ABSTRACT

COMMUNICATION BEHAVIORS AS RELATED TO
INFORMATION CONTROL BEHAVIORS OF
BLACK LOW-INCOME ADULTS

By

Brenda Dervin

The purpose of this study was to explore the relationship of mass media and interpersonal communication behaviors to the information control behaviors of black low-income urban adults. Information control was defined as the use of information to achieve "better" outcomes. The basic theoretic assumption underlying the study was that diverse informational inputs are needed for optimum decision making. It was assumed that high use of television and high in-ghetto gregariousness with their relatively homogeneous content do not carry diverse informational inputs while diversity in interpersonal contact does carry informational variety. On the basis of the theoretic rationale, it was predicted that more optimum information control would be shown by low-income residents who were: (a) low television users; (b) low gregarious: and (c) high in diversity of interpersonal contact.

Respondents were 366 low-income black adults (39% male) living in inner-city Cleveland. A three-stage random probability sample was used. The study was fielded in July 1969 by 15 trained black female interviewers. The questionnaire, pre-tested twice before fielding, took about 45 minutes to complete and consisted of both open- and close-ended items.

The predictor variables were all composite factor scores created by factor analysis: (1) television dependency, 10 measures (e.g., amount of TV viewing yesterday); (2) gregariousness, six measures (e.g., number of interpersonal contacts the extent to which a respondent's daily contacts showed differentness from the in-ghetto norm (e.g., number of different organizations belong to); and (4) newspaper dependency, seven measures (e.g., frequency of newspaper use). The latter variable was used only for post-hoc analyses.

The theoretic criterion variable--information control--was tapped with 33 measures, conceptually divided into five components on the basis of a complexity continuum. These components (from least to most complex) were: (1) awareness of sources of information; (2) awareness of means to achieve outcomes; (3) awareness of criteria for evaluating means; (4) awareness of data which allows the criteria to be used in evaluating means; and (5) past history of outcome achievement. The major decision-making focus of the study was the use of consumer credit. Content analytic procedures were used in creating most of the criterion measures. Operationally, "more optimum" information control was defined, for example, as greater awareness of expert sources of information on credit and greater awareness of objective evidence of credit costs. The basic statistical procedure used was factorial analysis of variance.

Major results included:

(1) High television dependency did not relate to less information control as predicted. High television dependency related to more information control in terms of awareness of sources but did not predict the more complex levels of information control.

(2) High gregariousness did not relate generally to less control. High gregariousness related to greater awareness of sources, regardless of source quality but tended to relate to less information control at the more complex control levels.

(3) High diversity in interpersonal contacts did relate generally to more optimum control at all levels as predicted.

(4) A post-hoc analysis of the relationship of newspaper use to information control suggested that high newspaper use plays a role analogous to diversity of contact in information control.

Discussion of the findings centered on the interactive role of various information systems (e.g., media, establishment, in-ghetto) in providing low-income residents with information for decision making. The findings were discussed in terms of their implications for action programs.

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INTRODUCTION

The focus of this dissertation is on the relationship of communication behaviors to the use of information for control by black urban low-income adults. Within this context, control is defined as an individual's ability to determine the change in his environment, which is necessary or sufficient to reach desirable outcomes. Information is seen as being necessary for the decision making required by this process.

On the surface, it may seem that this is just one more study in an endlessly growing number that set out to prove the poor lack something. Already, we are bombarded with evidence that the poor lack achievement, personal power, the ability to plan for the future, and information on which to make decisions. Here is yet another study which seemingly will suggest that the poor lack information.

An immense amount of research has been done on the poor, particularly since the beginning of the 1960s with the introduction of the "war on poverty." Most of this research has assumed that if somehow we could change the poor, we could eliminate poverty. A growing number of researchers (S. M. Miller 1970, Pearl 1968, 1970; Rainwater 1970a, 1970b) --with whom the present author fully agrees--are suggesting a change of focus to the social system and how that system must be altered.

Very seldom have we seen a focus which suggests that looking at the poor in isolation from the social system can only lead to faulty

conclusions. It is very limiting to say, for example, that the poor lack achievement when they live in a social system which today provides them little opportunity for achievement. It is incomplete to say that the poor lack information when the social system does not make information available to them. Very seldom do we see empirical evidence which suggests that it is not the poor that lack but the society.

A large body of research has also been done on the role of mass media. Only recently, however, do we find a focus on the role of media in providing information for decision making. Here again, the social scientist is due for an indictment. Upon discovering that the poor are appallingly lacking in information, the social scientist has asked "how can we get the poor to read more"? Rarely has the social scientist also asked "how can we improve the information environment"?

