THE EFFECT OF SPATIAL LAYOUT AND SOCIAL SIMILARITY ON URBAN NEIGHBOURING

by

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ABSTRACT

This thesis presents a detailed study of the effect of functional distance and social similarity on the greetings and visits between contiguous neighbours. Functional distance is predicted to have an inverse relation with greetings while social similarity is predicted to have a direct relation with visiting between contiguous neighbours. In accordance with previous researchers, functional distance is predicted to have an inverse relation with visiting only for socially similar, but not for socially dissimilar, neighbours.

Women, whose single family houses are located throughout metropolitan Vancouver, were interviewed in the summer months. Similarity in six characteristics, which were employed separately, in specific combinations, and all together, was determined for each respondent-contiguous neighbour pair. This pair was the unit of analysis. Somers' d was used to test the direction and strength of the relationships. A calculation of Goodman and Kruskal's gamma substantiated the deductions which were based on Somers' d values.

It was found that these contiguous neighbours tend not to have any form of contact with each other. The functional distance between neighbour pairs was found, as predicted, to be consistently negatively related to greetings while their similarity was consistently positively related to visiting. Functional distance was negatively, and more strongly, related to casual visiting for similar rather than dissimilar
pairs, but the strength of its association with planned visiting was the same regardless of similarity.

Some limitations of this research are outlined with suggestions for improvements in future endeavours in this area.
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CHAPTER 1
INTRODUCTION

Urban dwellers interact on an informal level with four main categories of people. These are their co-workers; their friends; their relatives and their neighbours. In studying the patterns of life of people in cities, many sociologists have, in the past, concentrated on one or more of the above categories. Their efforts may, in general, be divided into two main approaches. By employing statistical methods, they have studied the gross interaction patterns of urban dwellers. At the other extreme, they have investigated a relatively small group of people intensively. The first one of these approaches suffers from an obvious shortcoming. By attempting to analyze the gross living patterns of so diverse and complex a group of people as city dwellers, a large proportion of the important details are masked by the rather arbitrary systematization of data. The latter approach suffers from an equally obvious drawback. The study of a relatively small group of people, though intrinsically interesting and perhaps informative, cannot adequately serve as the basis required for broader generalizations. It is not surprising then, that neither of these methods has resulted in any significant progress towards an understanding of, or an explanation for, the informal social relations of the urban resident.

If it were possible to combine the advantages of both these methods of analysis by selecting a sample set which was large and diverse enough to be truly representative of the city, and analyze it in
detail, then a truly significant advancement in this field would surely result. The difficulties involved in obtaining such a sample set, in questioning the people, in coding the data, and in analyzing all the four categories of relationships mentioned above, are clear and need no further elaboration here. One strategy for reducing these problems would be to concentrate primarily on one of these relationships initially. This study would provide a useful and significant basis for generalized statements and would simultaneously provide a basis for a similar study of the remaining three at a later stage.

Accordingly, this study has concentrated upon the relationship of the urban dweller with his neighbour network. This network is unique in that it includes not only a definition of a social relationship between people but also embodies the concept of spatial residential contiguity. Consequently, an investigation of the interaction between neighbours involves both spatial and social components. These two factors may operate either separately or in particular combinations to affect the interactions of the neighbours. Furthermore, each factor may influence some types of contact but not others. The statement of the specific problem with which this research is concerned follows.

**STATEMENT OF THE PROBLEM**

This study addresses itself to three questions arising from statements made or omitted in the pertinent neighbour literature. First, is proximity of residence a sufficient reason or impetus for neighbours to have social contact with each other? The city has been charged with
being an impersonal place in which to live. A social relationship between neighbours would be one mechanism by which this social isolation could be eased. On the other hand, it may be that neighbours prefer to remain socially isolated from those who are physically close.

Secondly, are the spatial and social components selective as to the type of contact they affect? The spatial factors may be important in determining the occurrence of certain contact forms but not others. The same may apply to social factors. Contact has been separated into greeting and visiting in order to examine this possible selective effect. Prior researchers do not report this division and thus cannot detail the specificity, if any, of the effects of social and spatial factors on the contact between neighbours.

Thirdly, do the spatial components influence the direction of visiting and friendship only between those neighbours who are socially similar? Previous research has indicated that the significant aspect of the social factors associated with contact of neighbours is the social similarity between the neighbours. Investigations demonstrating that the spatial components affect visiting have also been conducted among neighbours who were socially similar. By utilizing both socially similar and socially dissimilar neighbours, this claim of prior researchers could be put to a more complete test.

THEORETICAL FRAMEWORK

Neighbours and Neighbouring

Fruitful research endeavours in every field of science necessarily rely on clear, conceptual distinctions between seemingly similar
terms. Throughout the literature the terms 'neighbour' and 'neighbouring' appear to have been used ambiguously, or with no clear and constant definitions. For example, researchers have included varying numbers of people under the term 'neighbour' ranging from those people residing in a specific, tightly delimited geographical locale (Caplow and Forman, 1950; Kuper, 1953) to those people who are defined as neighbours by the respondent in the study (Lee, 1968). Also, various modes of contact have been referred to as 'neighbouring' -- from a casual greeting, to formal visiting. This situation has not been conducive to the accumulation of facts and the consequent advancement of knowledge in the field.

Recently, Suzanne Keller (1968) has attempted to alleviate some of the confusion by distinguishing between 'neighbour' and the 'activity of neighbours'. She has proposed specific points of reference for each. Regarding the former, Keller (1968: 12) has written:

There is, first, the neighbor as a special role implying a particular kind of social attitude toward others to be distinguished from the role of friend and of relative with which it may at times merge, as when relatives may be living next door or when neighbors become friends.

This definition of 'neighbour' as an unique role relationship between people is still vague and could lead to varying interpretations and operationalizations. The definition which will be utilized here deviates from Keller's by incorporating the ordinary, everyday, lay usage of the term. Neighbours are defined by means of a geographical, instead of a social, relationship to each other.

**Definition:** Neighbours are people living in dwelling units which are geographically contiguous to each other.
This restricts the focus to the micro-environment of immediately adjacent dwelling units while at the same time consistently and readily defining 'neighbour'. Most researchers agree with this definition of 'neighbour' although many include other people as well. There is no doubt that two people residing in contiguous dwellings are neighbours.

Whether or not there is a social relationship between the two people is not implied in the definition of 'neighbour'. However, Kuper (1953) has found that active neighbour relationships were limited to those in the immediate proximity -- side neighbours and other neighbours on the same side of the street. Gans (1967: 281) concluded that, "the socially most significant unit is the subblock, the sector of adjacent houses facing each other on the street, where most neighbor visiting and mutual help takes place." Caplow, Stryker and Wallace (1964) have pointed out that sociological studies suggest that the greatest intensity of neighbouring relationships occurs amongst people who are living in the closest dwelling units and that this intensity declines with an increase in distance between the houses. Previous research shows viable neighbour relationships to exist between people who qualify as neighbours by the above definition.

Regarding the interaction of neighbours, Keller (1968: 12) has claimed that various diverse activities are associated with the role of neighbour, ranging from "...highly formalized and regular neighborly rituals to sporadic, informal, and casual contacts." In keeping with Keller's point of reference, social contact will be considered to range from a casual greeting to an informal or formal visit. A concern for
two aspects is indicated -- the occurrence or non-occurrence of a contact and the type of contact between people who are defined as neighbours.

Together the definition of 'neighbour' and the delineation of social contact provide conceptual clarity and a precise focus from which to proceed. The former locates the people who are the subjects of this research while the latter helps to establish if there is a social relationship between them.

Distance Between Dwelling Units

All social interactions involve people operating in, and separated by, physical spaces. The extent of separation of contiguous dwelling units, and hence neighbours, from each other is highly variable (Michelson, 1970). Two dwelling units may be situated visually and/or physically close to, or far from, each other. Since neighbours are spatially contiguous, the concept and role of space is central to any analysis of their interaction.

Michelson (1970) has delimited three dimensions of the distance which could separate dwelling units. The traditional usage of distance is 'physical distance' -- the separation between two points according to a standard linear measure. The 'physical distance' between two dwelling units can vary from a few feet to several miles. However, two identical physical distances may represent different barriers due to the time required to overcome them. Transportation is a factor here. Facilities available to both the general public and the individual are
significant. A second relevant type of distance therefore, is 'accessibility' which may be measured continuously in terms of elapsed time. The effect of distance can also be created by certain manipulations of the environment which create the illusion of distance. This, he has termed 'manipulated distance' and may be achieved by the planting of trees, the erection of fences or the positioning of footpaths. The latter has been labelled 'functional distance' by Festinger, Schachter and Back (1950).

Since this research focuses on the micro-environmental level of contiguous dwelling units, two of Michelson's dimensions of distance -- physical and accessible -- are obviated. These distances become operative only in larger geographical spaces. The 'physical distance' will not significantly vary at the micro-level, and neither will transportation facilities be a major concern. 'Functional distance' could, however, vary greatly at this level. It is defined as follows.

**Definition:** The functional distance between neighbours is created by the relationship of their dwelling units, determined by the pattern of streets and other vehicle- and foot-passages in the immediate external environment of the dwelling units. The functional distance between two neighbours remains relatively stable over time. However, among several pairs of neighbours it may vary.

**Spatial Layout and Social Contact**

In all probability, the spatial relation between dwelling units does not have the same impact on every form of contact between neighbours.
It has been claimed that spatial features are instrumental in the initiation of brief contacts between neighbours but that something more is required to maintain a social relationship. To elaborate this statement, the effect of functional distance on various types of contact has been explored.

**Greeting and Visiting**

Social contact ranges from brief greetings to lengthy visits. Keller (1968) has referred to this dimension as the intensity of the relationship between neighbours and has described this intensity as the degree of intimacy between neighbours ranging from a knowledge of neighbours' names to intimate personal relations. The different forms of contact represent relationships of varying intensity. Several researchers have utilized scales to measure the intensity of the contact (Wallin, 1953; Caplow et al., 1964). Such scales have not been developed in this research but intensity has been gauged by whether the neighbours greet or visit each other. The latter indicates a more intense relation between any two neighbours than the former. A visit involves talking at length, or eating, or drinking together while a greeting is a quick encounter. Neighbours choose to visit each other but a conscious choice may not be involved in the occurrence of a greeting.

**Spatial Layout and Greeting**

In all likelihood, people do not greet all their neighbours equally. The occasion for these less intense contacts will arise between
certain neighbours more than between others. Several researchers have claimed that the first contacts between neighbours are greetings and that spatial propinquity plays an important role in controlling the direction of these initial brief contacts.

For Levittown, Gans (1967: 281) has argued that "...propinquity is a factor while people get to know each other, after which compatibility becomes the major criterion...." He observed that the propinquity of neighbours, due to the spatial layout of their houses, influenced the initial encounters between them. However, propinquity acted alone only in the first, greeting stages of contact. During the first three months of occupancy of eight English private housing estates, Carey and Mapes (1972: 52) concluded that "since many of the visits were initiated through casual contacts, they tended to involve people who lived close to each other." For their sample, the geographical propinquity of houses permitted the women to inadvertently meet each other during the course of their daily activities. These unplanned brief contacts provided the neighbours with the opportunity to invite each other to their homes for a visit. The greetings occurred within small geographical areas and laid the foundation for more intense visiting. The initial casual greetings between the neighbours were directed or influenced by the spatial configurations of the housing estates.

Earlier, Festinger, Schachter and Back (1950) had postulated and found a similar pattern. According to them, as neighbours do not actively seek out each other; initial, brief, passive contacts are neces-
sary before they interact more intensely. These greetings simply happen. The individuals do not go out of their way to make the contact nor do they exert positive efforts in that direction. These passive contacts are determined by the required paths followed in entering or leaving one's home for any purpose. These specific required paths are determined by the physical structure of the area. Thus, the spatial relation between dwelling units, in particular propinquity, has been shown by all of these researchers to exert an influence on which neighbours have a greeting during the first few months of occupancy of their houses.

Previous investigators have not examined the occurrence of greetings between neighbours after they have settled into their dwelling units. However, greetings probably occur between neighbours who have resided in their dwelling units for some length of time. These greetings should occur since the spatial opportunities for them will be relatively unchanged through time. The functional distance between the units will still have the same effect. Those neighbours who greet each other live in dwelling units in which the functional distance between the units places them in a specific spatial relation.

In order for two people to greet each other, they must have the opportunity to come together in the same space. This is necessary to provide them with the chance to speak to each other even if it is only for a few minutes. The spatial relation between the dwelling units of the neighbours either allows or prevents their entry into the same space. For a greeting, there must also be a mutual underlying consensus
or understanding between the neighbours that they should say something to each other when they come together spatially.

The first hypothesis refers to greetings between neighbours who are settled in their dwelling units with the provision that the following assumption is true. This hypothesis is concerned with whether or not the functional distance alone has any effect on greetings.

**Assumption:** There is a mutual consensus between neighbours to speak to each other when they meet.

**Hypothesis (1):** As the functional distance between neighbours decreases, the proportion of neighbours who greet each other increases.

The functional distance between any two neighbours either provides or does not provide them with the opportunity to greet each other. The siting features of dwelling units are such that the movements of the occupants are pre-set by the position of roadways, sidewalks, and other such thoroughfares. Various different types of barriers may be envisioned. Each one of these is a unique part of functional distance. For example, railways and busy highways between dwelling units may block greeting encounters between the residents to a certain extent because of the latent dangers involved in crossing them. By their mere presence these so-called passive barriers exert an influence upon greetings. In contrast, if the same physical distance between two dwelling units was spanned, instead, by a lawn, the danger involved in crossing
this 'barrier' would be minimal and greeting encounters may be expected. This conclusion would of course immediately be somewhat modified if the lawn was the territory of a vicious guard dog! These spatial features, by virtue of their mere existence, affect the general flow or circulation of the neighbours around the immediate external environs of their dwelling units. This, in turn, affects whether or not they have the opportunity for inadvertent contact. For a greeting between neighbours, a mutual encounter, influenced by the relative position of their dwelling units, is necessary. If the functional distance is such as to permit these encounters, greetings are likely to occur.

Spatial Layout and Visiting

The spatial relation of dwelling units also has an effect on more intense contacts than greetings: namely visiting. This case however, is more complex.

While studying the processes of group formation, communication and the operation of group standards, Festinger, Schachter and Back (1950) discovered that the spatial relation of the houses of their subjects influenced contacts. They examined the formation of friendships among wives of veteran engineering students at M.I.T. These women lived in single and detached houses (Westgate) or in two storey apartment buildings (Westgate West). They were asked to name the three people in either housing project with whom they had the greatest amount of social contact. These researchers (1950: 161) concluded that:
The closer together a number of people live, and the greater the extent to which functional proximity factors cause contacts among these people, the greater the probability of friendships forming....

In the two housing projects, the 'functional proximity factors' were the position of the footpaths and stairways in Westgate and Westgate West respectively. These features determined whether the residents encountered one another or not as they entered and left their dwelling units.

Independently, Caplow and Forman (1950) examined the family interactions of fifty married veteran students with children at University Village in Minnesota. These veterans lived in a self-contained project of semi-detached houses. With the aid of their 'neighborhood interaction scale', Caplow and Forman (1950: 366) found interaction "...organizes itself with almost molecular simplicity in terms of the spatial pattern of the community." Again, functional factors were operative. The position of front doors and the consequent use of particular sidewalks were important here.

