DELINQUENCY TO DELINQUENT
DEFINITIONS AND PATERNAL SUPERVISION

DEL/DEF	PATERNAL SUPERVISION									
	High			Moderate			Low			
	Low	Neut.	High	Low	Neut.	High	Low	Neut.	High	
DELIN.	0	73.4	64.6	47.1	63.6	59.3	48.8	68.6	47.1	37.3
ACTS	1	18.5	26.7	27.5	22.1	29.7	26.8	22.1	28.3	23.7
(%)	2+	8.2	8.8	25.5	14.3	11.0	24.4	9.3	24.6	39.1
N	233	240	153	77	91	82	86	138	169	
Conditional										
Gamma		.33			.19			.37		
Tau B		.20			.12			.24		
Significance		.000			.108			.000		
					Zero-Order Gamma:	.35				
					Partial Gamma:	.32				

low, the relationship between delinquency and delinquent values is significant ($\gamma = .37$), as predicted by control theory. Thus, paternal supervision appears to operate similarly to discipline in that high levels of supervision may alienate an adolescent and make him or her less attached to his or her parents and therefore more vulnerable to criminogenic influences.

While Hirschi (1969:88) minimized the importance of time spent between parents and adolescents, other control theorists have postulated that time is an important factor for parental attachment (Nye, 1958:102-103).⁵¹ Based upon the idea that time spent together facilitates attachment and both indirect and direct control (see Nye, 1958:6-7), little time together should increase the extent to which criminogenic influences lead to delinquency involvement. Table XVIII (page 104) supports this contention in that the relationship between delinquency and delinquent values is much stronger when time spent between father and son is low ($\gamma = .51$) than when time together is high or medium ($\gamma = .25$ and $.26$).

Other sociological theories have stressed the preeminence of the social environment outside the family in delinquency causation. Such theories ostensibly contend that the social environment determines the extent to which family factors are likely to affect delinquency involvement. The theoretical work of Sutherland and Shaw and McKay most clearly depicts this view of variable interaction.

As discussed previously, Sutherland's theory of differential association maintains that family conditions are only influential

⁵¹Nye's (1958) consideration of time spent between parent(s) and child was in terms of family recreation.

when there are delinquent patterns available to copy (Sutherland and Cressey, 1966:227). Thus, the availability of delinquent patterns determines the degree to which family factors are influential: "If the family is in a community in which there is [sic] no patterns of theft, the children do not steal, no matter how much neglect or how unhappy they may be at home" (Sutherland and Cressey, 1966:227). In other words, when there are no delinquent patterns in the community, family conditions make little difference. On the other hand, if delinquent patterns are available, family conditions help determine whether the child will come into contact with delinquent influences. This is a rather explicit interactive effect in the direction of delinquent patterns affecting the level of influence of family conditions on delinquency.

Shaw and McKay also placed emphasis on the community environment as a crucial factor in delinquency causation. Their approach, however, focused on the ecological conditions and patterns of delinquency within the city, with less explicit attention to the social-psychological processes by which delinquency is learned. They contended that community environments characterized by social disorganization influence family relationships and conditions and subsequently diminish parental control over adolescents. Thus, the greater the community social disorganization, the greater family circumstances are affected and the more likely they are to be related to delinquency involvement. It can be concluded that family conditions make for delinquency involvement under situations of social disorganization.

The present study provides few supportive findings for the interactive effects which are hypothesized in the theories of Sutherland

and Shaw and McKay. Delinquent patterns were operationalized as delinquent friends and community social disorganization. Differential association theory maintains that the family factors are influential only when there are delinquent patterns available to follow, while Shaw and McKay contended that family influence increases as social disorganization increases. The data of Table XIII (page 100) show that paternal discipline makes a significant difference in delinquency when social disorganization is medium ($\gamma = .25$), but that is insignificantly related to delinquency when discipline is high and low ($\gamma = .21$ and $.02$). Such findings fail to provide substantial evidence for either perspective. The evidence is even less supportive in Table XXI (page 117) where paternal supervision is significantly related to delinquency when social disorganization is low and medium ($\gamma = .23$ and $.29$), but insignificantly related when social disorganization is high ($\gamma = .14$).

When number of delinquent friends is used as an indicator of the availability of delinquent patterns, the findings are opposite of those predicted by differential association theory. Having delinquent friends effectively neutralizes any impact that paternal discipline has on delinquency (Table XI, page 98, $\gamma = .02$ and $.09$). On the contrary, paternal discipline makes for greater difference in delinquency when the adolescent has no delinquent friends ($\gamma = .18$).