The study reported in this dissertation certainly does not answer these indictments. It is hoped, however, that it makes a contribution by delving deeply into the relationship between communication and information used for control. The respondents for this study are low-income black adults. This is not to suggest, however, that only low-income blacks have information problems. It is common knowledge that just about everyone has information problems today in a society in which too much information coexists paradoxically with too few organized methods for dissemination. The general concern here is for all citizens in a highly urban society where information needs are high but little attention has been directed to providing adequate information systems. The specific concern is for one subgroup of citizens who because of their limited material resources suffer most from society's inadequacies.

CHAPTER I

RATIONALE AND HYPOTHESES

Introduction

Considerable national resources are currently being directed to educational and action efforts within America's low-income ghettos. While not often stated explicitly, these efforts have one common goal: increasing the control that any individual participant has over his own destiny--i.e., increasing his capacity to reach more desirable outcomes than he has now. Desired outcomes range all the way from ability to get a better job and get more education to ability to manage limited resources better.

Little attention is given, however, to the conditions necessary for individual control of outcomes. Very often, the assumption is that increased information or awareness of possible "better" outcomes will automatically lead to the choice of these "better" alternatives. The typical poverty practitioner asks: "what media can I use to reach the ghetto resident"? Very seldom does one see these questions: "what can be done with media time even if it is available"? or "is media use the best alternative available for my purpose"? or "what kinds of information do my clients need"? or "is the kind of information my clients need available to them"?

Research, unfortunately, has offered the practitioner very little help.[1] Relatively few studies (as verified by Greenberg and Dervin 1970a, 1970b) have been done on the role of communication in U.S. urban ghettos. Almost none have been done on the role of communication and its relationship to control. The purpose of the field study reported here is to begin to open this area of research and to test some explicit hypotheses about the relationship of communication behaviors to information control behaviors of black urban residents.

Control and Information

The concept of "control." The notions of control presented below come from no one theorist but from bits and pieces included in the writings of many (e.g., Ashby 1952, Ascroft 1969, Berlo 1960, Brown 1961, Bruner, Goodnow and Austin 1962, Cherry 1961, Cofer and Appley 1964, Delgado 1969, Foster 1962, Hebb 1949, Hunt 1963, Inkeles and Smith 1966, Kelley 1955, McGuire 1966, Merton 1957, Miller, Galanter and Pribram 1960, Roling 1960, Rosenberg 1968, Rotter 1966, Zajonc 1968).

An increasing amount of attention is being paid in the literature to the concept of control--control over self, control over others, control over things.[2] If we intersect the views of the many theorists

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[1]The literature review for this chapter covered the years 1959-July 1971 in Journalism Quarterly, Public Opinion Quarterly, Dissertation Abstracts, Psychological Abstracts, Sociological Abstracts, and Poverty and Human Resources Abstracts (since its first publication in 1966). In addition, the search covered five bibliographic and review publications (Danielson and Wilhoit 1967, Paltiel 1966, Tannenbaum and Greenberg 1968, Troldahl, Robeck, and Costello 1965, Woodward 1967).

[2]Indeed, within the last few years, three books have come out with a central focus on some aspect of control (Bandura 1969, Delgado 1969, London 1969). In addition, Rotter's concern with control as a personality

who have focused, at least in part, on the concept, we find a growing consensus on a view of man as an "island of entropy reduction" in a universe of otherwise growing disorder. Man is seen as in a constant state of task orientation. His task: to cope with his world, to increase the control he has over it, to maintain himself within his environment in a relatively steady state of order. Indeed, much of the recent literature posits this need for control as a basic need (or drive) of man.[1]

A distinction must be made at this point, however, between types of control--specifically between "adaptive coping" and "purposive control." In line with the basic premise that man needs to control, adaptive coping is one form of control. Faced with the circumstances of his life, man may maintain the steady state of his system by adapting to it through any number of methods. Among these are retreat, fatalism and use of ritual. These forms of adaptation will be called "adaptive coping" for the purposes of this paper and might best be summarized as defensive yet functional methods of adaptation.

The term adaptive coping is used for these methods to distinguish them from what most theorists really emphasize as control--an individual's power over the change in his environment. Among these activities

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disposition (Rotter 1966, 1971) is gaining increased attention (e.g., Gurin, Gurin, Lao, and Beattie 1969, J. Miller 1970).