These two studies alerted other researchers to the possible effect of the spatial configuration of dwelling units on neighbouring. Merton (1951: 205) concluded that "...sheer propinquity played a major part in determining the patterns of personal association" for the residents of public housing in Craftown, New Jersey. The orientation of front doors was significant once more. Whyte (1956) found that mobile middle class executives of Park Forest were influenced in neighbour relations by the functional relation between their single family homes. The same friendship patterns were observed at several times despite the
changeover in residents. Friendships formed across and along the street as well as between those with adjacent driveways. Busy streets acted as barriers to child interaction and this was transferred to adults. In Australia, Timms' (1971) middle class housewife sample made friends with neighbours whose houses were physically close. Those women who were physically isolated tended also to be socially isolated. Two-thirds of all the friendships in the housing estate were between women residing on the same street. In England, Carey and Mapes (1972: 89) have expressed a similar finding for their housewives: "As well as influencing relationship formation, proximity also affects the frequency of the visiting with those relationships." The proximity referred to was the distance along the conventional route joining the relevant dwellings. It influenced not only who made friends with whom but also the number of times these friends visited. The less the distance, the greater the frequency of visiting between friends. Recently, Athanasiou and Yoshioka (1973) reported that the percentage of all neighbours who are high-intensity friends (those who meet almost every day and enjoy being with each other) varies inversely with the distance between houses. Their sample was young wives with children living in a middle class housing development near Ann Arbor, Michigan. Neighbours who are best friends live closer to each other than those who have a less intense friendship.

These results suggest that the spatial relation of dwelling units, in particular the functional relation, does affect the pattern of
visiting for the residents. However, this conclusion requires qualification due to the social characteristics of the populations used in these studies. Kuper (1953: 27) has written:

The siting factors, with their planned and unplanned consequences, only provide a potential base for neighbour relations. There is no simple mechanical determination by the physical environment. The extent to which the awareness of neighbours will develop into active social relationships depends on the characteristics of the residents, ... and their general compatibility.

The spatial layout alone is not sufficient to influence visiting, but rather facilitates or limits the effects of social factors. Visiting requires something more than a particular spatial relation between neighbours.

Spatial Layout and Social Similarity

Several authors have argued that the spatial relation of neighbours' dwelling units influences which neighbours visit each other only if the neighbours are socially similar. Each study which demonstrated space to have an influence on visiting was conducted among people of similar social characteristics. This applies to the students of Festinger and Caplow, Whyte's executives and Timms' housewives. Festinger, Schachter and Back (1950: 163) cautioned about undue emphasis on the effect of propinquity:

...where the community is heterogeneous, one would expect the ecological factors to have considerably less weight than they do in communities where there is a high degree of homogeneity and common interests among the residents.

The spatial factors contribute less to visiting between dissimilar neighbours than to visiting between neighbours who are socially similar.
Having reviewed the literature, Michelson (1970: 188) has made the following provision:

Two conditions thus have been isolated throughout the literature under which proximity becomes a factor in friendship: the first is homogeneity (or at least perceived homogeneity) and the second is the need for mutual aid.

Suzanne Keller (1968: 84) has also addressed herself to this question and concluded:

Thus physical design as such -- in the sense of arranging dwellings and facilities so as to encourage personal encounters followed by more enduring personal ties -- does not seem to play an independent role in neighbouring. It is significant primarily where social and personal compatibility has prepared the ground for it.

For these two reviewers, space becomes a factor in visiting only after the social groundwork, in the form of compatibility, has been laid. Carey and Mapes (1972) examined socially heterogeneous private housing developments only to find high rates of visiting between socially similar housewives who were fortuitously propinquitous. Proximity of dwellings was not enough to sustain visiting between socially dissimilar women. However, proximity did reinforce similarity as an instigator and sustainer of social activity. Similarity was the crucial factor while proximity served to facilitate the visiting.

These writers have indicated that the spatial arrangement of dwelling units between socially dissimilar neighbours does not have as strong an effect on visiting as it does for socially similar ones. In the latter case, there is no need for a selection of visiting partners on the basis of social characteristics but merely visiting with those similar others who are spatially available.
Throughout this discussion, it is assumed that social similarity affords the underlying compatibility which is necessary for visiting. First, social similarity is required and only then are spatial features effective for visiting. Thus, three problems have been presented.

1. Does social similarity between neighbours furnish the compatibility necessary for them to visit?

2. What are the social characteristics that must be similar between neighbours for them to visit?

3. Does the spatial relation between neighbours influence visiting between those who are not socially similar as much as those who are socially similar?

The following sections provide the guidelines for answering these questions. Hypotheses form the basis of empirical tests of previous conclusions in the literature regarding both the social similarity, and the spatial relation between neighbours; and their visiting.

**Social Similarity**

Gans (1961) has claimed that the need for homogeneity and compatibility was greatest for immediately adjacent neighbours. These people are forced to live together in a relatively small geographical space and different points of view could lead to unpleasant conflict and tension between the residents. Morris and Mogey (1965: 124) in a review of factors influencing neighbouring also concluded that "...homogeneity is likely to be most important in the immediate neighbourhood where relationships are unavoidable, face-to-face, and formally equal." These
adjacent or contiguous people are the neighbours for this research. That they must be socially similar before they visit each other is testable.

**Hypothesis (2):** Similar neighbours are more likely to visit each other than dissimilar neighbours.

Gans (1961: 137) has stated that "little is known about what characteristics must be shared before people feel themselves to be compatible with others." It may be the case that the two neighbours must be similar in one specific characteristic or in a particular combination of characteristics. This has yet to be investigated in samples which provide the opportunity to empirically examine several characteristics, each with a wide range of values.

Most previous researchers have not manipulated, experimentally or statistically, the social characteristics of their subjects to determine the effect of similarity of characteristics; such as age, education, sex, life cycle, employment or origin; on visiting. It was simply stated that the populations of each study were 'homogeneous' on several characteristics. Generally, there was not a detailed comparison of the characteristics of the neighbours who visited and those who did not visit. As a rule, each of the samples lived in planned housing areas and were 'homogeneous' with respect to marital status, age, life-cycle stage, education and class. However, Carey and Mapes (1972) did examine the similarity of the residents of their eight housing estates systematically.
After comparing each housewife to every other housewife on the estate for several background characteristics they found that there was a strong tendency for visiting relationships to be found between housewives who were of a similar age or who had children in the same age group. In an analogous pair-comparison analysis, Athanasiou and Yoshioka (1973) found friendships between women to be based on similarities in life cycle (age, marital status, number and age of children) regardless of distance between dwelling units but status (occupation, education, income) and racial similarities to be significant for non-adjacent rather than adjacent friendship formations. These two groups of investigators have examined the similarity of the characteristics between the people who are actually engaged in the visiting.

Similarities in sex, age, stage in life cycle, country of birth, education and employment, are conditions of common interests, experiences, and modes of understanding. They are conducive, it is argued here, to compatibility. These six characteristics are utilized to determine similarity for this research.

Social similarity has not been consistently defined nor operationalized. The social characteristics examined may be employed either individually or in groups in order to establish whether the people are similar or not similar. Carey and Mapes (1972), using the background information of their housewives, compared two characteristics together as well as one trait for each pair while Athanasiou and Yoshioka (1973) used one trait alone. The procedure for this research is to begin by
comparing one characteristic at a time for each neighbour pair and to proceed subsequently with particular combinations of characteristics. The number of similar characteristics is also reported. If two neighbours are similar in more than one characteristic, they are probably more compatible than if they are similar in only one characteristic. Thus, similarity between neighbours is determined according to the six social characteristics listed above, individually and in various combinations.

**Spatial Effects on Visiting Between Socially Similar Neighbours**

Researchers and reviewers have both postulated a sequence of events for the roles that space and similarity play in visiting. Once social similarity between neighbours produces the compatibility necessary for visiting, the spatial layout can then influence which socially similar neighbours visit. The third hypothesis rests upon the precedent of previous research.

**Hypothesis (3):** If the neighbours are similar; as the functional distance between neighbours decreases, the proportion of neighbours who visit each other increases.

If the neighbours are not similar; they probably do not visit each other and functional distance makes little difference.

Among those neighbours who are similar the functional distance places some of them in contact with each other more often than with others.
Indeed, some similar neighbours may never meet due to the spatial relation between their dwelling units. However, from the contacts between similar neighbours, arising from the functional relation of the units, visiting is likely to emerge. Functional proximity between dwelling units allows similar neighbours to know the characteristics of each other, to discover that they are compatible because they are similar, and to invite each other for a visit. In this manner, the functional distance affects which similar neighbours visit.

For the third hypothesis, both the social characteristics used for neighbour similarity and the method of combination of these characteristics are the same as for hypothesis (2). Hypotheses (2) and (3) test in detail the relative roles of social similarity and functional distance between neighbours for their visiting. The empirical results of this research will either corroborate or help to refute conclusions based on previous work in the field.

SUMMARY

Neighbours are restricted to people living in contiguous dwelling units. Any two adults are socially either similar or not similar, and are separated from each other by the functional distance between their dwelling units. Whether they greet or visit each other is influenced by their social and spatial relationship to each other. The three hypotheses, represented below, state the manner in which these independent variables are expected to affect social contact between neighbours.
Functional Distance $\rightarrow$ Greeting

Social Similarity $\rightarrow$ Visiting

Functional Distance if socially similar $\rightarrow$ Visiting

These predictions are examined utilizing the methods described in Chapter 2.
REFERENCES

Athanasiou, Robert, and Gary A. Yoshioka

Caplow, Theodore, and Robert Forman

Caplow, Theodore, Sheldon Stryker, and Samuel E. Wallace

Carey, Lynnette, and Roy Mapes

Festinger, Leon, Stanley Schachter and Kurt Back

Gans, Herbert J.

Gans, Herbert J.

Keller, Suzanne

Kuper, Leo

Lee, Terrance

Merton, Robert K.
Michelson, William

Morris, R.N., and John Mogey

Timms, Duncan

Wallin, Paul

Whyte, William H., Jr.
CHAPTER 2
METHODOLOGY

In any study of this nature the decision-making processes involved in the choice of a sample set and the statistical methods by which it is evaluated and analyzed are of central importance. Indeed, in some cases false and erroneous conclusions may arise out of a frivolous choice in any of these areas. In this chapter these areas are described in order to facilitate a proper evaluation of the data which follow. In order that the theoretical concepts which have been delineated in the hypotheses may be examined it is necessary to operationalize them. In summary then, this chapter details the choice of the respondents in this study as well as the questions which they were asked. The operationalization of the concepts in the hypotheses is also described and the statistical methods employed in the analysis are outlined.

THE SAMPLE
The Sampling Frame

The hypotheses are tested by means of information collected as part of a broader study with slightly different purposes. A brief description of the sampling techniques of this larger survey research is necessary in order to clarify the method by which the present sample was chosen. The larger study was designed to investigate the nature of the
contextual effects that urban socio-ecological environments have upon the behaviour of their residents. For this reason, the composition of these environments were systematically controlled. The sample of respondents was selected using a multi-stage, purposively stratified random sampling design (Kish, 1965). The three stages used in this selection are described below. The population base was metropolitan Vancouver, Canada.

The first stage involved the choice of eight areas varying in both socio-economic status and life cycle stage. These were designated as appropriate geographical spaces to represent the social diversity required. The 'Occupational Class Scale' of B.R. Blishen (1968) was used as the basis for assigning high, medium, or low socio-economic status to each area. Three categories of family life cycle were also assigned -- young, middle age, and mature. If all combinations of the two variables are represented, nine sampling areas must result. However, no area in Vancouver with both high socio-economic status and young family life cycle could be found. The eight areas were obtained by the methods outlined by Gray (1971: 6-9) and detailed by Meis and Scheu (1972). They are physically separated from each other and are distributed throughout the metropolitan region. During the second stage, all the streets and households within each area were enumerated from the 1970 City Directory of Metropolitan Vancouver. Households were then selected randomly from each of the eight areas. Finally, only those households consisting of at least one married couple with the husband and/or wife currently employed full-time were eligible for the
sample. The name of the head of the household as well as the household employment situation were ascertained from the City Directory. Both the husband and wife were interviewed. The sample is not representative of the population of metropolitan Vancouver as a whole because only married couples and employed persons residing in only eight specific geographical areas were selected.

The Present Sample

From this larger sampling frame, a subsample was selected consisting of 217 married women living in single family dwelling units. These formed the basis of the present study. Women were chosen because they are largely responsible for socializing with others who live close to the dwelling unit. If a woman is a housewife, she is more confined to her home and is more dependent upon this space for social companionship. Gans (1961: 137) has stated that "women generally find their female friends nearby, especially if they are mothers and are restricted in their movements". Women have been chosen as the respondents in most previous studies about neighbours. As a result, it is possible to compare the present findings with former ones and analyze the techniques used classifying them as similar to, or divergent from, the ones used here. All the women of the sample live in single family houses. Gans (1961) has also written that most neighbour contacts occur between occupants of such dwelling units. Great variations in spatial separators between single family units are possible ranging from a lawn to a high fence or a busy highway. This diversity affords an opportunity for a
more complete test of the hypotheses. Also, single family houses are a common mode of shelter in both the urban and suburban context.

The women were interviewed in July and August of 1971. Thus, the behavioural information applies to the summer months only. Interaction, especially casual contacts, probably follows different patterns in warm and cold weather. In the rain and cold of winter people are not likely to spend much time outside in their gardens or entering and leaving their houses. But the summer warmth is conducive to being outside and inadvertent contacts are more probable in these circumstances. Michelson (1971: 1081) has documented this with a longitudinal study in Toronto: "...warmer weather does put neighbors together more frequently in absolute terms". However, by collecting all of the data for this study within a two month period the possible effect of varying seasonal conditions on the contact between neighbours has been eliminated. Summer months were chosen with the expectation that they would exhibit a larger magnitude of social contact than would be observed by an analogous study in the winter.

Several authors have indicated that the contacts between neighbours as they settle into their houses are more frequent and less selective than subsequent contacts (Gans, 1967; Keller, 1968; Schorr, 1970). The initial contacts are not representative of later interaction. After a six month residency, all of the initial contacts have probably occurred. Women in the initial stages of contact are not included in the sample. All the women in the sample had lived in their houses at least six months.
Thus, the interaction which was investigated is a relatively stable one.

The sample then, is 217 married women who were interviewed in the summer and who had been living in their single houses for six months or more. The social characteristics of these women vary to a certain extent. A detailed breakdown of their characteristics appears in Appendix A.

The women live in seven of the eight geographically separated areas of the larger study. The group of respondents belonging to the eighth geographical area did not meet all of the requirements for selecting the subsample. The sample is not randomly drawn from metropolitan Vancouver but from specific delimited areas within the city. The women are not considered to be associated with the geographical area but are representative of women with their particular social characteristics. The mean age of the women is 45 years with a range from 25 to 75 years. Most of the sample has at least one child (82 percent) with the largest percentage of the women (32 percent) with their youngest child between the ages of 6 and 12 years. Few are young with no child (2 percent) while slightly more are older women with no child at home (17 percent). The majority (75 percent) were born in North America and attended high school (53 percent) as the last type of full-time schooling. University was attended by 20 percent of the sample. Most of the women are housewives (71 percent). The paid occupation with the greatest number of respondents is the clerical, sales and technical category (16 percent). Most of the husbands of the women are white-collar workers with 52 percent
in middle professional occupations. The women do not plan to move from their houses (72 percent) and 39 percent have lived in their present houses for 11 years or more. A comparable 32 percent has lived in their house from one to five years. In summary, the women are high school educated, North American, middle-aged mothers with no paid employment whose husbands have white-collar jobs.

THE INTERVIEW

Each eligible respondent received by mail an introductory letter stating the purposes of the study. Following this, a trained interviewer made an appointment for the interview at a future date. The women respondents were interviewed by women. Many of the topics encompassed by the large structured interview schedule have no bearing on this research. The following discussion therefore, highlights the pertinent sections of the total interview.