In a more precise sense, differential association theory contends that family factors have an effect on delinquent behavior only when an adolescent has acquired delinquent definitions in interaction with others (Sutherland and Cressey, 1966: 81, 227-228). Several

TABLE XXI

RELATIONSHIP OF SELF-REPORTED DELINQUENCY TO PATERNAL
SUPERVISION AND COMMUNITY SOCIAL DISORGANIZATION

		<u>COMMUNITY SOCIAL DISORGANIZATION</u>								
		Low			Medium			High		
PATSUPER		Low	Mod.	High	Low	Mod.	High	Low	Mod.	High
DELIN.	0	69.3	63.1	56.4	68.9	56.6	49.9	50.0	58.0	40.7
ACT	1	23.4	20.0	22.8	20.8	28.7	24.4	26.9	22.7	24.8
(%)	2+	7.3	16.9	20.8	10.2	14.8	26.2	23.1	19.3	34.5
	N	218	65	101	293	122	168	160	88	145
Conditional										
Gamma			.23			.29			.14	
Tau B			.13			.18			.09	
Significance			.010			.000			.043	
					Zero-order Gamma: .25					
					Partial Gamma: .24					

TABLE XXII

RELATIONSHIP OF SELF-REPORTED DELINQUENCY TO PATERNAL
SUPERVISION AND DELINQUENT DEFINITIONS

		<u>DELINQUENT DEFINITIONS</u>								
		Low			Neutral			High		
PATSUPER		High	Mod.	Low	High	Mod.	Low	High	Mod.	Low
DELIN.	0	73.4	63.6	68.6	64.6	59.3	47.1	47.1	48.8	37.3
ACTS	1	18.5	22.1	22.1	26.7	29.7	28.3	27.5	26.8	23.7
(%)	2+	8.2	14.3	9.3	8.8	11.0	24.6	25.5	24.4	39.1
	N	233	77	86	240	91	138	153	82	169
Conditional										
Gamma			.12			.27			.17	
Tau B			.06			.16			.11	
Significance			.442			.000			.057	
					Zero-Order Gamma: .24					
					Partial Gamma: .20					

findings of interaction relate to such a proposition. Table XXII (page 117) is somewhat consistent with this perspective in that when delinquent definitions were low, paternal supervision made for little difference in delinquency involvement ($\gamma = .12$). However, paternal supervision is more highly related to delinquency when delinquent definitions are neutral than when they are high ($\gamma = .27$ and $.17$). As a matter of fact, when delinquent definitions are high, the relationship between paternal supervision and delinquency is actually insignificant ($p = .06$). Table XVII (page 104) reports more supportive data. When delinquent definitions are high, the time spent between father and son is more likely to affect delinquency involvement ($\gamma = .19$). When definitions are low or neutral, the relationship between time together and delinquency is insignificant.

CONCLUSION

The analytic techniques of the present study proved quite applicable to investigating interactive effects; however, they are not without limitations. First, the statistical methods incorporated into the research required categorical variables. Such categorization has been criticized as creating artificial and subjective division within the data, this can influence results and interpretations. Second, the generalizability of the research findings are limited by the study's focus on the nonblack, male subsample. The selectiveness of this database was necessary because the reliability of the black subsample has been questioned and because previous research has found the etiology of male and female delinquency to be quite different. Third, while the findings of ANOVA have causal

implications, ANOVA is not a predictive model and therefore cannot directly indicate causation. It should be remembered, however, that one of the goals of investigating interactive effects is to provide a more complete and precise causal picture. Finally, the ANOVA model can also be criticized in that the way the statistic is structured and calculated severely restricts the number of factors which can be considered at one time. The number of factors, number of categories for each factor, and inclusion of higher-order interactions all make the calculation and interpretation of more complex ANOVA models exceedingly complicated.⁵²

Despite these limitation, the present research clearly revealed that family factors influence delinquency involvement in different ways. The data indicate that paternal attachment had a significant independent effect on delinquency while paternal discipline was found to interact with two non-familial factors: community social disorganization and delinquent friends. Furthermore, these latter two variables also interacted to influence delinquency involvement. Therefore, the causal role of paternal discipline, delinquent friends, and community social disorganization cannot be adequately understood without considering their interactive effects.