[1]It should be noted here that arguments are rampant over the use of terminology. Is control a "need" or a "drive"? Some theorists (e.g., Kelley 1955) prefer to look at man as in a constant state of adaptation in which the notion of drive becomes meaningless. Others (e.g., Brown 1961) refer to the induction of drive states as the motivating force behind human activity. Others skirt the issue entirely by focusing more on the direction and pattern of behavior. This argument is not central to the focus here. The author leans toward accepting Kelley's axiomatic position. Control is taken as a given. The focus is, instead, on its nature and components.

are included the commonly referred to "innovation of new ideas and practices." Indeed, this is the type of control which many theorists call the basic force behind modernization. It is the kind of control which actually places the power of change in the hands of the individual rather than merely lets the individual maintain a "sense of power" over his own destiny. It is the kind of control with which an individual is able to predict and anticipate the relationship between actions and results, events and outcomes, means and ends. It is also the kind of control which a growing number of theorists assume man will potentially take advantage of if the circumstances of life allow. Every man, it is assumed, potentially wants to be in a state of "purposive control" rather than simply "adaptive coping."

The word "potentially" in the last sentence is important. The realities of life are often such that many men are not able to take active control over their own destinies. In these cases, the theorists suggest, the "adaptive coping" forms of control provide man with a means of "maintaining a sense of power" without actually having it. Thus, for example, researchers (Inkeles and Smith 1966, Rogers 1969, Rotter 1966, 1971) find that peasants and ghetto dwellers see themselves as "powerless," have a high belief in "luck," and have a highly fatalistic view of the world. These beliefs are functional for they provide explanations for events while still preserving the basic sense of self-esteem of the individual.

Information: the basis of purposive control. From the writings and research of scientists focusing on systems theory, modernization, and cognitive theory, we find growing agreement on the notion that

"information" is the basic tool of purposive control (e.g., Ascroft 1969, Bruner, Goodnow, and Austin 1962, Cherry 1961, Delgado 1969, Harvey, Hunt, and Schroder 1961, Hunt 1963, Kelley 1955, Lerner 1963, London 1969, Meier 1962, Miller 1965, Roling 1970, Wiener 1954).

Information is what tells the individual that his life can be better than it is now. According to the growing view, human beings are inherently information-processing organisms, acquiring and sifting information in their efforts to gain greater and greater control.

A distinction must be made immediately, however, between types of information. For this distinction, the work of several systems and cognitive theorists is heavily relied upon (e.g., Abelson and Rosenberg 1958, Ackoff 1958, Driver and Streufert 1965, Guilford 1967, Lane and Sears 1964, Meier 1962, Morris 1969, Schroder, Singh 1966).

From these works (Ackoff, in particular), we find preliminary attempts to tackle the difficult problem of distinguishing types of information. In terms of control, it is suggested that the individual does not need just information per se but particular types of information:

1. Information about outcomes. Information which increases awareness of the number of alternative outcomes available in the environment.

2. Information about the value of outcomes. Essentially, this is motivational information which raises the desirability of one outcome over another.

3. Information about ways of reaching outcomes. This would be instructional and interpretive information on alternative means of reaching goals including sources of such information.

4. Information on the evaluation of means. This would also be instructional or interpretive information which helps the individual choose one alternative way of achieving a goal over another.

In essence, then, it is suggested that purposive control requires information (in an information theory sense) that raises the complexity of the environment and then reduces that complexity by allowing the individual to choose between alternative outcomes and alternative means of reaching outcomes. For the purposes of this study, the use of information in the process of purposive control will be called information control.

The notion of information as it applies to purposive control by individuals is not applicable to the individual's cognitive "black box" alone, however. Using a systems orientation, many theorists (e.g., Ascroft 1970, Cherry 1961, Cofer and Appley 1964, Hall and Fagen 1956, Meier 1962, Roling 1970, Watzlawick, Beavin, and Jackson 1967, Wiener 1954) emphasize that the individual is a part of a system. He gets his "information" from the social system in which he lives. Open systems--systems with high interdependence of parts and self-regulatory behaviors which allow monitoring of the environment--are the kind of systems in which the types of information needed for "purposive control" are available. If the system is closed, then there is no import or export of information between the system and the environment. If the information within the system is highly redundant, then no new options for control are opened for the individuals within the system. In essence, then, these notions suggest that a certain level of diversity is needed in interpersonal networks within the social system for the individuals within it to obtain the kinds of information they need for purposive control. Much evidence suggests that both peasant villages and urban ghettos are, in good part, relatively closed systems with low diversity

in interpersonal networks and a resulting information vacuum. This point will be elaborated upon in succeeding sections.