Each woman was requested to provide information on the social characteristics of herself and her contiguous neighbours. In order to avoid any ambiguity on the part of the respondent as to whom her contiguous neighbours were, the contiguous dwelling units were located and numbered on a land use map of her locale by the interviewer. Neighbours were limited to adults living in dwelling units beside, in front of, and behind the unit of the respondent. These houses form a 'circle' around the respondent's house. Three examples of different street layouts, and the choice of which dwelling units are contiguous to a
specific unit, are illustrated in Appendix B. Most previous studies have chosen one housing area and therefore one street plan. But because the people in this sample reside in seven different geographical areas of Vancouver, the street patterns are variable. As the maps demonstrate, the number of contiguous dwelling units, and the place where social contact with neighbours occurs, is unique for each respondent but is consistently defined for all respondents.

Each respondent related the following characteristics about herself and, where possible, her adult neighbours: age, age of children at home, place of origin, education, occupation, and length of residence. She indicated whether or not she knew the names of her neighbours and whether she had contact with each of them in the past week. The details (type and frequency) of the contact, if any, were requested. The occupation of her husband was also obtained. A copy of the actual questions used to elicit the information about the contiguous neighbours and the format of the page used to record that information is in Appendix C.

To ascertain the spatial relation of the respondent's house and each contiguous unit, the interviewer completed a check list of the physical features between the dwelling units of the respondent and her contiguous neighbours. An example of this check list is found in Appendix C as well.

After the interview, the data were prepared for input into an IBM 360/67 computer for routine cleaning and analysis. Each contiguous
neighbour of each respondent was assigned an unique identification number. In this manner, a contiguous neighbour was unambiguously identified with the appropriate respondent. The social characteristics of each neighbour were coded separately according to detailed coding instructions. An error check of ten percent of the questionnaires revealed a coding error rate of approximately 0.24 percent. Having put the data onto computer magnetic tape, they were subjected to an extensive cleaning process including a detailed wild code and consistency check. If errors were located, the interview was consulted and the appropriate change made. In this way, most data errors were eliminated.

The social characteristics of each respondent were coded in several different sections of the larger study. The information required for this research was merged from these sections to the appropriate contiguous neighbour information with the aid of a computer programme in the OSIRIS II statistical package. Thus, each respondent's characteristics were attached to each of her contiguous neighbour's information.

Following a thorough check, the data concerning the spatial relation of the dwelling units were also merged with the neighbour information. It was important to account for all of the contiguous dwelling units and to label only the residents of those which were contiguous as neighbours. All the maps were scrutinized to ensure that this was rigidly adhered to. Dwelling units contiguous to the house of a respondent but vacant at the time of the interview were not included as contiguous units because no one, with whom the respondent could possibly have a contact, resided in them.
Again, the type and frequency of contact between the respondent and each of her neighbours were merged with the other data of each neighbour. As a result of the computer merging, the social characteristics of the neighbour, the corresponding social information of the respondent, the details of the spatial relation of the two dwelling units and a record of the type and frequency of contact were assembled for each contiguous neighbour.

UNIT OF ANALYSIS

Research in this area has, in the past, been conducted largely in the following way. The researcher administers a questionnaire, designed to examine interaction, to a number of people. The data are collected, codified, and analyzed with very little or no consideration to the person or persons with whom the subject has interacted. For example, interaction may be correlated with social class by considering the social class of the respondent alone without giving any thought to that of the person with whom the respondent has interacted. It would appear that an analysis which centres on a comparison of such social characteristics between the respondent and the person with whom interaction has occurred would result in a better understanding of the phenomenon. Conclusions from such an analysis would for example state that a similarity between two people with respect to a certain characteristic facilitates interaction; rather than stating that people with a 'high level' of the characteristic interact. This research does not concentrate on the woman
respondent and the effect which her characteristics alone have on the interaction. In order to get a better understanding of the factors influencing the interaction between a woman and her neighbour, both of these parties have been compared with regard to social characteristics. Since the spatial layout resulting from the position of the respondent's dwelling unit in relation to that of her neighbour is no less important, a priori, it has also been considered.

In summary, the unit of analysis is the pair, consisting of the respondent and each of her contiguous neighbours. This unit of analysis has been termed 'relational' by Lazarsfeld and Menzel (1961). It is the social and/or spatial attributes of both adults which is considered to influence the occurrence of greetings and visits between them.

The 217 married women who comprise the sample have a total of 2,511 contiguous neighbours. The mean number of contiguous neighbours per respondent is 12 with a minimum of 3 and a maximum of 18. In the analysis, 2,511 pair comparisons are executed to determine the social similarity between each woman and each of her neighbours. To be able to make these social comparisons, the same characteristics obtained for the sample were recorded for every contiguous neighbour.

At the time when the respondents were interviewed, each of the 2,511 contiguous neighbours had been living in their houses for at least six months. This again eliminates the possibility that any of the interactions used in the analysis were initial contacts between
neighbours. The percentage of contiguous neighbours in any of the eight geographical sampling areas corresponds to the percentage of the respondents from that geographical area. The details of the social characteristics of the contiguous neighbours are presented in Appendix D.

Forty-five percent of the respondents' neighbours are women; 43 percent are men; and there was no information on the neighbours' sex in 12 percent of the neighbour pairs. For each characteristic, there is a category labelled 'respondent does not know'. The percentage of contiguous neighbours appearing in this category is often quite high and results from the manner in which this information was collected. Each respondent was required to provide the characteristics of her neighbours but she did not always know them. The social characteristics which the respondents did not know, in descending order, are education (69 percent), country of birth (43 percent), employment and occupation (28 percent), age (26 percent), length of residence (22 percent), number of children and stage in the life cycle (16 percent). Education and country of birth are not highly visible attributes but the number, and age of children are. These latter characteristics are probably more significant to the women respondents who are primarily mothers and housewives.

A large percentage (37 percent) of the contiguous neighbours are between the age of 30 and 49 years. Only 23 percent do not have a child. Two percent of these are adults under 40 years old while the other 21 percent are older and have no children at home. Among neighbours with children, the largest percentage (20 percent) have a child
who is between 6 and 12 years old. Thirty-five percent of the neighbours are from North America and 11 percent have reached university. Thirty-six percent of the neighbours, both male and female, are employed, with a fairly even distribution of occupational types, ranging from high executives to semi- and un-skilled manual workers. Among male neighbours, clerical and unskilled manual workers are slightly under-represented. However, the largest portion of all the female neighbours are housewives (48 percent). Thirty percent of the neighbours have resided in their dwellings for five years or less while a comparable 25 percent have lived there for some length of time (11 years or more). In general, the contiguous neighbours are middle aged with their youngest child in elementary school.

MEASUREMENT OF THE VARIABLES

In order that they may be measured in some quantitative way, both the independent and dependent variables must be operationalized. This is accomplished by forming a correspondence between the concepts in the hypotheses and the information collected from the sample of women by the interviewer. The concepts requiring operationalization are: greeting, visiting, functional distance, and social similarity.

Greeting

"Greeting" is a short, unplanned encounter of less than six minutes between contiguous neighbours. In the week prior to the interview, seven percent of the 2,511 neighbour pairs had "greeting" encounters,
and very few greeted each other more than once (Figure 1). The greeting variable was, therefore, collapsed into two categories -- no greeting, and greeting.

Visiting

"Visiting" is a longer, more intense type of contact. It was divided into two categories.

(a) A casual visit is a conversation between neighbours which is longer than five minutes. It may also include a drink, or a cup of coffee, or a snack. No prior planning is involved. Of the 2,511 pairs, 13 percent had at least one casual visit (Figure 2).

(b) A planned visit is a pre-arranged social event such as a dinner, a party, a picnic, or a tea. One of the neighbours invites the other neighbour to participate in the event. A telephone conversation between the two neighbours is included here as well. Again, the caller invites the other person to engage in a telephone conversation. This type of contact is scarce. Of the 2,511 pairs, one percent had a telephone conversation while three percent had a visit, making the total of planned visits four percent (Figure 3).

Because the number of pairs visiting each other more than once is very low, the two variables are reduced to two categories each. Casual visits were divided into no casual visit, and casual visit. Planned visits were likewise divided into no planned visit, and planned visit.
Figure 1. Frequency of Greetings of Neighbours
Figure 2. Frequency of Casual Visits of Neighbours
Figure 3. Frequency of Planned Visits of Neighbours
Functional Distance

By definition, the functional distance between neighbours is created by the relationship of the dwelling units of the two neighbours. The street layout between the two houses determines this distance. Since each respondent lives in a single family dwelling her house may be positioned in one of four ways relative to that of her contiguous neighbour: on the same side of the same street; on different sides of the same street; on different streets with a laneway between them; or on different streets without a laneway between them. These four categories are mutually exclusive. In other words, the street pattern places any two houses in only one of the four possible relative positions. In Table I, the features between the dwelling units of the pairs as recorded in the interview schedule, the frequency distribution of each feature for the total sample, and the relative position of the two houses indicated by these factors have been tabulated.

Those features which represent the same relative positions have been joined together -- 3 and 4; 5, 6, and 7. In this manner functional distance is operationalized. Two dwelling units which had any one of features 1 to 5 inclusive, and possessed, as well, one of the features 6 or 7, were classified according to the former feature. For example, if two dwelling units had their backyards adjacent with no lane dividing them (feature 1) but had in addition a fence or flower garden between them (feature 6), they were classified as belonging to feature 1 only. No pair of dwelling units appear more than once in the table. If two
TABLE I

Functional Distance Between Contiguous Dwelling Units

<table>
<thead>
<tr>
<th>Feature</th>
<th>Frequency&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Position Indicated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Backyard adjacent - no lane&lt;sup&gt;b&lt;/sup&gt;</td>
<td>362</td>
<td>Different street-no laneway</td>
</tr>
<tr>
<td>2. Backyards adjacent - lane&lt;sup&gt;b&lt;/sup&gt;</td>
<td>384</td>
<td>Different street-laneway</td>
</tr>
<tr>
<td>3. Paved street</td>
<td>928</td>
<td>Different side of same street</td>
</tr>
<tr>
<td>4. Busy paved street or railway</td>
<td>23</td>
<td>Different side of same street</td>
</tr>
<tr>
<td>5. Lane - sideyards adjacent&lt;sup&gt;b&lt;/sup&gt;</td>
<td>98</td>
<td>Same side of same street</td>
</tr>
<tr>
<td>6. Fence or flower garden&lt;sup&gt;c&lt;/sup&gt;</td>
<td>637</td>
<td>Same side of same street</td>
</tr>
<tr>
<td>7. Yard or lawn</td>
<td>25</td>
<td>Same side of same street</td>
</tr>
</tbody>
</table>

<sup>a</sup> There are 54 respondent-contiguous neighbour pairs with no information.

<sup>b</sup> These three features were created from two variables - backyards adjacent and lane - by computer manipulation. They are mutually exclusive.

<sup>c</sup> Due to interviewer difficulties, two categories of the questionnaire were joined to form this feature. These categories are physical or symbolic barriers, low shrubs, flower garden; and sight impeding fence, wall, or hedge.
dwelling units possessed both features 6 and 7 they were classified as belonging to feature 6. Those 25 pairs of dwelling units which have been classified as belonging to feature 7, were thus divided by a yard or lawn and nothing else.

The functional distance helps to direct the possible movements of the neighbours in the micro-environment of their dwelling units. It may act as a blocking mechanism by preventing two particular adults from ever meeting or it may be such as to facilitate frequent encounters between them. The siting features create varying degrees of functional distance. The feature with the least distance probably presents little resistance to contact while the feature with the greatest distance probably makes inadvertent meeting very difficult. The functional distances between pairs of dwelling units have been categorized, in descending order, by the four street positions as follows:

- Different street - no laneway
- Different street - laneway
- Different side of same street
- Same side of same street

There are two basic divisions in this ordering. First, the dwelling units are on different streets or the same street and secondly, there are specific situations within each of these street locations. The probability that two people will use the same sidewalks and roadways is greater if their dwelling units are on the same street than if they are on different streets. Adults living on different streets do not utilize
the same facilities to move about their houses or to enter and leave their properties. The functional distance between neighbours is less when their dwelling units are on the same street than when they are on different streets. However, within the latter cases, the functional distance is decreased if a path or lane separates the dwelling units as this has the potential to allow the adults to enter the same geographical spot. There is the possibility that the neighbours both make use of this feature as they enact their daily routines. The lane is a mechanism for pedestrian as well as vehicular traffic. For dwelling units on the same street; being located on the same side of that street means sharing more sidewalks and property lines while a location on different sides of that street means having a paved road between the dwelling units which conducts traffic away from, and through the area. The paved road is probably more of a deterrent to contact if it is present than if it does not exist. Thus, for the hypotheses, pairs of neighbours who are on the same side of the street are separated by the smallest functional distance while neighbours whose houses are on different streets without a laneway between them are separated by the greatest amount of functional distance.

Social Similarity

Social similarity refers to a particular relation between the social characteristics of the respondent and her contiguous neighbour. Two adults may be similar or dissimilar in one or more social characteristics. For this research, each contiguous neighbour pair is compared
on six characteristics to ascertain whether the two adults are similar or not for each characteristic. The pair comparisons are performed for all the traits individually. No gradation of similarity has been made but each pair is either similar or dissimilar with respect to each characteristic. It was necessary to determine what would constitute 'similar' or 'not similar' for each of the characteristics. The following discussion details the cutting points for each of the six characteristics. These characteristics are utilized separately, in particular combinations, and all together in the operationalization of social similarity.

**Sex**

The woman respondent is either of the same sex as her contiguous neighbour or of the opposite sex from her neighbour. The similarity cutting points for this trait then are male-female. If the respondent-contiguous neighbour pair has the same value for this characteristic based upon the cutting points, the two adults are considered to be similar for this trait. Otherwise, they are not similar. This method of assignment of similar-not similar sex applies to all the other five variables as well. A woman shares more interests, experiences and situations with other women than with men.

**Age**

The pair is similar in age if their ages are within five years of each other. The actual ages of the respondent and contiguous neighbour are compared. If the neighbour is not more than five years younger or older
than the respondent, the pair is classified as 'similar in age'. Adults whose ages are within five years of one another are more likely to have had corresponding past experiences and to be in similar present situations than adults with larger discrepancies in age.

**Stage in Life Cycle**

In a given family, the age of the youngest child is taken to indicate the life-cycle stage for that family. This child, being the most dependent, dictates the amount of freedom that the parents have. A preschool child ties its mother to the home more than a child in school. The cutting points for similarity correspond to the age of the child as it proceeds through the school system. They are:

- No child - parent 40 years old and under
- Youngest child under 6 years old
- Youngest child 6 to 12 years old
- Youngest child 13 to 19 years old
- Youngest child 20 to 26 years old
- No child - parent over 40 years old

Pairs whose stage in the life cycle places both adults in the same category are similar. Adults similar in life-cycle stage are likely to be performing similar activities based on the demands made by their children. Two young adults with no children have more in common than either of them has with another adult who has a four year old child. Likewise, two adults with a 16 year old child have more in common than either of them has with
the adult who has the four year old. The different stages in life cycle make varying demands on, and give varying freedom to, the adults. Two adults in the same stage have similar demands and freedoms.

Country of Birth

The country of birth of the respondent and the country from which her contiguous neighbour comes are compared to ascertain whether the pair is similar. If both adults are from the same country they are similar but if they come from different countries they are not similar. Two adults from the same country have incorporated similar value-systems and are socially relaxed with each other. The subtleties of social situations are understood and delicate issues are circumvented.

Education

Each respondent and each of her contiguous neighbours are similar in education if they may both be classified under the same one of the four following categories:

- Elementary School
- High School
- Technical/Vocational
- University

There must be a one-to-one correspondence in this respect between the two adults for similarity. Otherwise, the pair is considered to be not similar. Adults who have been exposed to the same level of education have had some past experiences — both intellectual and social — in common.
This exposure to similar thoughts and worlds creates a common social ground between the two adults.

Employment

A person is either employed or not employed. A pair is similar in employment if both the respondent and her contiguous neighbour are employed or both of them are not employed. However, if one adult of the pair is employed and the other person is not employed, the pair is not similar. Pairs considered similar for this variable, whether they are both employed or both not employed, have more common interests and experiences than those who are not similar in employment. Two adults who are similar probably have the same focus of interest and spend the same amount of time in the area close to their houses.

