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The Social Psychology of Imitated Jaywalking: An Extension of Model Sex and Social Status

Edward W. Gregory Jr.
Eastern Illinois University

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THE SOCIAL PSYCHOLOGY OF IMITATED JAYWALKING: AN EXTENSION OF MODEL SEX AND SOCIAL STATUS

(TITLE)

BY

EDWARD W. GREGORY, JR.

THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF

Master of Arts in Sociology

IN THE GRADUATE SCHOOL, EASTERN ILLINOIS UNIVERSITY
CHARLESTON, ILLINOIS

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AN EXTENSION OF MODEL SEX AND SOCIAL STATUS

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EDWARD W. GREGORY, JR.

M. A. in Sociology, Eastern Illinois University, 1982

ABSTRACT OF A THESIS

Submitted in partial fulfillment of the requirements
for the degree of Master of Arts in Sociology at the Graduate School
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ABSTRACT

A field experiment is designed and conducted to examine what effects the presence of a model who jaywalks (i.e., crosses a street against a "Don't Walk" light) has on inducing jaywalking by unknowing pedestrians who are on the street corner with the model. Two models are used, one male and one female, and their perceived social status is varied by changing their attire from one day to the next to determine what effects sex and social status of models have on initiating jaywalking in other pedestrians.

The review of related literature discusses the findings of a number of studies which indicate that a model can induce significantly more of a particular behavior than would otherwise occur. Other studies reveal that models of high perceived social status typically induce more imitation than models of lower status, while research pertaining to sex of model shows varied findings. Studies pertaining to whether or not sex should be regarded as a status characteristic also produce inconsistent findings, with some authors contending that sex is no longer a salient aspect of determining one's social status, while others assert that sex is still a relevant characteristic to be considered in defining status.

Adaptation-Level Theory and behavioral contagion, which are used as theoretical perspectives in previous jaywalking studies, are critiqued on the basis that they do not adequately take into account social factors beyond those found in the immediate environment which influence an individual's behavior. The Social Behaviorism of George H. Mead, which contends

that impulsive behavior is mediated by internalized definitions of sets of symbols which the individual determines to be relevant to the situation, is presented as being a more suitable perspective for predicting and explaining the behavior observed in field experiments such as this. These internalized definitions are generally shared with the other members of the group(s) to which the individual belongs. On the basis of Mead's theory and the preceding review of literature, it is hypothesized that the presence of a model will induce significantly more jaywalking than would be expected with no model present; that high status models will induce more jaywalking than lower status models; and that males and females will induce similar amounts of imitation (i.e., the effects of social status of the models will generalize across sex). Sex and estimated age of subjects are also recorded to see what differences there are between jaywalking in males and females, and between older and younger subjects.

A research design is presented, which includes the operational definitions for jaywalking, imitation, and status of models. The research setting is also discussed, along with environmental factors which must be controlled for, such as weather and time of day.

Data are gathered and presented for both a no-model, or baseline, condition, and for the four experimental conditions (high and low status male and female models). Variable support is found for the first two hypotheses, so that it cannot be firmly concluded that either the presence of a model induced significantly more jaywalking or that the high status model induced more than the lower status model. Stronger support is found for the contention that males and females induce similar amounts of jaywalking. It is also noted that males tend to jaywalk more than females regardless of whether or not the model is present, and that age of subject did not significantly influence the rate of jaywalking. Suggestions are

made for what directions future research in this field of study should take.

ACKNOWLEDGEMENTS

For me to call this project a solo effort would be at least as much of a crime as jaywalking. Quite a few people had a hand in seeing this thing through to the finish. I would like to extend my sincerest thanks to them, and I hope I don't inadvertently leave anybody out.

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CHAPTER I

INTRODUCTION AND REVIEW OF LITERATURE

Picture yourself on a street corner. You want to cross the street, but you are restrained from doing so by a light which reads, "Don't Walk." So, even though traffic is clear in both directions, you wait. While you are waiting, a stranger joins you at the corner. After looking in both directions and noting that there is, indeed, no danger of being run over, the stranger crosses the street, even though the light still reads, "Don't Walk."

You are therefore confronted with a choice. Do you imitate the stranger's action and cross the street in spite of the sanction imposed by the light, or do you continue to stand on the corner until the light reads "Walk?" And what about the stranger? Were there some characteristics of him/her that influenced your decision? Perhaps you took into account, consciously or otherwise, the way that he/she was dressed, which may have been an indication of his/her social background or status. Maybe you reacted to his/her sex (i.e., if the stranger was male and you imitated his action, would you have done the same if the jaywalker had been female?). Or it could be that you based your choice on a combination of these two, or perhaps other factors.

Several studies have examined jaywalking (Dannick, 1973; Russell, Wilson, and Jenkins, 1976; Lefkowitz, Blake, and Mouton, 1955). In all three projects, the researcher(s) used one or more confederates who would join an unsuspecting pedestrian on a street corner, wait for the traffic

to clear, and then cross the street while the "Don't Walk" light was still on, very much like the situation described above. While Dannick did not manipulate any characteristics of his model, he did have the model jaywalk in some instances and wait for the light to change in others to see if subjects imitated under both conditions. Lefkowitz and his colleagues also had the model both jaywalk and conform, and manipulated the perceived social status (defined by dress) of their model, while Russell and his associates used both black and white male and female models, all of high perceived status, as well as using two models in some instances and one in others. The purpose of all of these field experiments was to see if pedestrians, who were unaware that they were taking part in the study, could be induced to jaywalk (or, in some cases, to not jaywalk) by the model, and, in the cases of Lefkowitz and his colleagues (1955), and Russell and his associates (1976), to see if some characteristics of the model might interact with the action of the subject to induce differential amounts of jaywalking. In this project, I will replicate the basic research designs of these three studies, and I will seek to expand the body of knowledge in this area by using one female and one male model; the perceived social status of the models will be manipulated to determine what effects, if any, sex and social status of models have on initiating jaywalking. I am particularly interested in seeing if there are any interaction effects between these two variables.

Review of Literature

A number of experiments have used models to determine whether or not naive subjects can be induced to imitate the models' actions. In one of the aforementioned jaywalking studies, Dannick (1973) found that his use of a model who jaywalked in some instances and obeyed the light in others

did induce imitation under both conditions. Lefkowitz, Blake, and Mouton (1955) and Russell, Wilson, and Jenkins (1976) also found that models who jaywalk can apparently induce more pedestrians to jaywalk than would otherwise be expected. Barch, Trumbo, and Nangle (1957) had a model drive up to an intersection and give a turn signal so that the car immediately behind was almost certain to see the signal. They found that significantly more drivers turned on their signal after the model turned his on than were observed in the no-model condition; they therefore state that "The results supported the hypothesis that the behavior exhibited by others in a situation involving a legal norm influences a subject's behavior," (Barch, Trumbo, and Nangle, 1957:398), which is consistent with the findings of the jaywalking studies.

Helson, Blake, and Mouton (1958) used a confederate who was confronted by one of the experimenter's models while the confederate was in the company of an unknowing subject. The confederate would first offer a petition to the model, who would either sign or refuse to sign, after which the petition would be presented to the subject. Their findings were similar to those from the jaywalking studies in that the subjects did tend to imitate the model's response. Himelstein and Moore (1963) essentially replicated the study by Helson and his associates, with the added experimental manipulation of race of the model who offered the petition. They found that while the race of the model apparently did not make any difference in the rate of imitation, the mere presence of any model did (i.e., black and white models induced similar amounts of imitation).

Still other researchers have attained similar findings. Bryan and Test (1967) had a female confederate stand beside a car with a flat tire. In some cases, she would stand alone, while in others a male confederate

would also be present, pretending to change the tire. The authors found that significantly more drivers stopped when the male confederate was present than when the female was alone. Rosenbaum (1956), in a study of volunteering responses of male college students, found that more would volunteer to take part in a psychological experiment after they witnessed a model volunteer than would volunteer without the model present. Stein (1967) assigned a rather boring task to fourth-grade boys (one at a time) while an interesting movie was being shown in an area next to where the boys worked. In some cases, a model was present who would either yield to or resist the temptation to watch the film instead of working on the task. The findings revealed that boys who were in the presence of a model who yielded to the temptation tended to yield and imitate the model more than those who worked by themselves. Walters and Amoroso (1967) set up a laboratory experiment in which the eye movements of male subjects were measured while they viewed slides of both nude and fully clothed women. During an intermission, they were shown a film of the eye movements of a prior subject who was actually a confederate of the authors. The subject was then shown the slides again and his eye movements recorded again, with the result typically being that the subject's eye movements were similar to those of the model in the film which he had just seen, leading Walters Amoroso to conclude that "The subjects' behavior during the generalization test was quite strongly influenced by the type of model to which they had been exposed" (Walters and Amoroso, 1967:182).