The Information Environment of the Black Urban Ghetto

From the discussion above, two generalizations emerge. In order to achieve purposive control, the individual needs: (a) varied types of information; and (b) a social system within which diverse interpersonal networks allow diverse kinds of information to flow. Yet, the brunt of the available evidence suggest that neither condition is generally met in the black urban ghetto. The evidence will be reviewed briefly below in terms of the three well-supported generalizations that have emerged from the literature.

The black urban ghetto: an electronic village. The research solidly agrees. The major and most important mass medium for the typical urban ghetto resident is television (e.g., Allen 1968, Block 1970, Cassata 1968, Gerson 1966, Greenberg and Dominick 1969a, Greenberg and Dominick 1969b, Greenberg and Dervin 1970a, Greenberg and Hanneman 1970, Mendelsohn 1968, Sargent and Stempel 1968, U.S. Government Kerner Commission 1968).

In one study (Greenberg and Dervin 1970a), the average hours spent viewing television yesterday by low-income blacks was 5.7. Add to this an average of two hours of radio listening per day and high use (in comparison with whites) of phonographs. The picture that emerges is one of an "electronic village" à la McLuhan (1964). The evidence suggests that one-half of a typical 16-hour waking day is spent on electronic media by the average black urban ghetto resident.

Moreover, while print media use is low, the evidence shows that the primary use made of the print media is focused on advertising content.

Not only are black ghetto residents high users of the electronic media (TV, in particular) but they are more likely than whites to believe TV is the most credible, reliable, and important medium. And, they are more likely to believe that the content of television is "realistic" and helpful for solving every-day problems.

Yet, a great deal of theoretical commentary as well as some empirical evidence suggests that television content (and the content of other electronic media and advertising) is a highly homogeneous set emphasizing only one type of information needed for purposive control--information about outcomes (Block 1970, Caplovitz 1963, Chilman 1965, Dordick et al. 1969, Lasswell 1949, Lazarsfeld and Merton 1948, Meier 1962, Mendelsohn 1968, Wade and Schramm 1969). In essence, it is suggested that the electronic media and advertising offer little new information for environmental control. The high redundancy on television, for example, of content emphasizing the acquisition of possessions is, in an information-theory sense, no information whatsoever.

Some empirical evidence supports this notion even though no content analytic studies are available which explicitly prove the point. Block (1960) found his low-income respondents utilized more functional shopping criteria (price over convenience) if they were high print media users. Bontrager (1969) found his low-income respondents who were more aware of community issues cited newspapers more often than television as their first source of information. Donohew and Singh (1969) found

their Appalachian residents were more likely to be adopters of poverty programs if they were both low media users. Greenberg and Parker (1965) found their general population respondents used newspapers for their in-depth explanatory information seeking on the John Kennedy assassination. Wade and Schramm (1969) found that their general population respondents had more accurate information in a number of content areas if they were high print media users. This relationship persisted even with education controlled. From the intersection of these findings, the picture that emerges is one which suggests that print media are providing the in-depth, comprehensive type of information needed for decision making.

These findings are particularly fascinating when juxtaposed with the massive body of development literature from other countries (e.g., Berlo 1968, Lerner 1963, Pye 1963, Rogers 1969) showing that more innovative people are more exposed to the mass media in general. The development research focuses on the mass media and communication, in general, as crucial in the "modernization process." The mass media, it is suggested, increase an individual's vicarious participation in society, which, in turn, leads to increased actual participation.

However, it must be noted that the modernization findings are not really contradictory to the urban ghetto findings. Urban ghetto blacks do indeed show the results of high vicarious participation in "better outcomes." They want better lives, more education, better jobs, more possessions. However, the major source of the typical black ghetto resident's information about these "better outcomes"--television--generally does not provide information about ways and means of reaching these goals.

Actually, several modernization researchers (e.g., Frey 1963, Lerner 1963) warned about the possibility of high overloads of "outcome" information developing in the modernizing nations as their media systems grow. They emphasized the necessity of keeping the "want-get" ratio in balance, suggesting that developers not raise the expectations of their citizens beyond the levels that society could fulfill. Their reason: increased discrepancies between aspirations and achievement lead to frustration, which in turn, lead to a retreat from efforts at purposive control.