These findings demonstrate that causal explanation and research dealing solely with direct, independent effects may minimize and oversimplify the causal role of certain family factors. At least a portion

⁵² The SPSS version of ANOVA (Nie et al., 1975) is limited to five factors. Additionally, the number of categories for each factor and higher-order interactions can greatly influence the number and complexity of calculations necessary for an ANOVA model. This, in turn, is limited by the amount of core computer space available to the ANOVA procedures.

of the family's influence on delinquency involvement is through interaction with non-familial variables. Thus, etiological theory and research could likely benefit from more extensive consideration of interactive effects.

The general notions of variable interaction which are implied by existing theories were not supported by the data of the present study. Moreover, different theories provide conflicting interpretations of how familial factors interact with other factors. Social control theories, by stressing the importance of family relationships to an adolescent's commitment to society, contend that the level of these factors determines whether or not criminogenic influences lead to delinquent behavior. When family factors encourage commitment, exposure to criminogenic influences makes little difference in delinquency involvement. On the other hand, when family factors fail to facilitate commitment, exposure to criminogenic influences is more likely to lead to delinquency. This view of interaction was not supported by the data. Additionally, this argument only considers an interactive effect from family factors to criminogenic influences. Meanwhile, theories which emphasize the social, cultural, and ecological environment claim that the environmental context determines whether family factors have an effect on delinquency involvement. When the social environment provides delinquent patterns and encourages delinquency involvement, family conditions are then most likely to make a difference in delinquent activity, whereas family factors have little influence on delinquency involvement when the social environment does not provide delinquent patterns. Again, this particular view of interaction was not supported by the data. Furthermore, this

argument takes into consideration only interactive effects of the social environment on family factors. Thus, interpreting variable interaction within the framework of existing theories is problematic and affords an inaccurate and incomplete view of interactive effects.

The failure of existing theories to actively consider interactive effects is due, at least in part, to their conceptual and empirical emphasis on the independent effects, relative importance, and ordering of variables within a causal model. Indeed, the notions of interaction which can be derived from current theories are for the most part used to argue that a certain variable is conditionally related to delinquency or that its effect is mediated by another variable and thereby to provide support for a particular causal structure. The discontinuity between this approach to causal explanation and a consideration of interactive effects has already been noted; the central point being that interactive effects call into question whether variables have causal efficacy within themselves, entirely independent of other variables. The tendency of current research methods to focus on the causal ordering and relative importance of variables has also been described. Accordingly, the observations of Blalock (1965) and Rosenberg (1968), made almost twenty years ago, are still relevant to delinquency theory and research.

Whenever one can develop a rationale for predicting interaction, one should make a conscious effort to construct and test theories that explicitly take advantage of interactive effects (Blalock, 1965:374).

While the descriptive value of conditional relationships [interactive effects] is generally recognized in social research, less attention seems to have been paid to their analytic, interpretative, or theoretical potentialities (Rosenberg, 1968:107).

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APPENDIX

QUESTIONNAIRE ITEMS USED TO MEASURE VARIABLES

This Appendix identifies the questionnaire items and scoring techniques used to derive the variable indexes. This information is meant to supplement the descriptions of the measures in the text by offering a more complete account of measurement methods. Index scores for each variable are sums of the scores for responses to the composite items. Questionnaire items are identified by their record and individual question numbers (record number/question number).¹

I. Delinquent Behavior

- 2/67. Have you ever taken little things (worth less than \$2) that did not belong to you?
- 2/68. Have you ever taken things of some value (between \$2 and \$50) that did not belong to you?
- 2/69. Have you ever taken things of large value (worth over \$50) that did not belong to you?
- 2/70. Have you ever taken a car for a ride without the owner's permission?
- 2/71. Have you ever banged up something that did not belong to you on purpose?
- 2/72. Not counting fights you may have had with a brother or sister, have you ever beaten up on anyone or hurt anyone on purpose?

Response categories and scorings for all six questionnaire items were identical:

- 0 (A) No, never.
- 0 (B) More than a year ago.

¹Fourteen records were recorded for each respondent.

- 1 (C) During the last year.
1 (D) During the last year and more than a year ago.