Flanders (1968:327), in a review of literature on imitative behavior, states that "support has been found for the prediction that (observers) more readily imitate (models) of higher status." For instance, Lefkowitz, Blake, and Mouton (1955) found that a model dressed in high status clothing

(e.g., suit and tie) induced significantly more jaywalking from naive subjects than did a model in lower status clothing (e.g., old work clothes). Harvey and Rutherford (1960) had school children of various ages examine and evaluate pictures, after which a model of either high or low perceived status would either agree or disagree with the child's judgment. The authors found that a significant number of children in several age groups changed their opinions when the high status model disagreed with their judgment, but that they tended to retain their original opinion when the lower status model disagreed.

Other studies indicate that people of higher status and those of lower status are differentially perceived and reacted to by individuals. Thune, Manderscheid, and Silbergeld (1980) observed two mixed-sex therapy groups to determine what types of interaction patterns would emerge. One group was composed of five married couples, while the other consisted of ten teachers, five males and five females. Interaction in the husband-wife group was primarily controlled by the males, whereas no discernible patterns emerged in the teachers' group. The authors therefore concluded that the status roles, rather than the sex roles, of the individuals in the groups determined their amount of influence on interaction patterns within the groups, since the husbands were regarded as having higher perceived status than the wives, and the teachers all had the same status. Strodtbeck, James, and Hawkins (1957) conducted a study of jury deliberations to determine if people react to individuals of different occupational statuses the same in a temporary task group, in which the members do not expect to have any further interactions with each other beyond the group, as they do in their outside lives. They found that jury foremen are typically selected from higher status occupational groups, such as store

proprietors, and that jurors from all occupational status groups rated those of higher status as being those they would most like to have on their jury if they were on trial themselves. Doob and Gross (1968), in a study of induced frustration, had a car at a stoplight wait for twelve seconds before going when the light turned green to see what the response of the driver immediately behind the experimenters' car would be. In some cases, the authors used a shiny new Chrysler Imperial, while in others, they used either a rusty old Ford or a gray Rambler. They found that motorists were more likely to honk their horns at the lower status cars (the Rambler and the Ford) than at the higher status Chrysler. Afterwards, a questionnaire was given to an undergraduate psychology class to determine what they thought they would do in a similar situation. Half were given questionnaires which stated that the car which did not move was the Chrysler, the other half, the Rambler. It is interesting to note that significantly more males stated that they would honk at the Chrysler (this trend was reversed for females); thus, for the males, their stated responses did not coincide with the actions of the subjects in the field.

The findings of studies which have manipulated the sex of the model, or which have attempted to define sex as a status characteristic, have not been nearly as consistent as the above findings for perceived social status. Three studies by Bandura and his associates illustrate this point. Bandura and Kupers (1964) had a child participate in a bowling game with a model. A bowl of candy was placed nearby, and the child and model were told that they could help themselves. The model would take some candy after a good score, but not after a bad one. Both male and female models were used, with the result being that the sex of the model had no influence on the action of the child. Two studies by Bandura, Ross, and Ross

(1961; 1963), however, produced different findings. In one project (Bandura, Ross, and Ross, 1961), children were exposed to adult models of both sexes who demonstrated both aggressive and nonaggressive patterns of play with various toys. They noted that "Imitation was found to be differentially influenced by the sex of the model..." (Bandura, Ross, and Ross, 1961:582); for instance, boys tended to display more aggressive play patterns than girls after being exposed to the male model. The other study (Bandura, Ross, and Ross, 1963) exposed children to films of models, as well as to the models themselves in similar aggressive-nonaggressive play situations, with the similar finding that those exposed to the male model showed more aggressive tendencies than those exposed to the female.

A number of other studies indicate that sex of model makes no difference in inducing imitation, and that sex may not be a salient status characteristic. In a study of imitated jaywalking, Russell, Wilson, and Jenkins (1976:272) found that "...high status models can induce significant jaywalking regardless of their sex or race"; in other words, the mere presence of the model was sufficient to induce more jaywalking, with sex of model making no additional differences. O'Connell (1965) set up a guessing game in a laboratory to determine imitation patterns. The subjects were divided into pairs, some same-sex and others mixed-sex. Half the pairs were told that they were to work together on the game, while the others were informed that they were competing against each other. O'Connell found that there was more imitation in the cooperative pairs than the competitive ones, and that "Sex of M[odel] and I[mitator] had no significant effect" (O'Connell, 1965:175). He did find that imitator's sex interacted with several other variables to reach statistical significance. Thune, Manderscheid, and Silbergeld (1980), as mentioned above, found that sex

roles apparently had no effect on interaction patterns in mixed-sex therapy groups; male and female teachers assumed similar roles in initiating and participating in conversations. Steinbacher and gilroy (1976) attained the opinions of both male and female college students on a controversial subject, and then divided the students into four-person groups to discuss the issue. Some groups had one person on one side of the issue together with three members of the opposite sex who took the other side, while other groups were all of the same sex, still with one member of a dissenting opinion. Steinbacher and Gilroy (1976:303) state that their study "...notes a changing conception of the female role." They observed, for example, that females were actually more successful than males in swaying the opinions of the other group members, and that they changed the opinions of males more often than they did those of females.

While the research cited above indicates that sex plays no part in inducing imitation and is also not considered to be a status characteristic, there is evidence to the contrary. For instance, in a study centered around organ grinders in Amsterdam, Lincoln (1977) observed donations to the grinders both after a model donated and in the absence of a model. He found that "...both male and female models increased the rate of subsequent donations over the no model rate, with male models eliciting a more dramatic increase" (Lincoln, 1977:36). Lincoln also found that males who followed female models did not show any increase in their rate of donation. The two studies by Bandura, Ross, and Ross (1961;1963), cited above, also found that sex of model can make some differences in imitative behavior.

Strodtbeck, James, and Hawkins (1957:715), in the study of jury deliberations, found that "...only one-fifth as many women were made foreman as would be expected by chance." The authors also state that "Men, in

contrast with women, and persons of higher in contrast with lower status occupations have higher participation, influence, satisfaction and perceived competence for the jury task," (Strodtbeck, James and Hawkins, 1957:718) which would indicate that sex is considered as a status characteristic. Lockheed and Hall (1976), in a study of mixed-sex task groups, come up with findings which are in direct contrast with those of Thune, Manderscheid, and Silbergeld (1980). Lockheed and Hall (1976:113) found that "...a woman is more likely to yield to a man's opinion than vice versa." They contend that sex should be perceived as a status characteristic in that there are different expectations for males and females, and that males are generally expected to be "better" than females, particularly in assuming leadership responsibilities. In the task groups which they set up, men did tend to emerge as leaders more often than did women. Radecki and Jennings (1980:78) found that "...sex emerged as a salient status variable in interactions between male and female employees." They found in their survey that both sex and occupational status of the subject had a bearing on the rates of initiating interactions with co-workers and on the nature of those interactions. Their predictions that males and those of higher occupational status tend to display more dominating types of behavior (e.g., physical contact) were confirmed.

Two other studies indicate that sex roles are stereotyped, with men being accorded higher status than women. Touhey (1974) used job descriptions to ask respondents to rate the status of occupations. In some cases, an occupation was said to have a low proportion of women with no prospects for an increased proportion in the future, while in others, the same job was said to currently have a low proportion of women but that drastically higher proportions were expected in the future.

Touhey found that the job description which predicted that the proportion of women would remain low was evaluated favorably considerably more than was the one which stated that more women were expected to enter the field in the future. Broverman et al. (1972:75) analyzed the responses to a sex-role questionnaire and concluded that there are "...clearly defined sex-role stereotypes for men and women." Women were perceived to be relatively less competent, less independent, less objective, and less logical than men. Those traits which were perceived to be masculine were also typically viewed as more desirable than the feminine traits.

In light of the contradictory findings of various imitation studies, Flanders (1968:327) points out that "The available experimental manipulations of sex of (model) suggest few dependable effects." There seems to be similar confusion as to whether or not sex should be regarded as a salient status characteristic.