Essentially, this is the situation that the research indicates exists in the U.S. black urban ghetto. The difference, however, is that the U.S. media system is already fully developed. The American poor are in the paradoxical position of being highly exposed to an electronic media system designed not for them but for the highly motivated, information-seeking, means-controlling middle class.

The black urban ghetto: scene of inefficient caretaking. In addition to the electronic media (the black ghetto resident's major source of information on the outside world), the ghetto is also serviced by a number of establishment representatives--"caretakers" as Gans (1962) called them. An increasing amount of evidence suggests that these caretakers (social workers, teachers, policemen, politicians) are neither used nor trusted by ghetto residents (e.g., Allen 1968, Block 1970, Caplovitz 1963, Donohew and Singh 1969, Dordick et al. 1969, Greenberg and Dervin 1967, Hibbard 1967, Mendelsohn 1968, Shosteck 1969, Singer 1968a, Singer 1968b, Tussing 1970, U.S. Government Kerner Commission 1968).

Most frequently cited sources of information for almost all everyday problems are "family, friends, and relatives." Professional sources are rarely cited. Indeed, they are often mistrusted and misinterpreted. McIssac and Wilkinson (1965), for example, found welfare recipients had only a vague idea of the reason for caseworker visits. Most welfare recipients saw the caseworker not as a possible source of useful information but as someone who was checking on welfare eligibility. Dordick et al. (1969) found clients of job-training centers erroneously viewed the centers only as sources of employment and not as sources of job training. He blamed this error on lack of adequate communication by the caretakers.

In addition, numerous researchers point out that the caretaking agencies were established by middle-class professionals with middle-class orientations. The agencies operate on a premise of middle-class information-seeking motives and middle-class time schedules. Advertising is rarely used to reach clients. Adjustments are rarely made for the different life styles and psychological orientations of the poor or for the fact that the poor do not understand or operate well within bureaucratic structures. In addition, the research shows that even agencies established with the explicit objective of serving the poor often neglect those clients with the greatest need for services.

Thus, for example, Levin and Taube (1970) found that of 452 female public housing tenants, those tenants who were black, less educated, on welfare, or without male adults at home were less likely to obtain adequate housing services. These same tenants were also less knowledgeable about the bureaucratic power structure of the housing

authority. Levin and Taube (as well as other researchers, e.g., Scott 1967, Sjoberg, Brymer, and Farris 1966) suggest that bureaucratic service agencies are concerned primarily with self-maintenance. The problems of their hard-core clients are not easily solved. In order to maintain a record of successes, the agencies not only ignore the most needy clients, they also prevent these clients from obtaining information about the bureaucratic structure. Access to such information, the researchers suggest, would enable the clients to demand services.

The black urban ghetto: a closed information system. The brunt of the research agrees that energy in the black urban ghetto is focused on group life among family, friends, and peers (e.g., Besner 1965, Caplovitz 1963, Chilman 1965, Clark 1967, Cohen and Hodge 1963, Foskett 1955, Levenstein and Sunley 1968, Lewis 1966, Liebow 1967, Mendelsohn 1968, Minuchin et al. 1967, Roach and Gursslin 1965, Singer 1968a, Singer 1968b, Tussing 1970).

The typical picture that emerges of the ghetto is of an environment in which achievement, success, creativity, and exploration are not valued. In a world of constant failures, the criterion for success is not achievement. Rather, energy is focused on group life, on visiting family and friends, on gossiping, talking about neighborhood and family problems. Formal leadership is low. Participation in organizations is low. Verbal communication is lower than in white communities and the diversity of topics talked about is generally low. The subculture adheres, typically, to a set of psychological orientations not unlike those attributed to peasants in underdeveloped countries (e.g., Banfield 1958, Bose 1962, Rogers 1965, Rogers 1969). Part of this orientation is

high emphasis on illusion, on present time, on immediate reward, on non-achievement, and on non-exploration.

In keeping with this general psychological portrait, information levels within the ghetto are low. Mendelsohn (1968), for example, found that 60% of his low-income respondents lacked information on where to get help for everyday problems. Block (1970) found 60% of his low-income respondents wouldn't ask for advice from anyone on where to buy a television set. Singer (1968a, 1968b) found that while most of his black riot-participators could name their favorite black leader, few had any substantive knowledge of the basis of their leader's expertise. The general picture that emerges, then, is one of low informational levels on instructional types of information--where to get advice, how to evaluate information sources, what means are available for reaching goals, how to evaluate means.[1]