Since a large portion of the respondents and the female contiguous neighbours are housewives, the similar employment category was refined to create another dimension — housewife. If both of the adults in a pair are housewives, they are similar for this variable. Housewives share more (type and place of work, demands, freedom) with each other than with employed persons or with those non-employed who are not housewives.

Combination of Characteristics

Adults similar in two or more of the six characteristics have more in common than those who are similar in one characteristic alone. The similarity between the former is derived from more common experiences
or situations. If a woman is similar to her neighbour in several characteristics, each trait contributes a particular type of likeness between the two adults resulting in a broader similarity. The following specific combinations of the characteristics are considered using the same cutting points as above to determine similarity in each of the characteristics. If a pair is similar in every characteristic of a combination of characteristics, the adults are considered similar in that combination. Otherwise, the pair is not similar. The combinations are:

(a) Sex, employment.
(b) Housewife, life-cycle stage.
(c) Sex, education, age.
(d) Education, age.
(e) Sex, employment, life-cycle stage, country.

These combinations have been selected using sex similarity as the basis. Two women are likely to have more in common than are a man and a woman. An attempt was also made to include all the characteristics. Combination (a) gives two adults a general similarity whereas (b) is a refinement of (a) as housewives are similarly women and not employed. Housewives with their youngest children in the same age range have very similar demands and interests made by those children. The effect of similarity in both education and age is also explored with; and without; similarity in sex (c and d respectively). It may be the case that education and age similarity are not qualified by a sexual similarity. Women who are similar in employment and life-cycle stage as well as country of birth (e)
have many experiences and common understandings with one similarity reinforcing the other. The characteristics of the sample -- married women, housewives, mothers -- have been considered in the selection of these particular five combinations.

**Total Number of Characteristics Similar**

Not only specific combinations but also the number of similar characteristics measures similarity between two adults. The amount that a given pair has in common with each other may be directly related to the number of similar characteristics which they possess. This variable is created by counting the number of characteristics which are similar for each respondent-contiguous neighbour pair. The possible number which are similar ranges from zero to six. Thus, neighbours may be similar in one specific characteristic, in particular combinations of characteristics, or in several characteristics.

By means of the preceding methods, the four concepts -- greeting, visiting, functional distance, and social similarity -- are operationalized. The hypotheses are tested employing these variables in conjunction with the statistical techniques outlined in the next section.

**ANALYSIS OF THE DATA**

The strength of the relationship between variables will be assessed by a measure of association chosen according to the form of the hypotheses and the level of measurement of the variables. The hypotheses in this research have an asymmetrical form. The measure of association should take this asymmetrical relation into account.
Both the dependent and independent variables are ordered. Neighbours do or do not have a greeting, casual visit, or planned visit. The functional distance has four ordered categories from low to high. These are: same side of same street, different side of same street, different street with a laneway, and different street without a laneway. The variables which have been used to measure similarity are also ordered.

Somers' d (1962) was selected as the most appropriate measure of association for the following reasons:

1. It is an asymmetrical measure of association designed to gauge the degree of like ordering between pairs for ordinal level data. Wilson (1970) has claimed that for the form of the hypotheses in this research it is the best ordinal measure. Somers' dyx has a value of +1 when all the ordered pairs fit the positive form (as x increases, y increases), and -1 when all the ordered pairs fit the negative form of the hypothesis (as x increases, y decreases). If an equal number of pairs fit the positive and negative form of the hypothesis, the value of dyx is 0 indicating that no association between the variables exists. Since Somers' d is asymmetrical, either x or y can be considered as the independent variable. The practice has been to use dyx when x is the independent variable and y is the dependent variable and dxy when the roles of x and y are reversed.

2. In the calculation of dyx the number of pairs tied on the dependent variable, but not the independent variable are accounted for. These cases show a lack of association between the two variables as the
independent variable, but not the dependent variable, changes. This
feature makes $\text{dyx}$ a strict test of the association.

3. It is a single index which is not restricted to $2 \times 2$
tables. In the $2 \times 2$ table, it is equivalent to the percentage difference.

4. Its size is relatively unaffected by the number of cells
in the table and is rather insensitive to the distribution of the marginals.

Both the direction and magnitude of Somers' $d$ have been con-
sidered during the analysis.

For the three dependent variables -- greeting, casual visit,
and planned visit -- the majority of the respondent-contiguous neighbours
pairs did not have a contact. This may result from having restricted
the data for this study to a period of one week. The large number of
pairs without contact may be an artifact of the data collection. Since
Somers' $d$ includes these pairs, tied on the dependent but not the inde-
pendent variable, in its calculation, the magnitude of $d$ may be unduly
suppressed. To compensate for this, the values of Goodman and Kruskal's
gamma have been presented in Appendix G for all the relationships ex-
amined in the analysis. Gamma is equivalent to Somers' $d$ except that
gamma does not take into account those pairs which are tied on the depen-
dent but not the independent variable. Gamma, like $d$, also measures the
degree of like ordering of pairs for ordinal level data and varies in
value from $-1$ to $+1$. As will be noticed, the magnitude of gamma is often
more than twice the magnitude of $d$. However, Somers' $d$ has been used as
the basis for the analysis.
The third hypothesis predicts a relationship between three variables. Thus, the effect of a third, control variable upon the basic relation between the independent and dependent variables has been systematically examined. Anderson and Zelditch (1968) have detailed a method which helps to establish the effect of the third variable. They have used the nominal measure of association $\phi$ but the logic is the same as for Somers' $d$. Basically, the value of Somers' $d$ in the partial tables is compared to the value of $d$ in the original table. The partial tables contain the relation between the independent ($X$) and the dependent ($Y$) variables when the third variable ($Z$) is held constant. The original tables, on the other hand, show the $X$-$Y$ relation when the third variable ($Z$) is not controlled for. The $d$'s of the partial tables have been first compared with each other and then with the $d$ in the original table. Three types of effects are possible.

1. The control variable $Z$ does not affect the $X$-$Y$ relation. This is reflected by the fact that the relation between $X$ and $Y$ is the same regardless of the value of $Z$. The value of $d$ in the original table is equal (or nearly equal) to the value of $d$ in all the partial tables. This may be represented by:

   $$dy_x = dy_x.z_1 = dy_x.z_2$$

2. The control variable $Z$ affects both $X$ and $Y$ but there is no direct relation between $X$ and $Y$. The relationship between $X$ and $Y$ appears only if $Z$ varies but it disappears if $Z$ is held constant. In this case, the value of $d$ found in the original table is not equal to 0 but the value
of $d$ in all the partial tables does equal (or nearly equals) 0. This is represented by:

$$dyx \neq 0$$
$$dyx.z_1 = dyx.z_2 = 0$$

3. The control variable $Z$ affects the relation between $X$ and $Y$. There is a relation between $X$ and $Y$ as long as $Z$ has a certain value. Here, the value of $d$ is not equal to 0 in the original table and is not constant in the partial tables. This is known as the interaction of $X$ and $Z$ on $Y$ and may be represented by:

$$dyx \neq 0$$
$$dyx.z_1 \neq dyx.z_2$$

In the analysis with the three variables, the $X$-$Y$ relations in the partial tables are first examined for interaction between $X$ and $Z$ on $Y$. If this is not operating, then the relations in the partial tables are compared to the original table to determine if $Z$ has any effect on the $X$-$Y$ relation (case 1) or if $Z$ shows the $X$-$Y$ relation to be spurious (case 2). This is accomplished on the basis of the magnitudes of Somers' $d$.

**SUMMARY**

Married women who were living in single family houses located throughout metropolitan Vancouver composed the sample for this research. These 217 women had lived in their homes for at least six months and were interviewed during the summer. They provided information about their own
social characteristics as well as those of each of their contiguous neighbours. The spatial features separating their houses from the dwelling units of each of their neighbours were also ascertained. The unit of analysis is the respondent-contiguous neighbour pair and the variables describe relations between the members of the pair. The operationalization of greeting, visiting, functional distance and social similarity has been detailed. Somers' d is employed as the measure of association which is appropriate for the asymmetrical hypotheses and ordinal data. The subsequent analysis shows whether or not the predicted relationships between the variables were attained for this sample.
REFERENCES


Blishen, Bernard R.

B.C. Directories

Gans, Herbert J.

Gans, Herbert J.

Gray, George A.

Keller, Suzanne

Kish, Leslie

Lazarsfeld, P.F., and H. Menzel

Meis, S.M., and W.J. Scheu
Michelson, William  

1971 OSIRIS II. Inter University Consortium for Political Research. Ann Arbor: The University of Michigan, July.

Schorr, Alvin L.  

Somers, Robert H.  

Wilson, Thomas P.  
1970 Measures of Association for Bivariate Ordinal Hypotheses. Santa Barbara: University of California. (Mimeographed.)
CHAPTER 3

DATA ANALYSIS

In Chapter 1 the general hypotheses pertaining to the study have been outlined. The characteristics of the sample of people who were used as respondents have been described in the second chapter, together with a method for the operationalization of the concepts of the above hypotheses. An argument in favour of the use of a particular statistical method has also been presented. This chapter represents an attempt to examine the data collected in the light of the theoretical framework which has been developed. By so doing, the data may be expected to either support or refute the hypotheses.

FUNCTIONAL DISTANCE

Hypothesis (1) predicts that the functional distance between a pair of contiguous neighbours influences the greetings between the two adults. The less the distance between the dwelling units of a pair the more likely it is that they will inadvertently meet each other. This provides them with an opportunity to greet each other.

Hypothesis (1): As the functional distance between neighbours decreases, the proportion of neighbours who greet each other increases.
On the basis of hypothesis (1), a strong negative association between functional distance and greeting is expected. The percentage of pairs who greeted each other, together, with Somers' d is presented in Table II. The highest percentage of pairs of neighbours who greeted each other consists of those adults whose dwelling units are on the same side of the same street while the lowest percentage consists of those whose dwelling units are on different streets without a laneway. In the cases of neighbours who live on different sides of the same street, or on different streets with a laneway between their dwelling units, the same percentage greeted each other in both cases. Whether the vehicle route is at the back or front of the two houses makes no difference. The percentage of pairs who greet each other decreases as the functional distance increases. The sign of Somers' d also indicates this negative relationship. As the functional distance decreases, the number of pairs of neighbours who greet each other tends to increase. Although the trend in the percentages in Table II, and the sign of d, are in accordance with hypothesis (1), the magnitude of d shows this to be a weak association. The sample does not provide strong support for the first hypothesis since the association between functional distance and greeting, though negative as predicted, is weak.
TABLE II
Respondent-Contiguous Neighbour Pairs
Greeting Each Other and Functional Distance

<table>
<thead>
<tr>
<th>Functional Distance</th>
<th>Percent of Pairs</th>
<th>Number of Pairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Same Street</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Same Side</td>
<td>14%</td>
<td>678</td>
</tr>
<tr>
<td>Different Side</td>
<td>5</td>
<td>881</td>
</tr>
<tr>
<td>Different Street</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laneway</td>
<td>5</td>
<td>343</td>
</tr>
<tr>
<td>No Laneway</td>
<td>3</td>
<td>317</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td>2119</td>
</tr>
</tbody>
</table>

Somers’ d            | -.06             | 2119            |

a. Total number of pairs is not 2511 due to missing information.

SOCIAL SIMILARITY

Hypothesis (2) predicts that the social similarity between neighbours affects the casual and planned visits between the two adults. If the neighbours are similar to each other they are more likely to have the underlying compatibility postulated to be necessary for a casual or planned visit.

Hypothesis (2): Similar neighbours are more likely to visit each other than dissimilar neighbours.
To examine this hypothesis, it was necessary to determine whether each respondent-contiguous neighbour pair was either similar or not similar by the methods detailed in Chapter 2. However, this assignment of similarity could not be made for all the pairs due to the manner in which the social characteristics of the contiguous neighbours were collected. Each respondent was requested to give the characteristics of each of her contiguous neighbours, but several respondents knew only one or two of the characteristics required. This measurement problem influences the testing of the second hypothesis.

Knowing the Characteristics of Neighbours

The respondent was asked the age, the age of children at home, the place of origin, the education, and the occupation of each contiguous neighbour. She either knew or did not know each of these characteristics for each neighbour. However, similarity could be ascertained only for those pairs for which the respondent knew the trait. A knowledge of each of the characteristics could have been acquired by the respondent either directly from the neighbour or indirectly through a third person. The former channel of communication is probably more frequently utilized by contiguous neighbours. By visiting her contiguous neighbour, the respondent learns the particular traits of the neighbour. This knowledge puts the respondent in the situation where she can decide whether to invite the neighbour for another visit. Thus, there may be a continuous process of visiting, discovering characteristics, visiting, etc. An examination of this relationship follows.
Visiting is expected to be strongly and positively associated with the knowledge which a respondent possesses regarding any given characteristic of her neighbour. As a result of each visit, knowledge about other characteristics may be gained. The amount of visiting within this respondent-contiguous neighbour pair is also expected to be strongly and positively associated with the number of characteristics which a respondent knows about her neighbour. Since a greeting encounter does not provide enough time for these characteristics to be learnt, a weak association between greeting and knowledge of characteristics is expected. In Table III the necessary evidence is provided by employing the type of contact as the independent variable.

If a pair greeted or visited each other the respondent is more likely to know each of the characteristics of the neighbour as well as to know more of the characteristics than if the pair did not have any contact during the week. For every trait, except life-cycle stage, and education, having had a visit is more strongly related to knowledge than having had a greeting. On the basis of the magnitudes of $d_{xy}$, it can be observed that knowledge of the country of birth, as well as knowledge of several characteristics, is strongly dependent upon visiting. The respondents tend to learn the characteristics of their neighbours through direct speaking contacts with those neighbours.

Returning to the process which may be operating, one would expect that the respondent's knowledge of each characteristic and the number of characteristics known is positively associated with visiting. It


TABLE III

The Effect of Contact on the Respondent's Knowledge of Characteristics of Contiguous Neighbour (Somers' dxy)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Greeting</th>
<th>Casual Visit</th>
<th>Planned Visit</th>
<th>Number of Pairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>.11</td>
<td>.24</td>
<td>.19</td>
<td>2164</td>
</tr>
<tr>
<td>Life-Cycle Stage</td>
<td>.15</td>
<td>.16</td>
<td>.15</td>
<td>2204</td>
</tr>
<tr>
<td>Country of Birth</td>
<td>.21</td>
<td>.40</td>
<td>.41</td>
<td>2119</td>
</tr>
<tr>
<td>Education</td>
<td>.15</td>
<td>.27</td>
<td>.12</td>
<td>2136</td>
</tr>
<tr>
<td>Employment</td>
<td>.22</td>
<td>.30</td>
<td>.26</td>
<td>2130</td>
</tr>
<tr>
<td>Number of Characteristics Known</td>
<td>.29</td>
<td>.48</td>
<td>.42</td>
<td>2240</td>
</tr>
</tbody>
</table>

a. Each characteristic has two categories: Don't Know, Know.

b. Total number of pairs is not 2511 due to missing information for both variables.

c. If the respondent knows the employment status, she also knows whether a neighbour is a housewife or not.

It may also be the case that knowledge of each or several characteristics is more strongly related to visiting than to greeting. The less intense, brief, greetings probably do not require a knowledge of the traits of the contiguous neighbours. On the contrary, the choice of whom one visits would require an evaluation of the characteristics of that person and thus knowledge of those characteristics is more intimately involved in this case.
Table IV shows that the respondent's knowledge of each or several characteristics of a given neighbour is positively related with the two neighbours having a greeting, a casual visit, or a planned visit. However, the associations are not strong. Each characteristic is more strongly correlated with casual visits than with greetings, indicating that knowledge of the characteristic is more necessary for casual visits than for quick greetings in accordance with the above predictions. The relative magnitudes of dyx for greeting and planned visit however, are not as expected. The respondents have tended to have contacts with those neighbours whose characteristics are known.