Of the imitation studies reviewed here, none manipulated both the sex and the perceived social status of the model. The purpose of this study, then, will be to extend the research in this area by conducting such a manipulation. The findings may also provide some clues as to whether or not sex should currently be regarded as a status characteristic. As Russell, Wilson, and Jenkins (1976:273) state, "A significant sex-x-social status interaction would shed light on how the subject weights information about dimensions of status, whether he integrates them or considers them separately."

Besides these considerations, the estimated age and the sex of the subjects will be noted to see if these characteristics have any bearing on jaywalking in either the no-model or experimental conditions. In

addition, the three previous jaywalking studies which my research is patterned after were carried out in relatively large cities (Dannick's (1973) study was conducted in Syracuse, New York; Lefkowitz, Blake, and Mouton (1955) in Austin, Texas; and Russell, Wilson, and Jenkins (1976) in Birmingham, Alabama); my data were gathered in a midwestern city which is considerably smaller than all of these cities. Although no hypotheses will be set forth for the findings on this dimension, it may be relevant to note any major differences between my findings and those of the researchers who collected their data in larger cities.

CHAPTER II

THEORETICAL CONSIDERATIONS AND HYPOTHESES

Two of the jaywalking studies mentioned in the previous chapter have made use of psychological theories to predict and explain their findings. Dannick (1973) referes to Adaptation-Level Theory, while Russell and his colleagues (1976) utilize the idea of behavioral contagion.

Helson (1964:37) discusses the basic tenet of Adaptation-Level Theory:

> Adaptation-Level Theory has as its central idea the notion that ...an individual's attitudes, values, ways of constructing his experiences, judgments of physical, aesthetic, and symbolic objects, intellectual and emotional behavior, learning, and inter-personal relations all represent modes of adaptation to environmental and organismic forces.

In other words, the individual is confronted with a number of different stimuli in various situations. These stimuli can induce both mental and physical responses from the individual, which are his/her ways of adjusting to and interpreting the environment. Blake (1958:229) summarizes three types of stimuli which are said to be present in a given situation. The first is the central stimulus, which defines what the appropriate response should be and is initially the primary focus of attention. The second is the background or context which consists of all other stimuli in the immediate environment, including the actions of others involved in the same situation. The third type, or residual stimuli, represents individual factors, such as differences in past experiences. Both Blake and Dannick hold that the biggest source of influence of these three is the background within which the situation occurs. In an induced jaywalking

experiment, the primary background factor would be the presence of a model who crosses the street against the light; it was Dannick's hypothesis that this action by the model would redefine the situation for the subject, so that he/she would also cross against the light.

Behavioral contagion, as utilized by Russell, Wilson, and Jenkins (1976), holds that someone waiting at a street crossing may want to cross right away and proceed with his/her business, but he/she is kept from doing so by the light; in other words, he/she might fear legal reprisals if he/she jaywalks. However, if another pedestrian joins him/her on the corner and then crosses before the light changes to "Walk," the normative restraints may be reduced to the point that he/she will jaywalk also. Behavioral contagion then, would appear to be a "stimulus-response" type of approach to such a situation.

It is my contention that both of these orientations provide insufficient explanations for the behavior observed in field experiments such as induced jaywalking studies. I base this assertion on the argument that neither behavioral contagion nor Adaptation-Level Theory adequately takes into account societal factors which can have an impact on the actions of the individual. Both of these approaches seem to look strictly at the stimuli which confront the individual in his immediate environment, and his responses to these stimuli, without considering the decision-making process which the individual goes through in choosing his course of action. This is a process which I contend is based on the individual's delineation and interpretation of a set of symbols, the meanings of which are developed and shared by other members of the society. The Social Behaviorism of George H. Mead provides a perspective which takes such a process into account.

Mead's Theory

A very good summary and analysis of Mead's theory is provided by Meltzer (1978). Except where noted, this section is drawn from Meltzer's writing.

Many psychological theories, including behavioral contagion and Adaptation-Level Theory, see social processes as being products of the individual mind. For instance, Helson (1964:63) argues that "Group behavior can be conceived as the resultant of pooled individual behaviors and hence as functions of individual modes of adjustment." Mead's view is quite the opposite of these approaches in that he sees the mind as emerging from the social context; that is, the mental processes of the individual come about as a result of his/her communication (interaction) with others. Sub-human behavior, from Mead's point of view, does take place in a stimulus-response context. Animal actions carry no real conscious meaning, in that animals are unable to symbolically interpret and attach meaning to the gestures of other animals; they react instinctively to what they experience. Human beings, on the other hand, are capable of attaching meaning to both the gestures which are made by other humans and to the objects which are parts of their environment. It is Mead's argument that human society is based upon consensus, or shared meanings of gestures, objects, and so on. For instance, practically everyone is able to understand and conjure an image of what the word "table" represents. Similarly, patterns of action are symbolically represented and interpreted on the basis of common meanings; the command "Sit in the chair" is typically understood by both the person who speaks it and the person who hears it.

Mead regarded the process of role-taking as being essential to the

formation of such a consensus (and therefore society). Role-taking is the process whereby one person is able to put himself in the position of another person so that he can symbolically imagine the completion of an act. When one person commands another to "Sit in the chair," the person who gives the command can picture the other person carrying out the desired behavior (sitting down), an image which is shared by the person who hears the command.

It can be seen, then, that people have the ability to respond to their own gestures. This indicates that each individual has what is referred to as a "self." As Meltzer (1978:18) states, "Mead simply means that such an individual may act socially toward himself, just as toward others." The individual can therefore view himself as an object.

The formation of the self is also linked to role-taking. The ability to take the role of another person emerges as a result of learning the "significant symbols" of the groups to which one belongs. Learning to communicate through language is seen as being crucial to learning these symbols, and therefore is crucial to the process of role-taking. Meltzer (1978:18) states that "The development of the self is concurrent with the ability to take roles." Once an individual is able to attach meaning to the actions of others, he/she is able to attach the same meanings to his/her own actions.

As the individual comes to fully develop the self, he/she acquires the ability to take the roles of more than one person at the same time. Through taking the roles of a group of others, a person develops what Mead referred to as the "generalized other." It is from the standpoint of the generalized other that the person comes to look at him/herself and his/her behavior. Meltzer (1978:19) asserts that "This generalized

other represents, then, the set of standpoints which are common to the group." Once the individual incorporates these standpoints, they become the foundation upon which he builds relatively stable or consistent patterns of behavior.

There are two components or phases involved in the self. One Mead refers to as the "I," and the other, as the "Me." The "I" is what Meltzer (1978:19) calls "the impulsive tendency of the individual," while the "Me" refers to "the incorporated other within the individual." The "I," then, is the initiator of an act, while the "Me" gives direction to and regulates the act on the basis of the generalized other within the individual. Meltzer (1978:19) goes on to state that "In the operation of these two aspects of the self, we have the basis for, on the one hand, social control and, on the other, novelty and innovation."

Concurrent with the development of the self is the development of the mind. The mind is seen by Meltzer (1978:20) as "...constituting (in a very important sense) the self in action."

The mind is not present at all times. There are some activities, such as tying a shoe, which become "perfect in habit"; that is, they are repeated so much that "consciousness of meaning" is pushed aside and the act is carried out automatically (Lauer and Handel, 1977:13). For acts that are not automatic, however, a decision must be made by the individual as to what an appropriate course of action might be. The mind, as the active element of the self, comes into play here.

Mead begins his discussion of how the mind operates by contending that the individual does not respond to every stimulus in his/her immediate environment. Some are selected for attention, while others are ignored. As Meltzer (1978:20) states, "Bombarded constantly by stimuli,

the organism selects those stimuli or aspects of its field which pertain to, are functional to, the acts in which the organism is engaged." For instance, Meltzer points out that someone involved in a fight for their life will not be too concerned with food at that point. It is Mead's notion, then, that humans do not make an immediate response to the stimuli in their environment. Their actions are delayed while the various alternatives to approaching the situation and their consequences are tried out in the imagination. As Meltzer (1978:21) asserts,

> This implies that the individual constructs his act, rather than responding in predetermined ways. Mind makes it possible for the individual purposively to control and organize his responses. Needless to say, this view contradicts the stimulus-response conception of human behavior.

The mind can be regarded as being a process of mediation between the "I" and the "Me." The impulsiveness of the "I" interacts with the generalized other represented in the "Me" so that the best solution to the problem at hand might be reached. The activity of the mind, then, is a mental activity through which a person reacts to himself, just as he would react to another individual. This is done through the use of the same significant symbols that are used in communication with others.