The literature agrees in describing this subcultural pattern--low-information, low-achievement, high emphasis on kinship and friendship networks--as both cause and effect in the vicious cycle of poverty. In one sense, the subculture is a functional adaptive response to a world which does not allow the black to achieve, yet makes the achievements of the major society all too evident via the mass media. To value non-achievement, to place emphasis on illusion, to turn one's energies to

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[1]It is important to emphasize here that lack of information is a problem of not only the poor. Rieger and Anderson (1968), for example, found that 35% of their general population respondents expressed frustration because it was difficult to obtain information on such everyday problems as financial planning, consumer areas, and educational and occupational planning.

group life, to lack information are all functional responses which allow the individual to retain a sense of control over his own life. Events can then be attributed to outside sources. Indeed, as much research has pointed out, this response is not unrealistic. The actual conditions of life in the ghetto are such that the ghetto resident has far less opportunity than the middle class to purposively control his own existence.

In another sense, however, the very existence of such a subculture is dysfunctional to the possibility of increased individual control. The subculture is a closed system, in good part, which doesn't allow new inputs which would allow for increased control. Some research, for example, shows that those who feel "alienated" or low in "power" will actually reject or avoid exposure to available information that would be useful for purposive control (e.g., J. Miller 1970, Seeman 1966).

Other research shows that the kinds of information needed for operation within the subculture are different from that needed for operation within the major society. Thus, several studies (e.g., Gerson 1966, Greenberg and Dervin 1970a, U.S. Government Kerner Commission 1968) have found that low-income blacks more often cite non-establishment sources (in-ghetto residents, non-establishment media) as the origins of their local news and information. Gerson (1966) found that black teenagers more often used the media for norm acquisition (acquiring values about appropriate goals) than white teenagers. However, the more inculcated a black was in the ghetto subculture, the less he used the media for norm acquisition.

These data suggest that the subcultural information net is working counter to the majority society information net. If the

subculture were an isolated village, its closed information net would be a necessary given. However, the subculture is part of the major culture. It is not entirely a closed system. It is peopled by establishment store owners and landlords and by establishment bill collectors and policemen. Ghetto residents work for establishment employers. In short, the livelihood of the ghetto resident depends on his ability to operate not only within his subculture but within the major society as well. However, the subculture itself creates an information vacuum for the kinds of information needed for control in the major society. The diversity of contact which would yield diversity of information does not typically exist.[1] Interpersonal contacts are homogeneous with members all sharing the same modes of operating and coping with their environments.

The black urban ghetto: conclusions on the information system.

By intersecting the findings above, we arrive at the set of empirical generalizations outlined in the introduction to this chapter. In terms of the typical black urban ghetto resident, we find:

1. a non-achievement, non-control, non-information-seeking orientation;

2. a low general level of information;

3. a low level of information in those areas of information control where inputs are needed for operation within the major society--low levels of instructional and motivational information which would allow the choice of better outcomes and evaluation and choice of meanings of reaching these outcomes; and

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[1]It must be mentioned here that the use of family, friends, and relatives as sources of information is greater among all low-income respondents not only black low-income adults (Block 1970, Greenberg and Dervin 1970a, Parker and Paisley 1966).

4. a relatively closed interpersonal contact system which is disconnected from the major society, highly homogeneous, and lacking in the interpersonal diversity which would provide the kinds of information needed for information control.

It must be emphasized at this point, however, that this portrait of the typical black urban ghetto resident is based on statistical averages (and statistical differences between black and white, low-income and middle-income respondents). Evidence does suggest considerable variability exists within the black urban ghetto (Dubey 1969, Miller 1964).

Given that this variability does exist, the black urban ghetto provides a testing ground for a number of hypotheses about the relationship of communication behaviors to information control behaviors.

General Hypotheses

The discussion in the preceding pages points to four crucial classes of variables for a beginning exploration of the relationship of communication behaviors to control behaviors. The first three variable classes consist of communication behaviors--media use, gregariousness, and interpersonal network diversity. These are the predictor variables. The fourth class of variables deals with information control. Measures of information control constitute the criterion variables.

Predictors of information control:

1. Media use. High dependency on television is seen as dysfunctional to information control because of television's highly homogeneous, goal-oriented content. The individual who is highly dependent on television is one who uses television a lot, believes what television tells him, and believes television reflects real life.