II. Attachment to Father (PATATT)

- 8/11. Does your father seem to understand you?
1 (A) Usually
2 (B) Sometimes
3 (C) Never
- 8/13. When you don't know why your father makes a rule, will he explain the reasons?
1 (A) Usually
2 (B) Sometimes
3 (C) Never
- 8/17. When you come across things you don't understand, does your father help you with them?
1 (A) Usually
2 (B) Sometimes
3 (C) Never
- 8/24. Do you share your thought and feelings with your father?
1 (A) Usually
2 (B) Sometimes
3 (C) Never
- 8/25. Have you ever felt unwanted by your father?
3 (A) Often
2 (B) Sometimes
1 (C) Never
- 6/40. Would you like to be the kind of person your father is?
1 (A) In every way
2 (B) In most ways
3 (C) In some ways
4 (D) In just a few ways
5 (E) Not at all
- 6/42. Would your father stick by you if you got into really bad trouble?
1 (A) Certainly
2 (B) Probably
3 (C) Maybe
4 (D) I doubt it
5 (E) Don't know

III. Father's interest in school (INTSCHOL)

- 8/18. Does your father ever ask about what you are doing in school?
1 (A) Often

- 2 (B) Sometimes
3 (C) Never

8/19. Does your father get after you to do well in your school-work?

- 1 (A) Often
2 (B) Sometimes
3 (C) Never

IV. Paternal Supervision (PATSUPER)

8/15. Does your father know where you are when you are away from home?

- 1 (A) Usually
2 (B) Sometimes
3 (C) Never

8/16. Does your father know who you are with when you are away from home?

- 1 (A) Usually
2 (B) Sometimes
3 (C) Never

V. Time spent between father and son (TIME)

8/20. How often do you work in the garden with your father?

- 1 (A) Often
2 (B) Sometimes
3 (C) Never

8/21. How often do you make household repairs with your father?

- 1 (A) Often
2 (B) Sometimes
3 (C) Never

VI. Paternal Discipline (PATDISC)

8/26. Does your father ever punish you by slapping or hitting you?

8/27. Does your father ever punish you by not letting you do things that you want to do?

8/28. Does your father ever punish you by nagging or scolding you?

8/29. Does your father ever punish you by telling you that you are hurting his feelings?

8/30. Does your father ever punish you by calling you bad names?

All discipline questionnaire items had the same response categories and scorings.

3 (A) Often
2 (B) Sometimes
1 (C) Never

VII. Community Social Disorganization (SOCDISOR)

4/49. Young people in my neighborhood are always getting into trouble. (YOUNGTRO)

5 (A) Strongly agree
4 (B) Agree
3 (C) Undecided
2 (D) Disagree
1 (E) Strongly disagree

4/51. Many men in the neighborhood do not have work. (MUNEMPLO)

5 (A) Strongly agree
4 (B) Agree
3 (C) Undecided
2 (D) Disagree
1 (E) Strongly disagree

4/52. A lot of people moving in are running down the neighborhood. (MOVNIN)

5 (A) Strongly agree
4 (B) Agree
3 (C) Undecided
2 (D) Disagree
1 (E) Strongly disagree

VIII. Delinquent Friends (DELFRNDS)

2/66. Have any of your close friends ever been picked up by the police?

1 (A) No
2 (B) One friend has
2 (C) Two friends have
3 (D) Three friends have
3 (E) Four or more friends have
0 (F) Don't know

IX. Attachment to Peers (ATTACHPE)

3/19. Would you like to be the kind of person your best friends are? (BELIKFR)

- 4 (A) In most ways
3 (B) In a few ways
2 (C) Not at all
1 (D) I have no best friends

3/20. Do you respect your best friend's opinions about the important things in life? (RESPFR)

- 4 (A) Completely
3 (B) Pretty much
2 (C) A little
1 (D) Not at all
1 (E) I have no best friends

X. Delinquent Definitions (DELDEF)

3/16. It is alright to get around the law if you can get away with it. (OKLAW)

- 5 (A) Strongly agree
4 (B) Agree
3 (C) Undecided
2 (D) Disagree
1 (E) Strongly disagree

3/17. Most criminals really shouldn't be blamed for things they have done. (CRIMBLM)

- 5 (A) Strongly agree
4 (B) Agree
3 (C) Undecided
2 (D) Disagree
1 (E) Strongly disagree

7/79. Suckers deserve to be taken advantage of. (SUCKERS)

- 5 (A) Strongly agree
4 (B) Agree
3 (C) Undecided
2 (D) Disagree
1 (E) Strongly disagree