Meltzer (1978:23) points out that

> All human activity other than reflex and habitual action is built up in the process of its execution; i.e., behavior is constructed as it goes along, for decisions must be made at several points. The significance of this fact is that people act- rather than merely react.

The act, then, is Mead's focus of study. The act covers every aspect of human behavior, from its beginning in the form of an impulse, through a period of analyzing the situation to decide upon a proper response, culminating in a final decision to release the impulse and attain the desired objective. Once again, it can readily be seen that such an

approach is very much the opposite of theories which are based on the stimulus-response notion. Mead also asserts that acts may be for any duration. For example, they can range from attending a class to the entire process of attaining a college degree.

Application of The Theory

Now that Mead's theory has been presented in its abstract form, it can be applied to a real-life situation such as the one with which this study is concerned. As an individual approaches a street corner, he is confronted with a number of different stimuli, such as signs, store displays, advertisements, and the presence of other pedestrians. Once he reaches the corner, a number of stimuli are temporarily blocked out, as they are not considered relevant to the situation at hand. The stimuli which will be of interest to the individual will be the crosswalk light and the flow of traffic from each direction.

Upon reaching the corner and narrowing down the environment, the individual then begins the act. The light reads "Don't Walk," the meaning of which is clear; it is understood by all (i.e., there is a consensus or shared meaning) that one must wait at the corner until the light changes to "Walk" before crossing. Should someone cross before the light changes, he/she faces the possibility of legal sanctions. When traffic is clear, however, the "I" in many people will impulsively say that is is all right to proceed across the street; at the same time, the "Me" will indicate that the shared meaning of the light is still present and perhaps should be heeded. It is here that the negotiation process (i.e., the mind) swings into action. The individual has a decision to make between waiting on the corner and crossing against the

light. Since, as Mead indicates, not everyone reacts to the same environment in the same manner, some persons will choose to complete the act by waiting until the light changes, while others will choose to proceed across the street.

Now let us say that another stimulus is introduced into the situation for those who chose to wait on the corner: the presence of another pedestrian. If this other pedestrian chooses to cross before the light changes, then the mediation process between the "I" and the "Me" begins again. The "I" will contend that it is now all right to cross, while the "Me" will still hold to the principle of the generalized other, which will maintain that the individual should stay until the light changes to "Walk." It is also possible that some aspects of the other pedestrian can act as stimuli. For instance, the negotiations between the "I" and the "Me" may take different turns depending on what the sex and the perceived social standing of the other are. Once again, there will be cases when the individual will wait and others when he/she will go across in imitation of the model. It can be seen, then, that acts are ongoing processes, and that individuals do not merely respond to the stimuli in the immediate environment; in fact, they construct their own environments and choose which stimuli to respond to and which to ignore in a given situation.

Hypotheses

Through the application of Mead's theory, and on the basis of the review of literature from the previous chapter, several hypotheses can now be set forth.

First, I contend that the presence of a model who violates the sanction imposed by the crosswalk light will be sufficient to induce

more pedestrians to jaywalk than would be expected in the absence of the model. This would replicate the findings of the previous imitation studies.

Second, based on the findings of previous studies, I would expect that people tend to imitate high status models more than those of lower status.

Third, the ambiguous findings of studies which have dealt with sex of model lead me to contend that the male model and the female model will induce similar amounts of imitation. I would expect then that the effects of social status of the models will generalize across sex; male and female high status models should induce more imitation than male and female low status models.

As mentioned in the previous chapter, I will also note the sex and estimate the age of each subject in the study. No hypotheses will be drawn here, but I will note whether any differences arise by sex or age of subject.

CHAPTER III

METHODS AND RESEARCH DESIGN

The research conducted in this study is experimental in nature. Although the data were collected in a real-life situation, I feel that it is relevant to discuss some aspects of laboratory experiments as well, particularly those points which are regarded as either advantages or disadvantages in comparison with field experiments.

A number of sources cite a major advantage of laboratory experiments in the social and behavioral sciences as being that of the researcher having nearly complete control over the variable(s) being manipulated (c.f. Aronson and Carlsmith, 1968; Kerlinger, 1973; Rosenblatt and Miller, 1972; Simon, 1969). As Simon (1969:237) states:

> In an experiment it is you, the experimenter, who manipulate the independent variables. If you observe variations in the dependent variable, they must therefore be caused by the variations in the independent variable and not by some other force that is affecting both the independent and dependent variables at the same time. This property of the experiment makes it possible to talk confidently about one aspect of causation.

In other words, in a properly conducted laboratory experiment, cause and effect relationships are more clearly established than in perhaps any other method of social research, largely due to the laboratory condition itself, which isolates the research procedure so that most, if not all, extraneous variables are controlled (Kerlinger, 1973:398-399). The only possible alleged effects on the dependent variable, then, are those brought on by manipulation of the independent variable(s).

Another advantage of laboratory experiments is that "...one has the opportunity to vary the treatment in a systematic manner, thus allowing for the isolation and precise specification of the important differences" (Aronson and Carlsmith, 1968:9). Multivariate causation can thus be established much easier and more clearly than in other methods, such as surveys. One variable can be held constant while another is varied, and vice versa, so that the extent of their respective effects on the dependent variable can be established (Simon, 1969:239).

Aronson and Carlsmith (1968:7) feel that the ability to randomly assign the units to be studied to the various experimental conditions is the most important advantage of experiments. Similarly, Cook and Campbell (1979:5) state that "One of the great breakthroughs in experimental design was the realization that random assignment provided a means of comparing the yields of different treatments in a manner that ruled out most alternative explanations." Random assignment requires that experimental units be assigned to a treatment level in some unbiased manner (e.g., the flip of a coin). Cook and Campbell (1979:5) go on to assert that "Given a sufficient number of units relative to the variability between units, the random selection procedure will make the average unit in any one treatment group comparable to the average unit in any other treatment group before the treatments are applied." Randomization, then, helps to insure that the groups in an experiment will be at least roughly equivalent to each other according to the relevant criteria of the particular study.

Laboratory experiments are perceived to have their problems, however. Kerlinger (1973:399-400) and Simon (1969:240), for instance, cite

a lack of realism in laboratory settings as being a major disadvantage of this particular approach. Simon (1969:240) argues that "...there is always some risk involved in generalizing from what happens in the laboratory to what happens in the real world." Almost by definition, a laboratory setting is contrived, so that the findings of the study may not be relevant for real-life situations. Festinger (1953:139), however, counters this argument:

> A word must be said about this criticism, because it probably stems from an inaccurate understanding of the purposes of a laboratory experiment. A laboratory experiment need not, and should not, be an attempt to duplicate a real-life situation. If one wanted to study something in a real-life situation, it would be rather foolish to go to the trouble of setting up a laboratory experiment duplicating the real-life condition. Why not simply go directly to the real-life situation and study it?

Why not, indeed? In this study, for example, it would be ridiculous to establish a laboratory setting to study jaywalking when it can be observed naturally and at a much lower cost on a real-life street corner. Experiments need not be restricted to the laboratory, as Campbell and Stanley (1963:34) point out:

> There are many natural social settings in which the research person can introduce something like experimental design into his scheduling of data collection procedures (e.g., the <u>when</u> and <u>to whom</u> of measurement), even though he lacks the full control over the scheduling of experimental stimuli (the <u>when</u> and <u>to whom</u> of exposure and the ability to randomize exposures) which makes a true experiment possible. Collectively, such situations can be regarded as quasi-experimental designs.

Reich (1982:2) indicates that there is currently a great deal of pressure for social psychologists to study social behavior in as natural an environment as possible, and that "The goal of this new movement is to develop the ability to move back and forth between the laboratory

and the real world and to understand the fundamentals of social behavior from both perspectives as much as possible." In effect, then, a real-life setting can become the experimenter's laboratory in which he/she actively intervenes or alters the environment in some manner.

Webb and his colleagues (1966) even contend that passive observation (i.e., no observer intervention) has two costs. One cost is that the behavior being observed may occur so infrequently that quite a bit of time and effort must be expended in gathering data; the other cost is that "The naturally occurring behavior is not stimulated by events of sufficient discriminability." (Webb et. al., 1966:155-156). In this study, for instance, my use of confederates who jaywalk in the presence of naive subjects allows me to gather a sufficient amount of data in a few days. I can also make use of different models and vary characteristics of the models with relative ease. To study imitated jay-walking in any other manner would be, at best, extremely difficult and time-consuming.