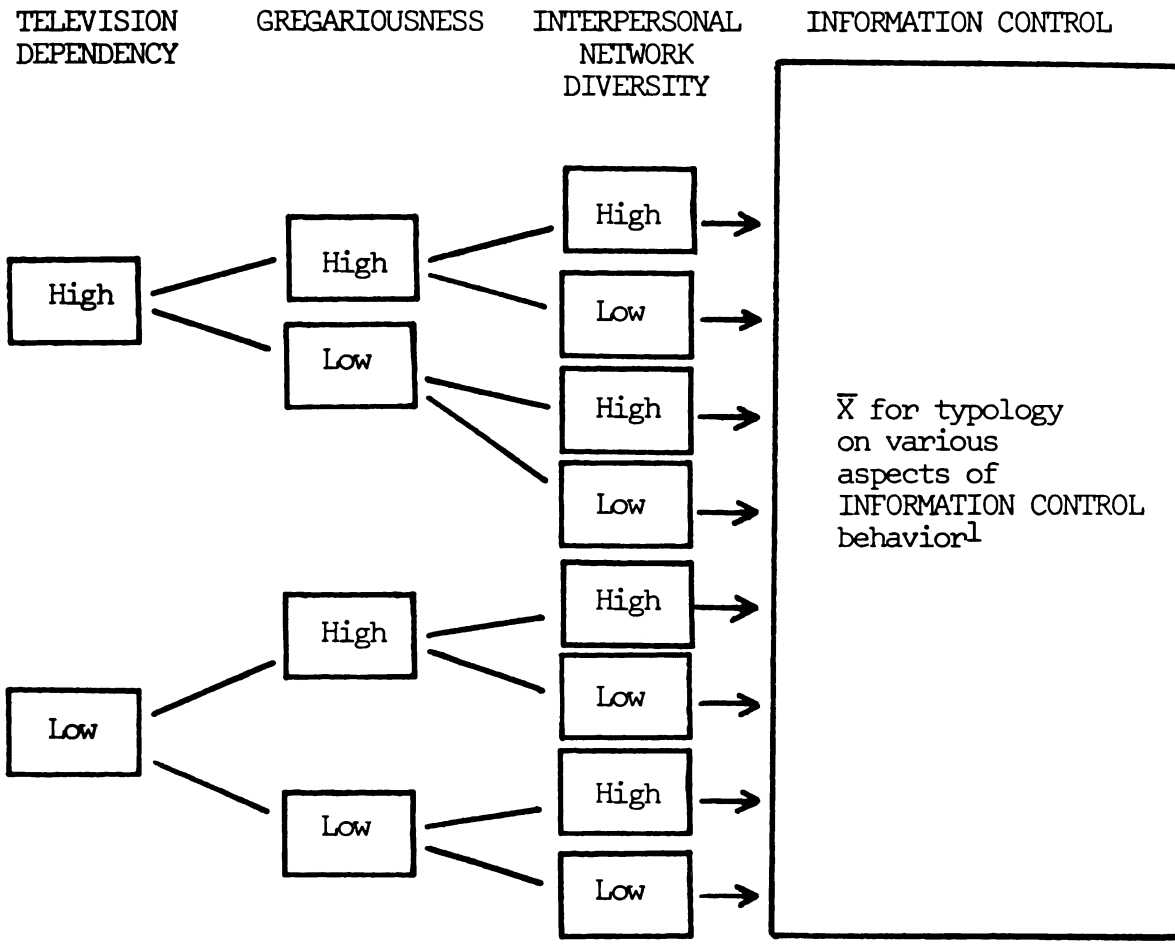
2. Gregariousness. High in-ghetto gregariousness is seen as dysfunctional to information control because it does not provide the diversity of contact needed for diversity of informational inputs. The gregarious individual is one who has many interpersonal contacts on a regular basis. He talks to many friends, relatives, neighbors. Many people visit his home.

3. Interpersonal network diversity. High diversity in interpersonal networks is seen as functional to information control because this diversity allows for more variety in informational inputs and higher likehood that the kinds of information needed for control will be transmitted. The individual with a diverse interpersonal network is one whose regular contacts show variety and structure. He belongs to more and different formal organizations. His daily life takes him further from the ghetto. His interpersonal contacts would more often be non-friends, relatives, neighbors. His contacts would cover a wider geographic spread and more of them would work. More of his contacts would live outside his own home. His conversations with these contacts would cover a wide range of topics. In short, whether he is high or low gregariousness, his interpersonal contacts show differentness and variety.

Information control:

1. Purposive control of one's own destiny is seen as based on information of various types. The types of information needed include not only the readily available information about "better outcomes" but information on means for achieving outcomes, criteria for evaluating means, and sources who can help in the decision process. A more complete explication of information control follows in the next section of this chapter.