**TABLE IV**

The Effect of the Respondent's Knowledge of Characteristics of Contiguous Neighbour on Contact (Somers' dyx)

<table>
<thead>
<tr>
<th>Type of Contact</th>
<th>Characteristica</th>
<th>Number of Pairsb</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Life-Cycle Age</td>
<td>Country of Birth</td>
</tr>
<tr>
<td>Greeting</td>
<td>.04</td>
<td>.08</td>
</tr>
<tr>
<td>Casual Visit</td>
<td>.16</td>
<td>.16</td>
</tr>
<tr>
<td>Planned Visit</td>
<td>.04</td>
<td>.05</td>
</tr>
<tr>
<td>Number of Pairs</td>
<td>2164</td>
<td>2204</td>
</tr>
</tbody>
</table>

a. Each characteristic has two categories: Don't Know, Know.

b. If the respondent knows the employment status, she also knows whether a neighbour is a housewife or not.

c. Total number of pairs is not 2511 due to missing information for both variables.
Within the repetitive cycle of knowing characteristics, visiting, knowing characteristics, etc., it is of interest to see whether knowledge of characteristics affects visiting or vice versa. A comparison of the magnitudes of $d$ in Table III ($d_{xy}$) and Table IV ($d_{yx}$) demonstrates that visiting is more strongly related to knowing the characteristics of one's neighbour than knowing the characteristics is related to visiting. This indicates that, for the women respondents, contact is more important for the acquisition of knowledge than knowledge is for having contact.

Furthermore, some social characteristics were known by more respondents than others. The stage in the life cycle of their neighbours was known by most of the women respondents (Table V). This characteristic is probably highly salient for the majority of respondents who are married housewives with children. On the other hand, most of the women do not know the education of their neighbours. Most of the respondents and contiguous neighbours had completed school several years ago and education is not part of the present life experience of both the women and their contiguous neighbours.

Since, for a given characteristic, a similarity variable can be developed only for those pairs in which the respondent knows the characteristic of the neighbour, a different number and set of pairs would contribute data to the test of the second hypothesis for each characteristic. However, it is desirable to utilize the same group of pairs for the test of the effect of similarity of each of the characteristics on visiting. To obtain the same respondent-contiguous neighbour
TABLE V

Percentage of Pairs in Which Respondent Knows Social Characteristic of Contiguous Neighbour

<table>
<thead>
<tr>
<th>Characteristic Known by Respondent</th>
<th>Percent of Pairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>68%</td>
</tr>
<tr>
<td>Life-Cycle Stage</td>
<td>80</td>
</tr>
<tr>
<td>Country of Birth</td>
<td>49</td>
</tr>
<tr>
<td>Education</td>
<td>24</td>
</tr>
<tr>
<td>Employment</td>
<td>65</td>
</tr>
<tr>
<td><strong>Number of Pairs</strong></td>
<td><strong>2511</strong></td>
</tr>
</tbody>
</table>

pairs for each characteristic, those pairs in which the respondent knew all five of the social characteristics were selected. For these pairs, every characteristic can be designated as similar or not similar and those factors which cause the respondent to know the characteristics of her neighbour are held constant.

Of the 217 respondents, 128, or 59 percent, knew all five of the characteristics of at least one of their contiguous neighbours. For these 128 respondents the average number of neighbours per respondent about whom all five characteristics were known was 3, with a minimum of 1 and a maximum of 12 neighbours. By selecting only those pairs in which the respondent knew all five of the characteristics, a majority of the pairs were eliminated. Table VI shows that, of the 2511 respondent-
TABLE VI
Percentage of Pairs in Which Respondent Knows Number of Social Characteristics of Contiguous Neighbour

<table>
<thead>
<tr>
<th>Number of Characteristics Known by Respondent</th>
<th>Percent of Pairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>17%</td>
</tr>
<tr>
<td>One</td>
<td>5</td>
</tr>
<tr>
<td>Two</td>
<td>14</td>
</tr>
<tr>
<td>Three</td>
<td>21</td>
</tr>
<tr>
<td>Four</td>
<td>26</td>
</tr>
<tr>
<td>Five</td>
<td>17</td>
</tr>
<tr>
<td>Number of Pairs</td>
<td>2511</td>
</tr>
</tbody>
</table>

neighbour pairs, the respondents knew all five of the characteristics in 17 percent of the pairs with a corresponding 17 percent of the neighbours about whom the respondents knew none of the characteristics. Thus, of the 2511 pairs, the respondents knew all the characteristics of the contiguous neighbour in only 433 cases. Hypothesis (2) is examined with these 433 pairs in which the respondent knew all five of the characteristics of her contiguous neighbour.

1. Though sex has also been used as a similarity variable it was not involved in the choice of the pairs. Those 433 contiguous neighbours for whom the respondents knew all the five characteristics also have information as to their sex. The respondent was not asked directly to provide the sex of the neighbour but it was obtained from the 'Mr.', or 'Mrs.', or 'Miss', or the first name of the neighbour which was recorded in the interview schedule. The coded categories for sex are: no information, male, female. "Know-don't know sex" does not have the same meaning as "know-don't know age, life-cycle stage, country of birth, education, or employment". The respondent probably has to have some form of speaking contact with her neighbour in order to acquire knowledge of the latter characteristics but a mere visual encounter will provide the respondent with the sex of her neighbour.
Social Similarity

When these 433 pairs were analyzed on the basis of their similarity in each of the social characteristics it was found that these pairs were predominantly dissimilar with regard to most of these characteristics or with regard to particular combinations of them (Table VII). In contrast, a majority (64 percent) of the respondents were born in the same country as their neighbours. In many of these instances this country was Canada. Also, 48 percent of the respondents and their neighbours were similar in sex and were both women. Except for similarity in 'sex and employment', these neighbours were rarely similar in the combinations of characteristics. Only a few pairs (2 percent) have all six of the social characteristics similar while the largest numbers of pairs have two (25 percent) and three (28 percent) characteristics similar (Table VIII). It is interesting to note that neighbours are not similar for a large number of characteristics. Hypothesis (2) is examined with these similarity distributions.

The general hypothesis is restated to incorporate each operationalization of 'similar' as follows:

**Hypothesis (2a):** Neighbours who are similar in sex, or age, or age of youngest child, or country of birth, or education, or employment are more likely to visit each other than neighbours who are dissimilar in sex, or age, or age of youngest child, or country of birth, or education, or employment respectively.
### TABLE VII

Percentage of Pairs Similar For Each Social Characteristic and Particular Combinations of Characteristics

<table>
<thead>
<tr>
<th>Social Characteristic</th>
<th>Percent Similar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country of Birth</td>
<td>64%</td>
</tr>
<tr>
<td>Sex</td>
<td>48</td>
</tr>
<tr>
<td>Employment</td>
<td>45</td>
</tr>
<tr>
<td>Education</td>
<td>39</td>
</tr>
<tr>
<td>Age</td>
<td>34</td>
</tr>
<tr>
<td>Age of youngest child</td>
<td>28</td>
</tr>
<tr>
<td>Housewife</td>
<td>24</td>
</tr>
<tr>
<td>Sex, employment</td>
<td>30</td>
</tr>
<tr>
<td>Education, age</td>
<td>13</td>
</tr>
<tr>
<td>Housewife, age of youngest child</td>
<td>6</td>
</tr>
<tr>
<td>Sex, education, age</td>
<td>7</td>
</tr>
<tr>
<td>Sex, employment, age of youngest child, country</td>
<td>6</td>
</tr>
</tbody>
</table>

**Number of pairs**

433

---

*a. Only those pairs are included for which the respondent knows all 6 social characteristics.*
TABLE VIII

Percentage of Pairs with Number of Social Characteristics Similar

<table>
<thead>
<tr>
<th>Number of Characteristics Similar</th>
<th>Percent of Pairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>3%</td>
</tr>
<tr>
<td>One</td>
<td>18</td>
</tr>
<tr>
<td>Two</td>
<td>25</td>
</tr>
<tr>
<td>Three</td>
<td>28</td>
</tr>
<tr>
<td>Four</td>
<td>18</td>
</tr>
<tr>
<td>Five</td>
<td>6</td>
</tr>
<tr>
<td>Six</td>
<td>2</td>
</tr>
<tr>
<td>Number of Pairs</td>
<td>433</td>
</tr>
</tbody>
</table>

Hypothesis (2b): Neighbours who are similar in a particular combination of social characteristics are more likely to visit each other than neighbours who are dissimilar in that particular combination of social characteristics.

Hypothesis (2c): As the number of characteristics in which a pair is similar increases, the likelihood that they will visit each other also increases.

In hypothesis (2a), a strong positive association between the similarity of each characteristic, and casual or planned visits, is predicted. Similarity is expected to be necessary for visiting. Table IX presents the pertinent Somers' d values which are required in order to test the above prediction. An example of the table set-up, to calculate
d for each characteristic, appears in Appendix E. Similarity in each characteristic is positively associated with casual visits. The highest associations are found for those pairs of neighbours who are similar in sex or who are both housewives, indicating that women tend to 'chat' with each other more than with men and that sexual similarity is more important for casual visits than the other similarities are. Also, similarity in every characteristic, except country of birth is positively related to planned visits. The sign of d between country of birth and planned visits indicates that neighbours who were born in the same country tend not to visit each other. However, the magnitude of d for this relationship is negligible. Although the direction of all the associations, except one, supports the hypotheses, the magnitudes of d are small and suggest a weak positive association between each social characteristic and casual and planned visits. Hypothesis (2a) is not strongly supported by this sample of neighbours. Similarity in each characteristic is positively but only weakly related to visiting between the pairs.

TABLE IX
Visiting and Similarity for Each Social Characteristic (Somers' d)

<table>
<thead>
<tr>
<th>Social Characteristic</th>
<th>Type of Visit</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Casual</td>
<td>Planned</td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>.17</td>
<td>.04</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>.10</td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td>Age of Youngest Child</td>
<td>.01</td>
<td>.03</td>
<td></td>
</tr>
<tr>
<td>Country of Birth</td>
<td>.07</td>
<td>-.02</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>.09</td>
<td>.05</td>
<td></td>
</tr>
<tr>
<td>Employment</td>
<td>.08</td>
<td>.02</td>
<td></td>
</tr>
<tr>
<td>Housewife</td>
<td>.12</td>
<td>.08</td>
<td></td>
</tr>
<tr>
<td>Number of Pairs\textsuperscript{a}</td>
<td>410</td>
<td>410</td>
<td></td>
</tr>
</tbody>
</table>

a. Total number of pairs is not 433 due to missing cases in dependent variable.
Hypothesis (2b) predicts that if a pair of neighbours is similar in two or more particular characteristics; then this similarity is positively and strongly related to visiting. If a pair of neighbours is similar in more than one characteristic they have a broader common ground than if they are similar in just one of the characteristics. Table X contains the results which are applicable to hypothesis (2b). Somers' d was calculated from tables similar to that shown in Appendix E. Similarity in each combination is positively associated with casual and planned visits. The highest association is between the combination -- 'sex, education, age' -- and casual visit indicating that pairs who are similar for these three social characteristics tend to speak to each other more than pairs who are similar for the other combinations of the characteristics. However, the pattern of d for the women of the sample does not strongly support hypothesis (2b). Similarity between two adults in the five combinations of social characteristics is positively, but weakly, associated with their visiting.

**TABLE X**

Visiting and Similarity for Particular Combinations of Social Characteristics (Somers' d)

<table>
<thead>
<tr>
<th>Combination of Characteristics</th>
<th>Type of Visit</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Casual</td>
<td>Planned</td>
<td></td>
</tr>
<tr>
<td>Sex, employment</td>
<td>.08</td>
<td>.04</td>
<td></td>
</tr>
<tr>
<td>Housewife, age youngest child</td>
<td>.11</td>
<td>.11</td>
<td></td>
</tr>
<tr>
<td>Sex, education, age</td>
<td>.24</td>
<td>.09</td>
<td></td>
</tr>
<tr>
<td>Education, age</td>
<td>.11</td>
<td>.06</td>
<td></td>
</tr>
<tr>
<td>Sex, employment, age youngest child, country</td>
<td>.10</td>
<td>.10</td>
<td></td>
</tr>
<tr>
<td>Number of Pairs a</td>
<td>410</td>
<td>410</td>
<td></td>
</tr>
</tbody>
</table>

a. Total number of pairs is not 433 due to missing information for dependent variables.
Hypothesis (2c) deals with the number of characteristics in which the two persons in the pair are similar. A strong positive association between the number of similar characteristics and visiting is predicted. Also, for visiting, the association is probably larger in magnitude for planned visits than for casual visits as the more intense formal situation would require a broader similarity base than the informal casual visit. For planned visits, the participants select each other more carefully on the basis of compatibility and thus they are likely to be similar in more characteristics. Table XI demonstrates that the direction of the hypothesis is supported for both casual and planned visits -- as the number of similar characteristics increases, the likelihood of a casual or planned visit increases. Again, however, the magnitudes of $d$ are low. The value of the association is greater for casual than for planned visits. This is not as expected and indicates that similarity on several characteristics is more important for casual than for planned visits. For those pairs in which the women respondents know all the social characteristics of their neighbours, the number of those characteristics which are similar between the neighbours is not strongly related to their visiting.

**TABLE XI**

<table>
<thead>
<tr>
<th>Type of Visit</th>
<th>Somers' $d$</th>
<th>Number of Pairs $^a$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Casual</td>
<td>.13</td>
<td>410</td>
</tr>
<tr>
<td>Planned</td>
<td>.04</td>
<td></td>
</tr>
</tbody>
</table>

$a$. Total pairs is not 433 due to missing cases in dependent variables.
For all the operationalizations of similarity stated in hypotheses (2a), (2b), and (2c), a positive but weak association between the similarity of the contiguous neighbours and their visiting is demonstrated. For those pairs of the total sample for which the women respondents knew all the six social characteristics of their neighbours, similarity in one characteristic, in specific combinations, or in all the characteristics, is related, although not strongly, to visiting.

**SOCIAL SIMILARITY AND FUNCTIONAL DISTANCE**

Hypothesis (3) predicts that the functional distance influences the visiting between neighbours only when the neighbours are similar. The functional distance does not affect visiting between dissimilar neighbours. Furthermore, the functional distance operates in the same way for visiting between similar neighbours as it does for greetings between the neighbours — the smaller the distance, the greater the number of neighbours who visit. Similarity provides the compatibility required for visiting while the functional distance between similar neighbours facilitates, or interferes with their contact.

**Hypothesis (3):** If the neighbours are similar; as the functional distance between neighbours decreases, the proportion of neighbours who visit each other increases. If the neighbours are not similar; they probably do not visit each other and functional distance makes little difference.
As a result of the operationalization of the term 'similar' mentioned above; hypothesis (3), like hypothesis (2), may be divided into three hypotheses as shown below.

**Hypothesis (3a):** If the neighbours are similar in sex, or age, or age of youngest child, or country of birth, or education, or employment; as the functional distance between neighbours decreases, the proportion of neighbours who visit each other increases.

If the neighbours are not similar in sex, or age, or age of youngest child, or country of birth, or education, or employment; they probably do not visit each other and functional distance makes little difference.

**Hypothesis (3b):** If the neighbours are similar in a particular combination of social characteristics; as the functional distance between neighbours decreases, the proportion of neighbours who visit each other increases.

If the neighbours are not similar in any particular combination of social characteristics; they probably do not visit each other and functional distance makes little difference.

**Hypothesis (3c):** If the neighbours are similar in one or more characteristics; as the functional distance between neighbours decreases, the proportion of neighbours who visit each other increases.
If the neighbours are not similar in any characteristic; they probably do not visit each other and functional distance makes little difference.