The aforementioned problem of lack of realism in laboratory experiments is largely, if not totally, eliminated when it is possible to do a field experiment instead. Rosenblatt and Miller (1972b:59), for instance, hold that field experiments "seem to be the obvious solution" to the problem of experimental realism; Simon (1969:240) echoes the contention that field settings are more realistic. Even if it was convenient to set up a laboratory to study jaywalking, the situation would still be contrived. I would argue that, in a sense, the setting would be too "pure"; as stated above, there would be a great deal of concern as to whether or not the findings would be applicable to a real-life street corner. As Kerlinger (1973:402) contends, "The more realistic

the situation, the more valid are generalizations to other situations likely to be"; a similar assertion is made by French (1953:103-104).

French (1953:101) and Kerlinger (1973:401) hold that the differences between laboratory experiments and field experiments are often not distinct; they are mostly matters of degree. As I asserted above, the natural setting becomes the researcher's laboratory, in a sense. The main difference is that the "laboratory" in this case is not enclosed or isolated; it is open to outside influences. Kerlinger (1973:402) indicates that the lesser amount of control in field experiments has both a positive and a negative aspect. Since control is difficult to establish in many (or most) field settings, there is always the danger of outside contamination. However, when relatively tight control can be attained, the field experiment is preferrable to the laboratory experiment in that causation can be more firmly established for real-life situations. In this study, I feel that I have been able to identify and in some way control all the relevant environmental factors; in other words, I should be able to attain a great deal of control over the situation, which I hopefully make clear in my research design.

Random assignment of subjects to treatment groups is frequently not possible in field experiments (Cook and Campbell, 1979:5-6; Kerlinger, 1973:403; Phillips, 1971:108). This study is just such an instance. I must observe subjects as they appear on the scene; I have no way of manipulating who comes to the street corner and who does not. Certain threats are therefore posed by the possibility that the treatment groups will not be equivalent. For example, characteristics of the subjects, such as age and sex, may play a role in causation as well as my manipulations of the independent variables. My task, then, is "...to

explicate the specific threats to valid causal inference that random assignment rules out and then in some way deal with these threats" (Cook and Campbell, 1979:6). It is my contention that the best way to handle these dangers is simply to carefully delineate all possible intervening variables, and to take them into consideration, both in the collection and analysis of the data. Besides, random assignment, in itself, is no guarantee of tight experimental control. As Phillips (1971:108) points out in his discussion of randomization,

> ...we should bear in mind that there is no such thing as perfect control when randomization procedures are used. It is also quite possible that an experimenter who uses randomization has so little knowledge of the forces operating in the experimental situation that he is able to learn much less than if he initiated a well-conceived natural experiment.

Campbell and Stanley (1963) and Cook and Campbell (1979) elaborate extensively on problems of validity in different types of experiments and quasi-experiments. Deutscher (1973:113) contends, however, that direct behavioral observation is about as close as you can come to establishing validity, as long as you are concerned with directly observable behavior, as this project is; he states that "The closer the observation to the empirical phenomenon, the greater the probability of validity (other things being equal)." Weigert (1970) argues that measures of validity are largely rhetorical in nature, anyway; that is, they are merely aimed at convincing the "gatekeepers" of the discipline, such as journal editors, that the researcher is indeed studying what he claims to be studying. In my research design, I will therefore define my variables and research setting as thoroughly as possible, make my observations carefully and honestly, and, without elaborating on any specifc types of validity, let the hopefully valid chips fall where they

may.

Setting and Research Design

After making casual preliminary observations at several locations, I decided to carry out my research at an intersection in the downtown area of an east central Illinois city. The city has a population of approximately 20,000, 98% of whom are white (U.S. Department of Commerce, 1981:52). The intersection I chose is the crossing of the main downtown thoroughfare and a small side street (see figure 1). The main street has two lanes of motor traffic going in each direction, while the side street has one lane in each direction. Motor traffic flow is regulated in each direction by a standard red-yellow-green traffic light. Pedestrian crosswalks are located at each point of the intersection, with each crosswalk regulated by a "Don't Walk" light. When the motor traffic for one street has the green light, the lights for the two parallel crosswalks read "Walk", indicating that pedestrians may safely cross the street. After a short period of time, the crosswalk lights change to a flashing red "Don't Walk", which means that those already in the intersection have enough time to make it across but that those who have just arrived at the corner should either wait or exercise caution if they do cross. When the motor traffic light for the street perpendicular to the crosswalks turns from red to green, the crosswalk lights change to a solid red "Don't Walk", meaning that no one should cross the street until the light turns back to "Walk". Intersections similar to the one which I chose to observe are located one block away in each linear direction on the main street.

In making my preliminary observations, I noticed that there are frequent occasions when the "Don't Walk" light is on even though motor

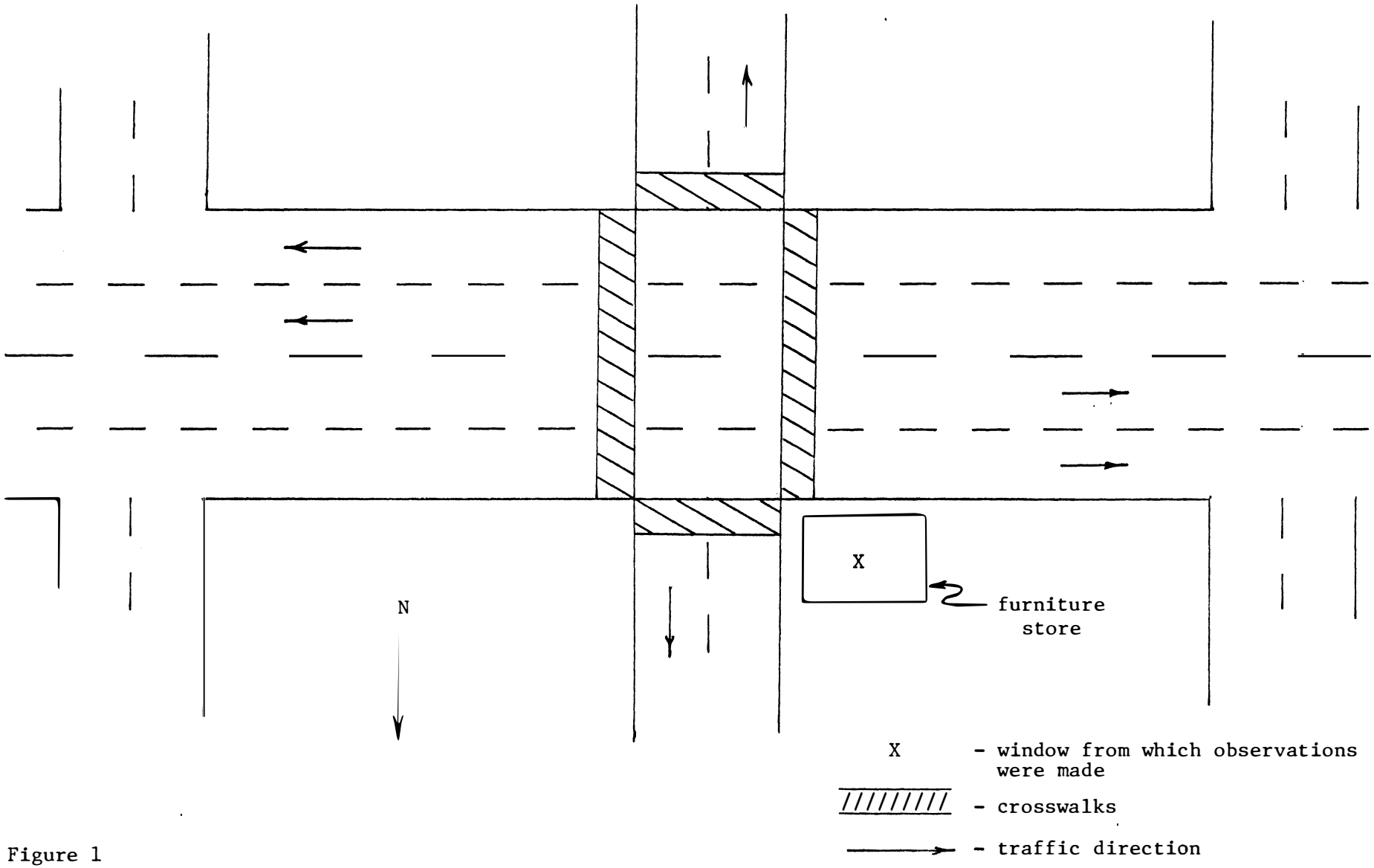
X
furniture
store
N
X - window from which observations were made
- crosswalks
- traffic direction

Figure 1

traffic is clear in both directions. I also observed that pedestrians frequently arrive at the intersection to cross the street in such a situation. The presence of these conditions make this intersection amenable to a jaywalking study; in other words, the opportunity is there to jaywalk, and the subjects are often there to take advantage of it. Another pertinent observation which I made is that pedestrians seldom cross the street at any place other than the crosswalks on the main street, but that they frequently do so on the side street. Due to this tendency, I decided to eliminate the two crosswalks on the side street from the study; this was done in an attempt to prevent any influences on the subject, other than those introduced by my confederates in the experimental conditions, and to help minimize outside influences in the non-experimental, or baseline, condition. Eliminating these two crosswalks also simplified the observation process a great deal.

Some pedestrians were eliminated from my observations on both ethical and practical grounds. Pre-adolescent children were not used in the experimental conditions because I felt that it was best not to take any risks on their not being able to make it across the street in time even though my confederates were instructed not to cross until traffic was absolutely clear. I also decided that the very elderly and those with physical handicaps which hampered their ability to walk should be eliminated. In these cases, the same ethical reasons given for the elimination of pre-adolescent children applied; another important consideration here was a practical one. I reasoned that in many of these cases, the subject may have wanted to cross against the light, but was kept from doing so by his/her handicap. Those subjects who were included, then, were those between approximately fifteen and sixty-five years of

age who appeared to have no physical impairments. All others were eliminated from both the experimental and baseline treatment conditions.

Another factor which I had to consider while looking for an appropriate intersection was the availability of a good place from which I could make my observations. My initial observations were made from my car, which was parked in a space adjacent to the intersection. I soon discovered, however, that such a vantage point is plagued by a number of disadvantages. For example, I found that while I was able to monitor the pedestrians' actions with relative ease, I was not able to simultaneously check the motor traffic lights and crosswalk lights; the importance of being able to do so will become apparent below. I also found that it was difficult to check motor traffic from both directions on the side street and from one direction on the main street; for instance, I had to constantly turn around to check the traffic behind me on the main street. Besides the physical discomforts involved, I found that in some cases, I would turn back around after checking the motor traffic, only to discover that the traffic light had changed. Some observations were therefore lost.

The solution to this problem was to find a vantage point from which I could check pedestrians, the motor traffic, and the lights, all with a few quick looks. The second floor window of a store located on one of the corners of the intersection provided just such a setting (see Figure 1). From this window, I was able to clearly check motor traffic for a block in each direction on the main street and for about half a block in one direction on the side street. The window also looked directly down on on the traffic lights and crosswalk light, which allowed me to check both of them in one glance. Being at a higher position also made it easier

to check everything with just a couple of looks; therefore, very few observations were missed.

Several potential sources of environmental contamination had to be identified and controlled. For instance, one of my initial contentions was that there would be more jaywalking under bad (i.e., rainy) weather conditions than under good weather conditions; a subsequent test showed that this is apparently true. I therefore decided to make all observations on days with no threat of rain and moderate temperatures. The data were gathered, then, on clear or partly cloudy days from late June through mid-July, with temperatures ranging from the low seventies to the mid-eighties. I also thought that different numbers of pedestrians waiting at the corner could influence an individual's decision on whether or not to jaywalk, so all observations were made with only one subject on the corner in the baseline conditions and with one subject in the presence of one of my confederates for the experimental conditions. While making observations, I also noted the sex of the subjects and estimated their ages at five year increments to see if these factors had any bearing on the results. I controlled for time of day and day of week by making all observations on weekday afternoons.

Once I established my setting and decided which subjects should be eliminated from the study, my next step was to make more preliminary observations so that I could operationally define what I was viewing. The first problem to be addressed was to decide exactly what is, and what is not jaywalking. My first inclination was simply to say that a person jaywalked when he/she crossed the street when the solid red "Don't Walk" light was displayed. Both my initial observations and my own street-crossing behavior led me to qualify this definition somewhat,

however. For instance, while I am waiting at a crosswalk, I watch the motor traffic light for the street I am crossing. When the light turns from green to yellow, I take a quick look to make sure that traffic is indeed coming to a stop, and then I start across the street, even though the crosswalk light still reads "Don't Walk." My preliminary observations showed that some other pedestrians do the same thing. I decided that such instances are on the borderline between jaywalking and complying with the sanction imposed by the light since the crosswalk light almost invariably turns to walk before the subject reaches the other side; I therefore eliminated all such cases from the study. I also noted that in some cases, the pedestrian will start across the street when the "Don't Walk" light is flashing on and off. As mentioned above, this is an indication that the motor traffic light is about to change from red to green, so that no pedestrians should enter the crosswalk, or at least that they should do so with caution. These cases were also eliminated due to the fact that the motor traffic is still stopped when the pedestrian starts across, thus producing another borderline situation. Jaywalking, then, was said to have occurred when a pedestrian entered the crosswalk while the motor traffic light on the street which he/she was crossing was green and the crosswalk light was a solid red (not flashing) "Don't Walk."

Defining what is not jaywalking proved to be somewhat more involved than I had previously suspected as well. Once again, I was tempted to simply define adherence to the sanction imposed by the light as occurring whenever the subject waited on the corner until the crosswalk light changed to "Walk." It did not take me long to realize, however, that there are many times when the pedestrian cannot make it across until the

light changes to "Walk," whether he wants to or not, due to the traffic flow being too heavy. Such instances could not be recorded in the study. It was therefore necessary for me to judge how far away from the intersection the nearest motor traffic should be in each direction on the main street so that the pedestrian has enough time to safely cross at a normal walk. More observations revealed that when traffic was clear for about one block in each direction, the pedestrian had sufficient time to make it across. At times, in fact, traffic is stopped at the intersections one block away by the red lights so that there is virtually no threat posed to the potential jaywalker. I therefore defined adherence to the crosswalk light as occurring when the subject waited on the curb for the light to change even though there was no motor traffic for approximately one block in each direction.

The first step in gathering my data was to make use of the above definitions to observe pedestrians as they crossed the street, without the presence of my confederates. The purpose of doing this was to establish a non-experimental baseline against which the results of my experimental manipulations could be compared.

In the experimental phase of the research, I made use of one female model and one male model. Both models were white and in their early twenties. Neither model had any distinguishing physical characteristics which would have confounded the results in any way (e.g., exceptionally long hair on the male), so their status was safely defined solely in terms of their attire. In the high status conditions, the female model wore a conservative skirt and blouse, and the male wore a pair of dress slacks, sportshirt, and shined shoes. The purpose here was to create the impression that they were "respectable" business people. For low

status, the female wore jeans, sneakers, and an old work shirt, while the male wore gym shorts, sneakers, and a plain tee-shirt.

In carrying out the experimental conditions, the model would wait on the street, pretending to window shop, until a subject approached the crosswalk while the solid "Don't Walk" light was on. The model would then join the subject at the intersection, wait until traffic was clear for about one block in each direction so that he/she could cross at a normal walk, and then jaywalk. I would watch from the second story window mentioned above and note whether or not the subject imitated the model by jaywalking also. I defined imitation as occurring when the subject started across the street after the model did but before the model reached the other side, and before the motor traffic light on the main street turned from green to yellow, this again being an indication that the crosswalk light was about to turn to "Walk." Non-imitation occurred when the subject waited for the light to change to "Walk," even though the model jaywalked and traffic remained clear.

CHAPTER IV

FINDINGS

The researchers in all of the three previous jaywalking studies make use of the chi square test for independence to analyze their data. I make use of the same technique to provide a point of comparison with the other studies. When statistical significance is reached, lambda is used to measure strength of association.

In the baseline, or no model, condition, eighty observations were made over four consecutive days (see Table 1). Seventeen observations were made under each of the four experimental conditions for a total of 68 (see Table 2). The data for the experimental conditions were also collected on four separate days, one day for each condition.

The first hypothesis, which holds that the presence of a model should induce substantially more people to jaywalk, gets variable support. The percentage of pedestrians who jaywalked did increase by about 15% with a model present (from 36% to 51%), but chi square does not reach a particularly high level of significance ($x^2=2.87$, $p<.1$), and the calculation of lambda reveals a weak level of association of just .03 (see Table 3). It therefore cannot be firmly contended that the presence of a model did induce significantly more jaywalking.