These hypotheses are examined with those 433 pairs of neighbours for whom the respondents knew all the social characteristics of their contiguous neighbours. Before any meaningful results could be obtained regarding the validity of hypotheses (3a), (3b), and (3c) it was necessary to be sure that this subset of the sample was not an anomalous one regarding the relationship between functional distance and the three types of contact. Since this analysis of the 433 pairs requires the Somers' d values between distance and each of the three types of contact, they have been calculated and presented in Table XII. In order to show that no anomalies existed in this subsample, the corresponding values for the total sample have also been presented in Table XII. A comparison of the magnitude of d for each type of contact in the total and selected samples shows them to be nearly equal, with the largest variation of .04 for casual visits. The associations for greetings, casual visits, and planned visits are all weak and negative. The relation between functional distance and all types of contact controlling for similarity for these 433 pairs is investigated in hypothesis (3).

Hypothesis (3a) requires that the similarity of each social characteristic be controlled. A strong negative association between functional distance and casual or planned visit is predicted when each characteristic is similar and a weak association between functional
**TABLE XII**

Contact Types and Functional Distance for Total Sample and Selected Sample (Somers' d)

<table>
<thead>
<tr>
<th>Type of Contact</th>
<th>Total</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-0.06</td>
<td>-0.07</td>
</tr>
<tr>
<td></td>
<td>-0.10</td>
<td>-0.06</td>
</tr>
<tr>
<td></td>
<td>-0.02</td>
<td>-0.02</td>
</tr>
</tbody>
</table>

| Number of Pairs\(^a\) | 2119 | 407     |

\(^a\) Total number of pairs is not 2511 in total sample or 433 in selected sample due to missing information in both variables.

Distance and visiting is expected when that characteristic is not similar. Thus, a statistical interaction effect between similarity and functional distance on visiting is anticipated. If this is the case, the magnitudes of d between distance and visiting, for similar and not similar, must vary. If this interaction between the independent variables does not occur, the results have been investigated further to see if any effect of similarity is present. As well, the functional distance is expected to be strongly and negatively related to greetings regardless of whether the pairs are similar or not in each characteristic. Similarity is not required for the less intense, brief, greetings between the neighbours.

Furthermore, among those pairs of neighbours who are similar, the functional distance is expected to be more strongly related to
casual rather than to planned, visits. The casual visit is an unarranged visit and arises from two similar adults inadvertently meeting each other and one adult inviting the other for a drink, or something to eat, or just to 'chat'. The planned visit between similar neighbours is organized before it takes place and does not arise as spontaneously as a casual visit. The functional distance affects which of the similar neighbours come together in the same space and thus have a chance to meet and to speak to each other for a short time or to extend invitations for a short visit. Although a planned visit occurs primarily between similar neighbours whose functional distance allows them to come into frequent contact with each other it is not as intimately involved with these inadvertent contacts as a casual visit is.

Table XIII presents the Somers' d between each social characteristic and the three types of contact. An example of the type of table which has been used to obtain d between functional distance and contact, for each characteristic, has been presented in Appendix F.

For casual visits, the data confirm the predicted interaction for all seven of the social characteristics except employment. The interaction effect is strongest for age of the youngest child, and education. Although the difference in the magnitude of d between similar and not similar in each characteristic is not large, the data reveal a slight tendency for functional distance to have more of an effect on casual visits for pairs who are similar than for those who are not similar in: sex, age, age of youngest child, country of birth, education, and housewife.
Again, the relation between functional distance and casual visit, in each instance, is weak and negative.

For planned visits, the functional distance has a greater effect for pairs who are similar rather than for those who are not similar in education or employment. However, these interactions are weak. For country of birth, there is a stronger negative relation between distance and planned visit for dissimilar, rather than similar, pairs. This is not as predicted but the difference (.03) is again small. For planned visits, the magnitudes of d, whether positive or negative, are all very low.

Functional distance and greetings, as expected, are negatively associated regardless of whether the pairs are similar or not similar in each social characteristic. The relationships, however, are weak. Small interaction effects are evident with stronger correlations; for similar pairs, in age, education, employment, and housewife, and; for dissimilar pairs, in sex, age of youngest child, and country of birth. This pattern reveals that the relation between functional distance and greeting is not significantly, or consistently, affected by similarity. Hypothesis (3a) is supported, to a small extent, for casual visits but not for planned visits.

For those neighbours who are similar on each characteristic the functional distance is more strongly, and negatively, related to casual visits than to planned visits. An exception is the case of similar employment, where the magnitudes are equal for casual and planned visits. Thus, although the associations are weak, functional distance,
TABLE XIII

Contact Types and Functional Distance Controlling Similarity for Each Characteristic (Somers' d)

<table>
<thead>
<tr>
<th>Social Characteristic</th>
<th>Type of Contact</th>
<th>Greeting</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Similar</td>
<td>Not Similar</td>
<td>Similar</td>
<td>Not Similar</td>
<td>Similar</td>
<td>Not Similar</td>
<td>Similar</td>
<td>Not Similar</td>
<td>Similar</td>
<td>Not Similar</td>
<td></td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td>.06</td>
<td>-.08</td>
<td>.06</td>
<td>-.05</td>
<td>.00</td>
<td>-.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(200)</td>
<td>(207)</td>
<td>(200)</td>
<td>(207)</td>
<td>(200)</td>
<td>(207)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td>-.11</td>
<td>-.05</td>
<td>-.09</td>
<td>-.04</td>
<td>.00</td>
<td>-.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>(132)</td>
<td>(275)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age of Youngest Child</td>
<td></td>
<td>-.06</td>
<td>-.07</td>
<td>-.11</td>
<td>-.04</td>
<td>.02</td>
<td>-.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(114)</td>
<td>(293)</td>
<td>(114)</td>
<td>(293)</td>
<td>(114)</td>
<td>(293)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Country of Birth</td>
<td></td>
<td>-.03</td>
<td>-.12</td>
<td>-.07</td>
<td>-.06</td>
<td>-.01</td>
<td>-.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
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<td>(258)</td>
<td>(149)</td>
<td>(258)</td>
<td>(149)</td>
<td>(258)</td>
<td>(149)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td>-.12</td>
<td>-.03</td>
<td>-.10</td>
<td>-.03</td>
<td>-.06</td>
<td>.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(159)</td>
<td>(248)</td>
<td>(159)</td>
<td>(248)</td>
<td>(159)</td>
<td>(248)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment</td>
<td></td>
<td>-.08</td>
<td>-.06</td>
<td>-.03</td>
<td>-.09</td>
<td>-.03</td>
<td>-.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(183)</td>
<td>(224)</td>
<td>(183)</td>
<td>(224)</td>
<td>(183)</td>
<td>(224)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housewife</td>
<td></td>
<td>-.10</td>
<td>-.06</td>
<td>-.08</td>
<td>-.06</td>
<td>.01</td>
<td>-.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(97)</td>
<td>(310)</td>
<td>(97)</td>
<td>(310)</td>
<td>(97)</td>
<td>(310)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
as expected, has more influence on a casual rather than on a planned visit between neighbours who are similar for each characteristic individually.

Similarity in particular combinations of characteristics has been controlled in order to test hypothesis (3b). Again, a strong negative association between functional distance and visiting is predicted when the neighbours are similar in a particular combination of characteristics and a weak association when they are not similar in that particular combination of characteristics. A strong negative relationship between greetings and distance is expected for neighbours who are either similar or not similar in a particular combination of characteristics. Functional distance is also expected to be more strongly related to casual than to planned visits for neighbours who are similar in the particular combinations. Tables comparable to that in Appendix F have been used to obtain Somers' d. These values have been presented in Table XIV.

The predicted interaction between functional distance and similarity appear to hold for casual visits in four of the five combinations of characteristics. The exception is 'sex, employment'. There are fairly large differences between similar and not similar for 'housewife, age of youngest child' (.22), and 'sex, employment, age of youngest child, country' (.29). The size of the interactions should be interpreted with caution since the number of pairs, who are similar in any of these combinations, is small. Under such circumstances one or two pairs can have a disproportionately large influence on the magnitude
of d. All of the associations between functional distance and casual visits were found to be negative regardless of whether the respondent-contiguous neighbour pairs were similar or not in these combinations of characteristics.

For planned visits, the predicted interaction occurs only for the combination of 'education, age' and even here this interaction is weak. The majority of Somers' d values for planned visits, regardless of similarity, are negative in sign and low in magnitude. Also, for greetings, a weak negative association between greetings and functional distance predominates regardless of whether the pairs are similar or not similar in the particular combinations of characteristics. There is a fairly strong interaction between 'education, age', and functional distance indicating that functional distance has a greater effect on greetings for pairs who are similar, rather than those who are not similar, in education and age. The sample does not provide strong support for hypothesis (3b) because the predicted strong interactions do not occur for both casual and planned visits. However, as with hypothesis (3a), the evidence for casual visits marginally supports hypothesis (3b).

Among neighbours who are similar in the particular combinations of social characteristics, the functional distance is more strongly related to casual, than to planned visits in four of the five combinations. The relationships again indicate that, for neighbours who are similar in two or more specific characteristics, functional distance
TABLE XIV

Contact Types and Functional Distance Controlling Similarity for Particular Combinations of Social Characteristics (Somers' d)

<table>
<thead>
<tr>
<th>Combination of Characteristics</th>
<th>Type of Contact</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Greeting</td>
<td>Similar</td>
<td>Not Similar</td>
<td>Similar</td>
<td>Not Similar</td>
</tr>
<tr>
<td>Sex, employment</td>
<td>-.09</td>
<td>-.06</td>
<td>(125)</td>
<td>-.06</td>
<td>-.07</td>
</tr>
<tr>
<td>Housewife, age youngest child</td>
<td>.03</td>
<td>-.07</td>
<td>(24)</td>
<td>-.27</td>
<td>-.05</td>
</tr>
<tr>
<td>Sex, education, age</td>
<td>-.06</td>
<td>-.07</td>
<td>(26)</td>
<td>-.13</td>
<td>-.06</td>
</tr>
<tr>
<td>Education, age</td>
<td>-.22</td>
<td>-.04</td>
<td>(52)</td>
<td>-.07</td>
<td>-.06</td>
</tr>
<tr>
<td>Sex, employment, age youngest child, country</td>
<td>.09</td>
<td>-.08</td>
<td>(25)</td>
<td>-.34</td>
<td>-.05</td>
</tr>
</tbody>
</table>
affects their casual visits more than their planned visits. However, the magnitudes of $d$ are not large.

The number of similar characteristics between the pairs are controlled in order to examine hypothesis (3c). If the pairs are similar in one or more characteristics a strong negative relation between functional distance and visiting is expected. However, if they are not similar in any characteristic a weak association should be found. Regardless of the number of similar characteristics, functional distance and greetings are expected to be negatively and strongly related since brief greetings do not necessarily require any similarity between the neighbours. Functional distance should also be more strongly related to casual visits than to planned visits for pairs of neighbours who are similar in one or more of the six characteristics. The evidence for hypothesis (3c) appears in Table XV. The values of Somers' $d$ indicate that, when the pairs do not have any similar characteristics, the functional distance has a weak positive association with both casual and planned visits. Both of these statistics may not be reliable since, of the eleven pairs, only two pairs and one pair, respectively, had had contact. In the case of neighbours who are similar in one or more of the six characteristics, functional distance is negatively, but weakly, related to both casual and planned visits. Within the category of neighbours who have at least one characteristic in common; the functional distance appears to be inversely related to visiting. The association between greeting and functional distance is weak, but negative, for all
of the neighbours in this sample except those who are similar in all six characteristics. The sample does not strongly support the predictions of hypothesis (3c). Although distance and visiting are negatively related, the extent of this relation is small for pairs having one or more similar characteristics. However, with the exception of neighbours who have two similar characteristics, the functional distance in all of the above cases is more strongly related to casual than to planned visits. In other words, the functional distance influences the casual visits between these neighbours more than it affects their planned visits.

TABLE XV
Contact Types and Functional Distance Controlling Number of Similar Social Characteristics (Somers' d)

<table>
<thead>
<tr>
<th>Number of Characteristics Similar</th>
<th>Type of Contact</th>
<th>Number of Pairs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Greeting</td>
<td>Casual Visit</td>
</tr>
<tr>
<td>None</td>
<td>-.12</td>
<td>.18</td>
</tr>
<tr>
<td>One</td>
<td>-.06</td>
<td>-.04</td>
</tr>
<tr>
<td>Two</td>
<td>-.06</td>
<td>-.03</td>
</tr>
<tr>
<td>Three</td>
<td>-.09</td>
<td>-.09</td>
</tr>
<tr>
<td>Four</td>
<td>-.02</td>
<td>-.07</td>
</tr>
<tr>
<td>Five</td>
<td>-.22</td>
<td>-.28</td>
</tr>
<tr>
<td>Six</td>
<td>-.13</td>
<td>-.06</td>
</tr>
</tbody>
</table>

Total number of pairs is not 433 due to missing information for the dependent variables.
For hypotheses (3a), (3b), and (3c) a strong negative relationship between functional distance and visiting is predicted in the case of similar neighbours and a weak association between distance and visiting is predicted in the case of dissimilar neighbours. Regardless of similarity, the data generally show weak negative relations between functional distance and visiting as well as between functional distance and greeting. However, for several individual characteristics and combinations of characteristics, there is a slightly stronger relationship between functional distance and casual visits for similar neighbours rather than for dissimilar neighbours. Also, from those pairs of neighbours in which the women respondents knew all six characteristics, those pairs who are similar in the characteristics were analyzed. In these groups, it was found that the functional distance is more strongly related to casual than to planned visits.

**SUMMARY**

The data do not provide strong support for any of the three hypotheses. For the total sample, the functional distance is negatively, but weakly, associated with greeting. Thus, the direction, but not the magnitude of the relationship is as predicted by hypothesis (1). Since the women respondents were asked the social characteristics of their contiguous neighbours and they were not always able to provide that information, hypotheses (2) and (3) are examined only for the 433 pairs for which the respondents knew all six of the characteristics of their
neighbours. For these neighbours, similarity in each characteristic, in particular combinations of the six characteristics, and in several characteristics is positively, but weakly, related to visiting. The functional distance is also weakly, but negatively, associated with both visiting and greeting regardless of whether the pairs of neighbours are similar or not similar in each, in specific combinations, or in a number of, the characteristics. However, within these weak relationships the functional distance is more strongly related to casual visits among those who are similar rather than dissimilar in age, or age of youngest child, or education, or 'housewife, age of youngest child', or 'sex, education, age', or 'sex, employment, age of youngest child, country'. Also, for neighbours who are similar in each characteristic, in particular combinations of characteristics, and in several characteristics, the functional distance is more strongly related to casual visits than to planned visits.

The statement of the problem with which the research has concerned itself has appeared in the first chapter. Equipped with the results obtained in this chapter, one may now proceed to answer some of the questions which were raised.
CHAPTER 4

THE CONCLUSION

CONCLUSIONS OF THE STUDY

Three questions were posed at the beginning of this research which serve as guidelines for the entire study. Briefly, they are:

1. Do neighbours interact with each other?
2. Does functional distance and social similarity influence different types of contact?
3. Does functional distance affect visiting only for socially similar neighbours?

This section attempts to answer each of these problems based upon the findings of this research. The conclusions of previous investigators in the field are not totally substantiated.

The married women who are living in single family houses tend not to interact with their contiguous neighbours during the summer months. Most of the pairs of neighbours have neither a greeting nor a casual visit nor a planned visit. Proximity is not a sufficient reason for the high school educated, middle-aged, North American mothers to interact with their immediately adjacent neighbours. The social characteristics of the women and their neighbours indicates that they are relatively self-sufficient and thus probably do not need to rely on each other for every-day household aid. If two neighbours had an intense interaction with each other it would probably be for social reasons and not for mutual
help. Although previous researchers claim that the situation of the women -- married, single family houses, summer months -- leads to greater contact with neighbours, this study has found that contact with neighbours does not seem to be desirable for women living throughout metropolitan Vancouver. Instead, they tend to remain socially isolated from those who are physically close. Contact between contiguous neighbours is not widely used as a mechanism to alleviate the impersonality of the urban setting. However, other social networks are more active for these women.