The second hypothesis, which asserts that models in high status attire should be more successful than those in lower status dress in inducing jaywalking, also receives variable support. Both high status

conditions (male and female) induced the same amount of imitation (59%, compared with 36% for the baseline; see Tables 4 and 5), and calculation of chi square for the baseline data versus the combined male and female high status condition does reach statistical significance ($x^2=4.09$, $p < .05$), although lambda reveals only a rather weak association of .12 (see Table 6). By contrast, comparison of the combined male and female low status model condition (see Tables 7 and 8) with the baseline does not produce a significant relationship ($x^2=.33$, $p < .7$; see Table 9). These findings would lend credence to the hypothesis; however, chi square for the high status conditions versus the low status conditions does not reach a significant level ($x^2=.94$, $p < .5$; see Table 10). In addition, there is very little difference between the findings for the low status female model (53% jaywalked) and those for either the high status male or female (59% jaywalked for each condition). Comparisons of both the high status female model with the low status female and the high status male with the low status male fail to approach significance as well ($x^2=.12$, $p < .8$ for females; $x^2=1.06$, $p < .5$ for males; see Tables 11 and 12). While the evidence for this hypothesis is somewhat stronger than for the first, then, some contradictory evidence does still exist.

The third hypothesis contends that subjects should imitate male and female models about the same; that is, the high status male and high status female should induce more jaywalking than the low status male and female. This hypothesis is confirmed more unambiguously than either of the first two. The female model actually induced more imitation than the male model did (56% to 47%) but statistical significance was not reached for the comparison between the combined high and low status male model condition and the combined high and low status female model condition

(x^2=.24, $p < .7$; see Table 13). Similarly, no significance was found for either the comparison of the combined high and low status female condition with the baseline data (x^2=3.01, $p < .1$; see Table 14) or the comparison of the combined male model conditions with the baseline (x^2=.76, $p < .5$; see Table 15) there is evidence, then, that sex of model made little difference in influencing the amount of imitation in subjects, and that sex did not interact with perceived social status.

No hypotheses were drawn for any aspects of the subjects involved in the study, but one interesting pattern did emerge. Sex of subject was noted in both the experimental and baseline conditions, and distinct differences were noted jaywalking for males and females. In the baseline condition, 55% of the males jaywalked as compared to only about 19% of the females. Comparison of the males with females reveals a high level of significance (x^2=9.81, $p < .01$), but lambda is a rather weak .14 (see Table 16). Similar results were found with the data from the experimental conditions (75% males jaywalked vs. 31% females; x^2=11.68, $p < .001$), with lambda reaching a much stronger association of .42 (see Table 17). For this study, then, substantially more males jaywalked than females.

Ages of the subjects were estimated at five year increments, after which subjects were divided into those estimated to be through age 35 and those 40 and over. For the baseline, 29% of those less than 40 jaywalked as compared to 44% of those 40 and over (x^2=1.19, $p < .3$; see Table 18). Under the experimental conditions, 54% of the younger subjects jaywalked while 48% of the older ones did (x^2=.04, $p < .9$; see Table 19). These findings show that the age of the subjects had virtually no effect on the amount of jaywalking in this study.

In summary, then, the first two hypotheses received, at best,

variable support and cannot be confirmed. The third hypothesis received somewhat more support, and males jaywalked substantially more than females in both the experimental and baseline phases of the research.

TABLE 1

BASELINE (NO MODEL) CONDITION

SEX AND AGE OF SUBJECTS

	Male, < 40	Male, ≥ 40	Female, < 40	Female, ≥ 40	Total
Cross	9 (56%)	12 (55%)	3 (12%)	5 (29%)	29 (36%)
Not Cross	7 (44%)	10 (45%)	22 (88%)	12 (71%)	51 (64%)
Total	16 (100%)	22 (100%)	25 (100%)	17 (100%)	80 (100%)

TABLE 2

EXPERIMENTAL (MODEL PRESENT) CONDITION

SEX AND AGE OF SUBJECTS

	MALE, <40	MALE, ≥40	FEMALE, <40	FEMALE, ≥40	TOTAL
CROSS	10 (71%)	14 (78%)	9 (43%)	2 (13%)	35 (51%)
NOT CROSS	4 (29%)	4 (22%)	12 (57%)	13 (87%)	33 (49%)
TOTAL	14 (100%)	18 (100%)	21 (100%)	15 (100%)	68 (100%)

TABLE 3

BASELINE VERSUS EXPERIMENTAL CONDITION

	BASELINE	EXPERIMENTAL	TOTAL
CROSS	29(36%)	35(51%)	64(43%)
NOT CROSS	51(64%)	33(49%)	84(57%)
TOTAL	80(100%)	68(100%)	148(100%)

TABLE 4

HIGH STATUS MALE MODEL CONDITION

SEX AND AGE OF SUBJECTS

	MALE, <40	MALE, ≥40	FEMALE, <40	FEMALE, ≥40	TOTAL
CROSS	4 (67%)	2 (100%)	3 (50%)	1 (33%)	10 (59%)
NOT CROSS	2 (33%)	0 (0%)	3 (50%)	2 (67%)	7 (41%)
TOTAL	6 (100%)	2 (100%)	6 (100%)	3 (100%)	17 (100%)

TABLE 5

HIGH STATUS FEMALE MODEL CONDITION

SEX AND AGE OF SUBJECTS

	MALE, <40	MALE, ≥40	FEMALE, <40	FEMALE, ≥40	TOTAL
CROSS	1 (100%)	5 (71%)	4 (50%)	0 (0%)	10 (59%)
NOT CROSS	0 (0%)	2 (29%)	4 (50%)	1 (100%)	7 (41%)
TOTAL	1 (100%)	7 (100%)	8 (100%)	1 (100%)	17 (100%)

TABLE 6

BASELINE VERSUS COMBINED MALE AND FEMALE HIGH STATUS MODEL CONDITION

	BASELINE	HIGH STATUS	TOTAL
CROSS	29(36%)	20(59%)	49(43%)
NOT CROSS	51(64%)	14(41%)	65(57%)
TOTAL	80(100%)	34(100%)	114(100%)

TABLE 7

LOW STATUS MALE MODEL CONDITION

SEX AND AGE OF SUBJECTS

	MALE, <40	MALE, ≥40	FEMALE, <40	FEMALE, ≥40	TOTAL
CROSS	0 (0%)	5 (83%)	1 (25%)	0 (0%)	6 (35%)
NOT CROSS	1 (100%)	1 (17%)	3 (75%)	6 (100%)	11 (65%)
TOTAL	1 (100%)	6 (100%)	4 (100%)	6 (100%)	17 (100%)

TABLE 8

LOW STATUS FEMALE MODEL CONDITION

SEX AND AGE OF SUBJECTS

	MALE, <40	MALE, ≥40	FEMALE, <40	FEMALE, ≥40	TOTAL
CROSS	5 (83%)	2 (67%)	1 (33%)	1 (20%)	9 (53%)
NOT CROSS	1 (17%)	1 (33%)	2 (67%)	4 (80%)	8 (47%)
TOTAL	6 (100%)	3 (100%)	3 (100%)	5 (100%)	17 (100%)

TABLE 9

BASELINE VERSUS COMBINED MALE AND FEMALE LOW STATUS MODEL CONDITION

	BASELINE	LOW STATUS	TOTAL
CROSS	29(36%)	15(44%)	44(39%)
NOT CROSS	51(64%)	19(56%)	70(61%)
TOTAL	80(100%)	34(100%)	114(100%)

TABLE 10

COMBINED MALE AND FEMALE HIGH STATUS MODEL CONDITION VERSUS COMBINED MALE AND FEMALE LOW STATUS MODEL CONDITION

	HIGH STATUS	LOW STATUS	TOTAL
CROSS	20(59%)	15(44%)	35(51%)
NOT CROSS	14(41%)	19(56%)	33(49%)
TOTAL	34(100%)	34(100%)	68(100%)

TABLE 11

HIGH STATUS FEMALE MODEL CONDITION VERSUS LOW STATUS FEMALE MODEL CONDITION

	HIGH STATUS	LOW STATUS	TOTAL
CROSS	10(59%)	9(53%)	19(56%)
NOT CROSS	7(41%)	8(47%)	15(44%)
TOTAL	17(100%)	17(100%)	34(100%)

TABLE 12

HIGH STATUS MALE MODEL CONDITION VERSUS LOW STATUS MALE MODEL CONDITION

	HIGH STATUS	LOW STATUS	TOTAL
CROSS	10(59%)	6(35%)	16(47%)
NOT CROSS	7(41%)	11(65%)	18(53%)
TOTAL	17(100%)	17(100%)	34(100%)