The women of the sample had contact with more of their friends, relatives, and other neighbours in the period of a week than with their contiguous neighbours. They are not as isolated from these other social networks as they are from their contiguous neighbours. For example, as part of the larger study mentioned, it was found that, in the one week analyzed, they had some form of contact with only 24 percent of their contiguous neighbours but with 54 percent of their relatives, 50 percent of their friends, and 42 percent of their non-adjacent neighbours. Thus, these urban women were interacting with other people in the city but not with those adults residing in immediate proximity to them.

Even though the absolute amount of contact between adults living in contiguous dwelling units is not large, the spatial and social components of this network influence the contact between neighbours. This contact is divided into greeting and visiting. As the functional distance between neighbours decreases, the proportion of neighbours who
greet or visit each other increases. The functional distance is not specific in its effect on greetings. In the test of hypotheses (1) and (3), functional distance displays a negative association with greeting and visiting in 84 out of 95 correlations. The positioning of contiguous dwelling units affects the relative proportion of contiguous neighbours who greet or visit each other. These are, in descending order: same side of the same street, different sides of the same street, different streets with a laneway, and different streets without a laneway. In other words, the highest proportion of neighbours who greet each other consists of those whose dwelling units are on the same side of the same street. The functional distance has a small but consistent influence on contact between the women and their contiguous neighbours.

Previous researchers have assumed that social similarity is necessary for a visit between neighbours to occur. This similarity provides the compatibility required between the two adults. For this research, two contiguous neighbours have been classified as 'similar' or 'not similar' based on their: sex, age, life-cycle stage, country of birth, education, and employment. These characteristics are utilized individually, in particular combinations, and all together in order to determine whether or not social similarity is associated with visiting. It was found that if two neighbours are similar with respect to any of these criteria, they tend to visit each other in higher proportions than if they are not similar. This support of the conclusions of prior investigators may only be accepted with caution since all the associations
are consistently weak. No single characteristic has a significantly stronger relationship with visiting than do the other characteristics. Festinger, Schachter and Back (1950); Keller (1968); and Michelson (1970) have written that the functional distance probably affects the visiting between neighbours only if the neighbours are similar. The visiting between the married women of the sample and the contiguous neighbours does not totally support this claim. Regardless of whether the neighbours are similar or not similar in each of the six characteristics individually, in particular combinations or all together, as the functional distance decreases, the proportion of neighbours who have a planned visit increases. However, the functional distance has a slightly higher relationship with casual visits when the neighbours are similar rather than when they are not similar in certain characteristics or combinations of characteristics. Although the amount of interaction is small, these cases tend to support the claims of previous investigators. Functional distance has also been found to be more highly related to casual visits than planned visits for neighbours who are similar in each of the characteristics, and in particular combinations of them. Amongst those neighbours who are similar, regardless of the number of characteristics which they are similar in, the functional distance is more highly related to casual visits than to planned visits.

In summary, not many married women living in single family houses tend to interact with their contiguous neighbours during the summer. They are not socially isolated, however, as they have contact
with their relatives, friends, and other neighbours. The functional distance between the dwelling units of two contiguous neighbours has a slight influence on their greetings, as well as visits. If neighbours are socially similar, they visit each other in slightly higher proportions than if they are not similar. Finally, the question of whether functional distance affects visiting only amongst socially similar neighbours is not completely answered in the affirmative because functional distance and planned visiting are similarly associated for both socially similar and dissimilar contiguous neighbours. Functional distance, however, tends to be more highly associated with casual visiting for socially similar rather than socially dissimilar contiguous neighbours.

These conclusions are based upon the values of Somers' d for the relationships investigated. Since the magnitude of these associations may have been unrealistically suppressed by the method of data collection, the values of gamma have also been obtained. In general, this less stringent measure leads to the same conclusions as have been reached by using Somers' d. The first and second hypotheses receive stronger support while the third hypothesis is again qualified on the basis of the type of visiting. The functional distance has a stronger, but still negative, association with greetings, casual visits, and planned visits. The sign of these relationships, as well as those for the third hypothesis, help to confirm that as the functional distance decreases, the proportion of neighbours who have a contact increases. Whether each of the six social characteristics is examined individually, in particular combinations, or together; similarity is again associated with
whether the neighbours have a casual or planned visit. The magnitudes of gamma are larger than those of d in each case and again indicate that similar, rather than not similar, contiguous neighbours visit each other. When the relation between functional distance and visiting is examined while controlling for similarity, the values of gamma are all larger than the values of d and do not reveal the predicted interaction for planned visits but do show a tendency for functional distance to be more strongly related to casual visits when the neighbours are similar. Thus, by employing gamma instead of Somers' d the conclusions of this study may be stated in a stronger manner but the patterns of the relationships are the same. The effect of the functional distance is not specific to greetings, and social similarity between neighbours is related to their visiting. The functional distance does not have a stronger influence on planned visiting for those contiguous neighbours who are similar rather than not similar but does have a stronger influence on casual visiting between neighbours who are similar rather than not similar.

LIMITATIONS OF THE STUDY

Neighbours have been limited to people living in contiguous dwelling units for this detailed study. This small geographical area may have been too limited to adequately represent all the forms of functional distance. By extending the definition of neighbours to include other people residing in non-adjacent proximity, functional distance would have more variation and a more thorough examination of its effect could be undertaken.
By utilizing data which were collected for slightly different purposes in the analysis for this thesis, two further limitations are present. These are related to the interview and are as follows:

1. The women respondents were requested to provide the social characteristics of their contiguous neighbours. As has been stated, they did not know all of the characteristics of each neighbour and thus the number of pairs used in the test of hypotheses (2) and (3) was reduced to less than a quarter of the total pairs. If both the respondent and her contiguous neighbours had been interviewed, this problem would not have arisen. This latter method would have also served as a check on the reliability of the behavioural data supplied by the respondent and would have helped to assure the accuracy of the characteristics of the neighbour.

2. The contact between neighbours, which was used as the dependent variable throughout the thesis, is restricted to a period of one week. This may have contributed to the skewed distributions for greeting and visiting. With these data, the values of Somers' d may be unduly suppressed. Although gamma is a symmetrical measure of association, it was also used in the analysis to counteract this possible unrealistic skewness. To avoid this situation, the data on contact between neighbours could be collected for a longer period of time such as one month. Although the skewness may still be present in the data, this would probably be more representative of the total pattern of the contact between neighbours.
In this research, social similarity was operationalized in several ways. However, due to pressures of time, only five combinations of characteristics were utilized. Some characteristic or some particular combination of them may be the critical one in determining whether frequent contacts occur or not. Although none of the particular combinations which have been investigated has proved to be extremely significant, more combinations could be investigated in an attempt to evaluate whether such critical combinations exist. An extension of the manner in which social similarity was determined could also be implemented for further research. One could examine the similarity of neighbours with regard to the specific value of the characteristic and not just the characteristic itself, as has been done in the present study. For example, this modification could result in the discovery that two given neighbours were not only similar in education but had also both reached a university level of education. In the present study this pair would be indistinguishable from a pair who had both reached only a high school level of education. The deeper analysis proposed would allow such a distinction to be made and may result in a more incisive understanding of the situation. These exploratory suggestions may lead to a particular set of characteristics which, when similar, are strongly related to contact.

Finally, the unit of analysis for this research has been the pair -- the respondent and each of her contiguous neighbours. Although the characteristics of the people who are concerned undoubtedly enters
into the question of whether they do or do not interact, it may be the
case that the characteristics of their families also enters into this
question. It would perhaps be more appropriate in the future, to com­
pare the characteristics of the families to determine if they are simi­
lar or not, and to examine the effect of this similarity on their inter­
action. Though conceptually attractive, the operationalization of such
a method of analysis would pose formidable problems. For example, the
problems associated with arriving at some conclusion for a particular
social characteristic such as age, or country of birth for a family unit
are obvious. If an attempt was made to surmount these problems, the
additional insight gained may amply justify such efforts.
REFERENCES

Festinger, Leon, Stanley Schachter, and Kurt Back

Keller, Suzanne

Michelson, William
### Table A.1 The Sampling Areas

<table>
<thead>
<tr>
<th>Area</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>14%</td>
</tr>
<tr>
<td>Two</td>
<td>0</td>
</tr>
<tr>
<td>Three</td>
<td>12</td>
</tr>
<tr>
<td>Four</td>
<td>12</td>
</tr>
<tr>
<td>Five</td>
<td>7</td>
</tr>
<tr>
<td>Six</td>
<td>24</td>
</tr>
<tr>
<td>Seven</td>
<td>22</td>
</tr>
<tr>
<td>Eight</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>100 (N=217)</td>
</tr>
</tbody>
</table>

### Table A.2 The Age of the Women

<table>
<thead>
<tr>
<th>Age</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 30 years</td>
<td>6%</td>
</tr>
<tr>
<td>30-39 years</td>
<td>26%</td>
</tr>
<tr>
<td>40-49 years</td>
<td>35%</td>
</tr>
<tr>
<td>50-59 years</td>
<td>28%</td>
</tr>
<tr>
<td>60 or more years</td>
<td>5%</td>
</tr>
<tr>
<td>Total</td>
<td>100 (N=217)</td>
</tr>
</tbody>
</table>

### Table A.3 The Number of Children

<table>
<thead>
<tr>
<th>Number at home</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>18%</td>
</tr>
<tr>
<td>One</td>
<td>18</td>
</tr>
<tr>
<td>Two</td>
<td>33</td>
</tr>
<tr>
<td>Three or more</td>
<td>31</td>
</tr>
<tr>
<td>Total</td>
<td>100 (N=217)</td>
</tr>
</tbody>
</table>

### Table A.4 The Stage in Life Cycle

<table>
<thead>
<tr>
<th>Stage</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No child-adult 40 years or under</td>
<td>2%</td>
</tr>
<tr>
<td>Youngest child under 6 years</td>
<td>19%</td>
</tr>
<tr>
<td>Youngest child 6-12 years</td>
<td>32%</td>
</tr>
<tr>
<td>Youngest child 13-19 years</td>
<td>23%</td>
</tr>
<tr>
<td>Youngest child 20-26 years</td>
<td>7%</td>
</tr>
<tr>
<td>No child-adult over 40 years</td>
<td>17%</td>
</tr>
<tr>
<td>Total</td>
<td>100 (N=217)</td>
</tr>
</tbody>
</table>

---
a. Based upon the age of the youngest child of the respondent.
### Table A.5 The Country of Birth of the Women

<table>
<thead>
<tr>
<th>Area of Birth</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>75%</td>
</tr>
<tr>
<td>British Isles</td>
<td>14%</td>
</tr>
<tr>
<td>W. Europe &amp; Scandinavia</td>
<td>7%</td>
</tr>
<tr>
<td>E. Europe</td>
<td>2%</td>
</tr>
<tr>
<td>Other</td>
<td>2%</td>
</tr>
<tr>
<td>Total</td>
<td>100 (N=217)</td>
</tr>
</tbody>
</table>

### Table A.6 The Education of the Women

<table>
<thead>
<tr>
<th>Last Type Fulltime</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>School</td>
<td></td>
</tr>
<tr>
<td>Elementary</td>
<td>6%</td>
</tr>
<tr>
<td>High School</td>
<td>53%</td>
</tr>
<tr>
<td>Technical/Voca-tional</td>
<td>20%</td>
</tr>
<tr>
<td>University</td>
<td>20%</td>
</tr>
<tr>
<td>No information</td>
<td>1%</td>
</tr>
<tr>
<td>Total</td>
<td>100 (N=217)</td>
</tr>
</tbody>
</table>

### Table A.7 The Employment of the Women

<table>
<thead>
<tr>
<th>Employment</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed (part- or full-time)</td>
<td>29%</td>
</tr>
<tr>
<td>Not employed</td>
<td>71%</td>
</tr>
<tr>
<td>Total</td>
<td>100 (N=217)</td>
</tr>
</tbody>
</table>

### Table A.8 The Occupation\(^a\) of the Women and Their Husbands

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Percent in Each Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women</td>
<td>Husbands</td>
</tr>
<tr>
<td>-----------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Higher executives, major prof.</td>
<td>0%</td>
</tr>
<tr>
<td>Business managers, lesser prof.</td>
<td>6%</td>
</tr>
<tr>
<td>Admin. personnel, owner small business</td>
<td>4%</td>
</tr>
<tr>
<td>Clerical, sales, technical</td>
<td>16%</td>
</tr>
<tr>
<td>Skilled manual work</td>
<td>1%</td>
</tr>
<tr>
<td>Semi and unskilled manual work</td>
<td>2%</td>
</tr>
<tr>
<td>Housewife</td>
<td>71%</td>
</tr>
<tr>
<td>Retired</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

### Table A.9 The Length of Residence of the Women

<table>
<thead>
<tr>
<th>Length of Residence</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-5 years</td>
<td>32%</td>
</tr>
<tr>
<td>6-10 years</td>
<td>29</td>
</tr>
<tr>
<td>11 years or more</td>
<td>39</td>
</tr>
<tr>
<td>Total</td>
<td>100 (N= 217)</td>
</tr>
</tbody>
</table>

### Table A.10 The Women's Intention to Move

<table>
<thead>
<tr>
<th>Plan to Move</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>25%</td>
</tr>
<tr>
<td>No (Maybe)</td>
<td>72</td>
</tr>
<tr>
<td>No information</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>100 (N=217)</td>
</tr>
</tbody>
</table>
APPENDIX B

EXAMPLES OF CONTIGUOUS DWELLING UNITS

- Represents a single family house.
- X Respondent's house.
- 1-9 Contiguous houses.
Questions to Obtain Characteristics of Every Contiguous Neighbour for Each Respondent.

(Give the respondent the map)

Can you tell me who lives in the first residence I have numbered? (Second, etc.)

How long have they lived there?

How old are they?

What are the ages of their children living at home?

Where are they from?

<table>
<thead>
<tr>
<th>Dwelling no. 1</th>
<th>Name</th>
<th>How long have they lived there</th>
<th>Age</th>
<th>Ages of children at home</th>
<th>Where are they from</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

1. This number corresponds to the number of the contiguous dwelling unit on the map for each respondent.
Questions to Obtain Characteristics of Every Contiguous Neighbour for Each Respondent.

What education have they had?

What is their job?

Have you visited or talked with them in the last 7 days? (if necessary specify, that is, since a week ago today)

<table>
<thead>
<tr>
<th>Highest level Education</th>
<th>Occupation</th>
<th>Contact last 7 days</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Check List to Obtain Spatial Relation Between Each Contiguous Dwelling Unit and the Unit of the Respondent.

Check off the combination of barriers separating each contiguous dwelling unit.¹

<table>
<thead>
<tr>
<th>No.2</th>
<th>Yard or Lawn</th>
<th>Physical or symbolic barriers, low shrubs, flower garden</th>
<th>Sight impeding fence, wall, or hedge</th>
<th>Path, lane or unpaved street</th>
<th>Paved street</th>
<th>Busy paved street or railway</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3</td>
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<td>4</td>
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<td>5</td>
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<td>6</td>
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<tr>
<td>7</td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Following the interview, the maps were consulted to determine if the backyards of the respondent's and contiguous neighbour's dwelling units were adjacent.

2. This number corresponds to the number of the contiguous dwelling unit on the map for each respondent.
### APPENDIX D

THE PERCENTAGE DISTRIBUTION OF THE CHARACTERISTICS OF THE CONTIGUOUS NEIGHBOURS

#### Table D.1 The Sampling Areas

<table>
<thead>
<tr>
<th>Area</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>13%</td>
</tr>
<tr>
<td>Two</td>
<td>0</td>
</tr>
<tr>
<td>Three</td>
<td>12</td>
</tr>
<tr>
<td>Four</td>
<td>12</td>
</tr>
<tr>
<td>Five</td>
<td>8</td>
</tr>
<tr>
<td>Six</td>
<td>24</td>
</tr>
<tr>
<td>Seven</td>
<td>22</td>
</tr>
<tr>
<td>Eight</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100 (N=2511)</strong></td>
</tr>
</tbody>
</table>

#### Table D.2 The Age of the Contiguous Neighbours

<table>
<thead>
<tr>
<th>Age</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 30 years</td>
<td>4%</td>
</tr>
<tr>
<td>30-39 years</td>
<td>14</td>
</tr>
<tr>
<td>40-49 years</td>
<td>23</td>
</tr>
<tr>
<td>50-59 years</td>
<td>17</td>
</tr>
<tr>
<td>60 or more years</td>
<td>10</td>
</tr>
<tr>
<td>Respondent does not know</td>
<td>26</td>
</tr>
<tr>
<td>No information</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100 (N=2511)</strong></td>
</tr>
</tbody>
</table>

#### Table D.3 The Number of Children

<table>
<thead>
<tr>
<th>Number at home</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>23%</td>
</tr>
<tr>
<td>One</td>
<td>16</td>
</tr>
<tr>
<td>Two</td>
<td>24</td>
</tr>
<tr>
<td>Three or more</td>
<td>18</td>
</tr>
<tr>
<td>Respondent does not know</td>
<td>16</td>
</tr>
<tr>
<td>No information</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100 (N=2511)</strong></td>
</tr>
</tbody>
</table>

#### Table D.4 The Stage in Life Cycle

<table>
<thead>
<tr>
<th>Stage</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No child-adult 40 years or under</td>
<td>2%</td>
</tr>
<tr>
<td>Youngest child under 6 years</td>
<td>14</td>
</tr>
<tr>
<td>Youngest child 6-12 years</td>
<td>20</td>
</tr>
<tr>
<td>Youngest child 13-19 years</td>
<td>17</td>
</tr>
<tr>
<td>Youngest child 20-26 years</td>
<td>6</td>
</tr>
<tr>
<td>No child-adult over 40 years</td>
<td>21</td>
</tr>
<tr>
<td>Respondent does not know</td>
<td>16</td>
</tr>
<tr>
<td>No information</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100 (N-2511)</strong></td>
</tr>
</tbody>
</table>

*a. Based upon the age of the youngest child of the contiguous neighbour.*
### Table D.5 The Country of Birth of the Contiguous Neighbours

<table>
<thead>
<tr>
<th>Where From</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>35%</td>
</tr>
<tr>
<td>British Isles</td>
<td>8</td>
</tr>
<tr>
<td>W. Europe and Scandinavia</td>
<td>5</td>
</tr>
<tr>
<td>E. Europe</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
</tr>
<tr>
<td>Respondent does not know</td>
<td>43</td>
</tr>
<tr>
<td>No information</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>100 (N=2511)</td>
</tr>
</tbody>
</table>

### Table D.6 The Education of the Contiguous Neighbours

<table>
<thead>
<tr>
<th>Highest level of Education</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary</td>
<td>1%</td>
</tr>
<tr>
<td>High School</td>
<td>10%</td>
</tr>
<tr>
<td>Technical/Vocational</td>
<td>2%</td>
</tr>
<tr>
<td>University</td>
<td>11%</td>
</tr>
<tr>
<td>Respondent does not know</td>
<td>69%</td>
</tr>
<tr>
<td>No information</td>
<td>7%</td>
</tr>
<tr>
<td>Total</td>
<td>100 (N=2511)</td>
</tr>
</tbody>
</table>

### Table D.7 The Employment of the Contiguous Neighbours

<table>
<thead>
<tr>
<th>Employment</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed</td>
<td>36%</td>
</tr>
<tr>
<td>Not Employed</td>
<td>29%</td>
</tr>
<tr>
<td>Respondent does not know</td>
<td>28%</td>
</tr>
<tr>
<td>No information</td>
<td>7%</td>
</tr>
<tr>
<td>Total</td>
<td>100 (N=2511)</td>
</tr>
</tbody>
</table>
Table D.8 The Occupation\textsuperscript{a} of the Contiguous Neighbours

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Percent in Each Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
</tr>
<tr>
<td>Higher executive, major prof.</td>
<td>13%</td>
</tr>
<tr>
<td>Business manager, lesser prof.</td>
<td>10%</td>
</tr>
<tr>
<td>Admin. personnel, owner small business</td>
<td>18%</td>
</tr>
<tr>
<td>Clerical, Sales, technical</td>
<td>6%</td>
</tr>
<tr>
<td>Skilled manual work</td>
<td>12%</td>
</tr>
<tr>
<td>Semi and unskilled manual work</td>
<td>5%</td>
</tr>
<tr>
<td>Housewife</td>
<td>0%</td>
</tr>
<tr>
<td>Retired, student, unemployed</td>
<td>10%</td>
</tr>
<tr>
<td>Respondent does not know</td>
<td>24%</td>
</tr>
<tr>
<td>No information</td>
<td>2%</td>
</tr>
</tbody>
</table>

Total 100 100 100 (N=1071) (N=1131)\textsuperscript{b} (N=2511)

\textsuperscript{a} Based upon Hollingshead's index of social position. Hollingshead, A.B., 1957, Two Factor Index of Social Position. New Haven: Yale Station.

\textsuperscript{b} Male and female number of neighbours does not equal total number due to no information on sex of 309 contiguous neighbours.

Table D.9 The Length of Residence of the Contiguous Neighbours

<table>
<thead>
<tr>
<th>Length of Residence</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-5 years</td>
<td>30%</td>
</tr>
<tr>
<td>6-10 years</td>
<td>19%</td>
</tr>
<tr>
<td>11 years or more</td>
<td>25%</td>
</tr>
<tr>
<td>Respondent does not know</td>
<td>22%</td>
</tr>
<tr>
<td>No information</td>
<td>4%</td>
</tr>
</tbody>
</table>

Total 100 (N=2511)

Table D.10 The Sex of the Contiguous Neighbours

<table>
<thead>
<tr>
<th>Sex</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>43%</td>
</tr>
<tr>
<td>Female</td>
<td>45%</td>
</tr>
<tr>
<td>No information</td>
<td>12%</td>
</tr>
</tbody>
</table>

Total 100 (N=2511)
Table E.1: Casual Visit and Similar-Not Similar Sex

<table>
<thead>
<tr>
<th>Casual Visit</th>
<th>Sex</th>
<th></th>
<th></th>
<th>Total^a</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not Similar</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>162</td>
<td>121</td>
<td></td>
<td>238</td>
</tr>
<tr>
<td>No</td>
<td>48</td>
<td>79</td>
<td></td>
<td>127</td>
</tr>
<tr>
<td>Total</td>
<td>210</td>
<td>200</td>
<td></td>
<td>410</td>
</tr>
</tbody>
</table>

^a. Total number of pairs is not 433 due to missing information for casual visit.
## Appendix F

### Table of Casual Visiting and Functional Distance Controlling Similarity of Sex Status

<table>
<thead>
<tr>
<th>Sex</th>
<th>Similar</th>
<th>Different</th>
<th>Same Street</th>
<th>Different Street</th>
<th>Same Lane Way</th>
<th>Different Lane Way</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>36</td>
<td>29</td>
<td>5</td>
<td>79</td>
<td>22</td>
<td>15</td>
<td>47</td>
</tr>
<tr>
<td>No</td>
<td>44</td>
<td>54</td>
<td>9</td>
<td>9</td>
<td>14</td>
<td>14</td>
<td>160</td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>83</td>
<td>14</td>
<td>121</td>
<td>81</td>
<td>78</td>
<td>207</td>
</tr>
</tbody>
</table>
APPENDIX G

TABLES WITH GAMMA VALUES FOR ALL RELATIONSHIPS IN STUDY

Table G.1 Contact Types and Functional Distance

<table>
<thead>
<tr>
<th>Type of Contact</th>
<th>Gamma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greeting</td>
<td>-.42</td>
</tr>
<tr>
<td>Casual Visit</td>
<td>-.40</td>
</tr>
<tr>
<td>Planned Visit</td>
<td>-.33</td>
</tr>
<tr>
<td>Number of Pairs</td>
<td>2119</td>
</tr>
</tbody>
</table>

a. Total number of pairs is not 2511 due to missing information for both variables.

Table G.2 Contact Types and Respondent's Knowledge of Characteristics of Contiguous Neighbour (Gamma)

<table>
<thead>
<tr>
<th>Type of Contact</th>
<th>Life-Stage of Country</th>
<th>Education</th>
<th>Employment Known</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Age Cycle Birth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greeting</td>
<td>.32 .93 .43 .33</td>
<td>.66</td>
<td>.36</td>
</tr>
<tr>
<td>Casual Visit</td>
<td>.79 .88 .78 .54</td>
<td>.91</td>
<td>.60</td>
</tr>
<tr>
<td>Planned Visit</td>
<td>.65 1.00 .85 .28</td>
<td>.84</td>
<td>.55</td>
</tr>
<tr>
<td>Number of Pairs</td>
<td>2164 2204 2119 2136</td>
<td>2130</td>
<td>2240</td>
</tr>
</tbody>
</table>

a. Each characteristic has 2 categories: Don't Know, Know.

b. If the respondent knows the employment status, she also knows whether a neighbour is a housewife or not.

c. Total number of pairs is not 2511 due to missing information for both variables.
Table G.3 Visiting and Similarity for Each Social Characteristic (Gamma)

<table>
<thead>
<tr>
<th>Social Characteristic</th>
<th>Type of Visit</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Casual</td>
<td>Planned</td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>.38</td>
<td>.30</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>.22</td>
<td>.11</td>
<td></td>
</tr>
<tr>
<td>Age of youngest child</td>
<td>.02</td>
<td>.22</td>
<td></td>
</tr>
<tr>
<td>Country of Birth</td>
<td>.17</td>
<td>-.17</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>.19</td>
<td>.34</td>
<td></td>
</tr>
<tr>
<td>Employment</td>
<td>.17</td>
<td>.14</td>
<td></td>
</tr>
<tr>
<td>Housewife</td>
<td>.26</td>
<td>.47</td>
<td></td>
</tr>
<tr>
<td>Number of Pairs^a</td>
<td>410</td>
<td>410</td>
<td></td>
</tr>
</tbody>
</table>

^a. Total number of pairs is not 433 due to missing cases for dependent variables.

Table G.4 Visiting and Similarity for Particular Combinations of Social Characteristics (Gamma)

<table>
<thead>
<tr>
<th>Combination of Characteristics</th>
<th>Type of Visit</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Casual</td>
<td>Planned</td>
<td></td>
</tr>
<tr>
<td>Sex, employment</td>
<td>.19</td>
<td>.31</td>
<td></td>
</tr>
<tr>
<td>Housewife, age youngest child</td>
<td>.24</td>
<td>.52</td>
<td></td>
</tr>
<tr>
<td>Sex, education, age</td>
<td>.47</td>
<td>.48</td>
<td></td>
</tr>
<tr>
<td>Education, age</td>
<td>.23</td>
<td>.35</td>
<td></td>
</tr>
<tr>
<td>Sex, employment, age youngest child, country</td>
<td>.21</td>
<td>.50</td>
<td></td>
</tr>
<tr>
<td>Number of Pairs^a</td>
<td>410</td>
<td>410</td>
<td></td>
</tr>
</tbody>
</table>

^a. Total number of pairs is not 433 due to missing cases for dependent variable.
Table G.5 Visiting and Number of Similar Social Characteristics

<table>
<thead>
<tr>
<th>Type of Visit</th>
<th>Gamma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Casual</td>
<td>.30</td>
</tr>
<tr>
<td>Planned</td>
<td>.29</td>
</tr>
<tr>
<td>Number of Pairs&lt;sup&gt;a&lt;/sup&gt;</td>
<td>410</td>
</tr>
</tbody>
</table>

<sup>a</sup> Total number of pairs is not 433 due to missing cases for dependent variable.
Table G.6 Contact Types and Functional Distance Controlling Similarity for Each Characteristic (Gamma)

<table>
<thead>
<tr>
<th>Social Characteristic</th>
<th>Type of Contact</th>
<th>Greeting</th>
<th>Casual Visit</th>
<th>Planned Visit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Similar</td>
<td>Not Similar</td>
<td>Similar</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Similar</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td>-.33</td>
<td>-.36</td>
<td>-.13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(200)</td>
<td>(207)</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td>-.46</td>
<td>-.26</td>
<td>-.20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(132)</td>
<td>(275)</td>
<td></td>
</tr>
<tr>
<td>Age of youngest child</td>
<td></td>
<td>-.27</td>
<td>-.37</td>
<td>-.26</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(114)</td>
<td>(293)</td>
<td></td>
</tr>
<tr>
<td>Country of birth</td>
<td></td>
<td>-.16</td>
<td>-.63</td>
<td>-.15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(258)</td>
<td>(149)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td>-.55</td>
<td>-.17</td>
<td>-.22</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(159)</td>
<td>(248)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment</td>
<td></td>
<td>-.44</td>
<td>-.26</td>
<td>-.07</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(183)</td>
<td>(224)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housewife</td>
<td></td>
<td>-.43</td>
<td>-.31</td>
<td>-.16</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(97)</td>
<td>(310)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combination of Characteristics</td>
<td>Type of Contact</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------------------</td>
<td>----------------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td></td>
<td>Greeting</td>
<td></td>
<td>Casual Visit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Similar</td>
<td>Not Similar</td>
<td>Similar</td>
<td>Not Similar</td>
</tr>
<tr>
<td>Sex, employment</td>
<td>-.46</td>
<td>-.29</td>
<td>-.12</td>
<td>-.16</td>
</tr>
<tr>
<td></td>
<td>(125)</td>
<td>(282)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housewife, age young child</td>
<td>.16</td>
<td>-.37</td>
<td>-.53</td>
<td>-.11</td>
</tr>
<tr>
<td></td>
<td>(24)</td>
<td>(383)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex, education, age</td>
<td>-.28</td>
<td>-.35</td>
<td>-.26</td>
<td>-.13</td>
</tr>
<tr>
<td></td>
<td>(26)</td>
<td>(381)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education, age</td>
<td>-.76</td>
<td>-.24</td>
<td>-.14</td>
<td>-.14</td>
</tr>
<tr>
<td></td>
<td>(52)</td>
<td>(355)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex, employment, age young</td>
<td>1.00</td>
<td>-.37</td>
<td>-.65</td>
<td>-.11</td>
</tr>
<tr>
<td>child, country</td>
<td>(25)</td>
<td>(382)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table G.8 Contact Types and Functional Distance Controlling Number of Similar Social Characteristics (Gamma)

<table>
<thead>
<tr>
<th>Number of Characteristics Similar</th>
<th>Type of Contact</th>
<th>Number of Pairs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Greeting</td>
<td>Casual Visit</td>
</tr>
<tr>
<td>None</td>
<td>-.40</td>
<td>.60</td>
</tr>
<tr>
<td>One</td>
<td>-.33</td>
<td>-.14</td>
</tr>
<tr>
<td>Two</td>
<td>-.29</td>
<td>-.07</td>
</tr>
<tr>
<td>Three</td>
<td>-.40</td>
<td>-.20</td>
</tr>
<tr>
<td>Four</td>
<td>-.09</td>
<td>-.13</td>
</tr>
<tr>
<td>Five</td>
<td>-1.00</td>
<td>-.52</td>
</tr>
<tr>
<td>Six</td>
<td>-.25</td>
<td>-.20</td>
</tr>
</tbody>
</table>

a. Number of pairs is not 433 due to missing information for the dependent variables.