TABLE 13

COMBINED HIGH AND LOW STATUS MALE MODEL CONDITION VERSUS COMBINED HIGH AND LOW STATUS FEMALE MODEL CONDITION

	MALE	FEMALE	TOTAL
CROSS	16(47%)	19(56%)	35(51%)
NOT CROSS	18(53%)	15(44%)	33(49%)
TOTAL	34(100%)	34(100%)	68(100%)

TABLE 14

BASELINE VERSUS COMBINED HIGH AND LOW STATUS FEMALE MODEL CONDITION

	BASELINE	FEMALE	TOTAL
CROSS	29(36%)	19(56%)	48(42%)
NOT CROSS	51(64%)	15(44%)	66(58%)
TOTAL	80(100%)	34(100%)	114(100%)

TABLE 15

BASELINE VERSUS COMBINED HIGH AND LOW STATUS MALE MODEL CONDITION

	BASELINE	MALE	TOTAL
CROSS	29(36%)	16(47%)	45(39%)
NOT CROSS	51(64%)	18(53%)	69(61%)
TOTAL	80(100%)	34(100%)	114(100%)

TABLE 16

MALE SUBJECTS VERSUS FEMALE SUBJECTS (BASELINE CONDITION)

	MALE	FEMALE	TOTAL
CROSS	21(55%)	8(19%)	29(36%)
NOT CROSS	17(45%)	34(81%)	51(64%)
TOTAL	38(100%)	42(100%)	80(100%)

TABLE 17

MALE SUBJECTS VERSUS FEMALE SUBJECTS (EXPERIMENTAL CONDITIONS)

	MALE	FEMALE	TOTAL
CROSS	24(75%)	11(31%)	35(51%)
NOT CROSS	8(25%)	25(69%)	33(49%)
TOTAL	32(100%)	36(100%)	68(100%)

TABLE 18

YOUNGER SUBJECTS VERSUS OLDER SUBJECTS (BASELINE)

	SUBJECTS <40	SUBJECTS ≥40	TOTAL
CROSS	12(29%)	17(44%)	29(36%)
NOT CROSS	29(71%)	22(56%)	51(64%)
TOTAL	41(100%)	39(100%)	80(100%)

TABLE 19

YOUNGER SUBJECTS VERSUS OLDER SUBJECTS (EXPERIMENTAL CONDITIONS)

	SUBJECTS <40	SUBJECTS ≥40	TOTAL
CROSS	19(54%)	16(48%)	35(51%)
NOT CROSS	16(46%)	17(52%)	33(49%)
TOTAL	35(100%)	33(100%)	68(100%)

CHAPTER V

CONCLUSIONS

The findings of this research are somewhat surprising, as many results of the previous jaywalking studies are not replicated. Perhaps the most surprising finding in this study is that the presence of a model did not induce significantly more jaywalking than was noticed in the baseline condition, although somewhat more pedestrians did jaywalk under the experimental conditions. Russell, Wilson, and Jenkins (1976:272), for instance, found that whereas 18% of the pedestrians they observed in their baseline condition jaywalked, 48% jaywalked in the modeled conditions ($x^2=21.24$, $p < .001$). These findings are of particular interest since the number of subjects is nearly the same as in this study (80 in the baseline, 20 in each modeled condition). Both Dannick (1973:131) and Lefkowitz, Blake and Mouton (1955:705) also found that significantly more subjects imitated the model than jaywalked on their own; both of these studies used substantially more subjects.

It should be noted that none of the researchers who have conducted the previous jaywalking studies have used a measure of association, such as lambda, in the analysis of their data. The use of such a measure may indicate that, although chi square does reach significance in most instances, that the relationship between the variables being analyzed is actually not very strong. For example, Russell and his associates (1976:272) find that chi square is highly significant when their baseline data are compared with the rate of jaywalking induced by their black male models ($x^2=16-12$, p

< .001). Calculation of lambda for the same data, however, reveals a rather weak association of just .11. Much of the significance of the findings therefore disappears. Future studies should make more use of measures of association.

It is also interesting to note that each of the four jaywalking projects (including this one) cite substantially different percentages of subjects who jaywalked in the baseline condition. Dannick (1973:130-131) found that about 84% jaywalked under this condition, this study observed 36%, Russell and his colleagues (1976:272) recorded 18%, and Lefkowitz and his associates (1955:705) found that only about 1% jaywalked with no model. These varied findings indicate that the environment may have an important impact on such behavior. For instance, the possibility of meeting with legal sanctions may be greater in some cities than in others, or traffic flow could have been somewhat heavier in some of the areas where observations were made. Other factors such as street width and differences in observational methods may account for some of the differences, as well.

Lefkowitz, Blake, and Mouton (1955:705) found that substantially more subjects imitated their high status model than imitated the low status model; many of the other imitation studies mentioned earlier arrived at similar findings. Although a somewhat higher percentage of subjects did imitate the higher class models in this study, chi square did not reach significance in all of the relevant tests. One possible reason for this may be the relatively small number of subjects observed in each condition in this study; more observations may have resulted in larger differences. Status may have been more sharply defined in other studies, as well. For instance, Lefkowitz, Blake, and Mouton (1955) had their model dress in a

suit and tie to connote high status, while low status was indicated by dirty trousers and an unpressed work shirt. It is also possible that what I define as low status, especially in the male model condition, is actually perceived as casual status; on warm days such as the ones on which these data were collected, a tee shirt and gym shorts may be considered appropriate for anyone, and will therefore carry no status connotation. Since the research was conducted in a city which is located near a university, the models may have been perceived as being college students, which may carry a whole different set of status connotations.

The ambiguous findings for sex of model essentially replicate the findings of Russell and his colleagues (1976:272), which reveal that male and female models induce similar amounts of imitation. As expected, these findings generalize across status of model; significance was reached comparing the combined male and female high status condition with the baseline, but was not reached for low status. Also, no significance was reached comparing the male model with the female.

These findings would seem to lend some credence to the findings of Thune, Manderscheid, and Silbergeld (1980:62-63), which indicate that sex may not be a salient status characteristic in the sense that it may once have been. Women may be regarded more by their occupational status than they have been in the past. In this study, by Mead's theory, sex of model was apparently not regarded as a relevant stimulus in the environment.

The findings for sex of subject indicate that further research on this and other similar topics should pay more attention to aspects of the subjects involved. My findings are similar to those of Dannick (1973:131), who found that more males jaywalked than females under both modeled and baseline conditions, and are distinctly different from the findings of

Russell, Wilson and Jenkins (1976:272), which revealed that the same number of male and female subjects jaywalked.

It is difficult to determine whether or not the size of the city where the data were collected, relative to the size of the cities in which the other studies were carried out, had any effect on the findings. If future studies in towns of roughly the same size as this arrive at similar findings, perhaps some more firm conclusions can be reached.

As mentioned above, both Dannick and Lefkowitz, Blake and Mouton made substantially more observations in their studies. Due to time and financial restrictions, it was not feasible to gather more data for this study. Future studies in this area should make use of larger sample sizes whenever possible.

Further manipulations of relevant variables should be carried out to determine what effects they may have on imitation. For instance, Russell, Wilson, and Jenkins (1976:272) suggest that social status should be co-varied with other variables, such as race and number of subjects. Flanders (1968:326-327), in his review of literature on imitative behavior, states that age of model does not seem to have a main effect for inducing imitation, but that age may interact with other characteristics to have an effect. Future research could use models of different ages in a field experiment such as this to further examine the influence of age of model on imitation. Data could be collected on different streets of the same city; for instance, observations could be made on both two-lane and four-lane streets to see what differences arise. Research on jaywalking in different types of weather could be conducted; a rather limited number of observations made under bad weather conditions before the data were collected for this study reveal that people may tend to jaywalk more in rain, snow, etc. than they

do on more temperate days.

In closing, then, few, if any, firm conclusions have been reached in this study, but this is not to say that the effort has been fruitless. The simple fact that my findings differ in many respects from those of other researchers would indicate that some questions may still be open for consideration which were previously thought to be closed matters (e.g., the notion that a model can induce significantly more jaywalking than would otherwise be expected). My use of a more "sociological" theory than has previously been used in similar studies may open new lines of inquiry into which perspectives are appropriate for such research. With more research along these lines, perhaps the questions raised here and in the previous studies will, in time, be more conclusively answered.

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