On the basis of these core notions, the following research paradigm is suggested:



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[1]It should not be assumed at this point that predictions of information control levels within this model are linear. See the following pages for the specific hypotheses.

Generally, it is hypothesized that:

H_1: Black urban ghetto residents with high dependency on television will have lower levels of information control than black urban ghetto residents with low dependency on television.

H_2: Black urban ghetto residents who are high gregarious will have lower levels of information control than black urban ghetto residents who are low gregarious.

H_3: Black urban ghetto residents with high diversity interpersonal networks will have higher levels of information control than black urban ghetto residents with low diversity interpersonal networks.

These main effect hypotheses are general in the sense that interactions between the three predictors are expected to reverse some of the main effects. Generally, it is hypothesized that Hypothesis 3 will hold under all conditions. In addition, it is expected that diversity will have a mediating impact on Hypothesis 1 and Hypothesis 2. The two interaction hypotheses are:

H_4: Under conditions of low interpersonal network diversity, respondents with low television dependency will show lower levels of information control than respondents with high television dependency. Under conditions of high diversity, Hypothesis 1 will hold.

H_5: Under conditions of low interpersonal network diversity, Hypothesis 2 will hold. Under conditions of high diversity, high gregarious respondents will have higher levels of information control than low gregarious respondents.

Unfortunately, these two interaction hypotheses have little direct support from prior research. Hypothesis 4 is derived by reasoning that the low television-low diversity respondent is essentially an isolate with little opportunity for gaining variety in informational inputs. Hypothesis 5 is based on the reasoning that when a respondent has a diverse interpersonal network, gregariousness should become

functional to information control.

Finally, two hypotheses suggest an interaction between all three predictor variables by identifying those respondents with the expected highest and lowest levels of information control.

H_6: Isolated respondents--those with low television dependency plus low gregariousness plus low diversity--will show the lowest levels of information control.

H_7: Integrated respondents--those with high gregariousness and high interpersonal network diversity--will show the highest levels of information control with low television dependency respondents showing higher control than high television dependency respondents.

Specific Hypotheses

The construct "information control" as explicated in the preceding pages is seen as a multidimensional set of behaviors. The kinds of information needed for control vary from information about the availability of better outcomes to information about means for achieving outcomes and information about ways of evaluating these means. Beyond some general guidelines, prior work does not offer a great deal of help for either explication or prediction. However, the writings of a number of researchers and theorists do provide guidelines for developing a set of components of information control (particularly, Abelson and Rosenberg 1958, Ackoff 1958, Block 1970, Caplovitz 1963, Lane and Sears 1964, Morris 1969, Parker and Paisley 1966, Wade and Schramm 1969).

Generally, the intersection of these writing suggest that in order to achieve purposive control (i.e., achieve better outcomes), the individual needs to be involved in six different information processing components.

1. Attitude toward outcome. The individual needs to have a value for or desire to reach an outcome.

2. Awareness of sources of information. The individual needs to know about sources from whom he can learn of ways to achieve the outcome.[1]

3. Knowledge of means. The individual needs information on alternative means of achieving the outcome.

4. Use of criteria. The individual needs to possess and be able to use a set of criteria (or attributes) with which he can differentiate between and evaluate means.

5. Evaluation of means. The individual needs to have data which allows him to use the criteria in an evaluation process which leads to a choice of one means of reaching the outcome.

6. History of means used in past. The individual needs to apply all of the above in making a final choice of means which yields a "better" outcome.

These, then, are seen as the major components of information control and will serve as the general criterion variables for this study. A full report of the specific operationalizations of both criterion and predictor variables is in Chapter II.

To provide a brief but fuller meaning for the various components of information control, Table 1 lists the components with sample operationalizations. In addition, Table 1 indicates how each component taps information control or respondent ability to use information for control. Thus, for example, for the "awareness of sources of information" component, the individual with a higher level of information control is described as one who is more aware of sources of information, is more likely to cite professional, print media, institutional,

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[1]Evaluation of sources--source credibility--obviously plays a role in this process. This dimension was not included in this study.

Table 1. The components of information control.

Component	Sample operationalization for the outcome "buying consumer goods on credit"	A higher level of this behavior indicates (more/less) ability at using information for control
Attitude toward outcome	How favorable is the respondent toward the use of credit?	less ability
Awareness of sources of information	How many different sources of information can the respondent name?	more ability
	What kind of sources does the respondent name?	
	Professionals - Print media	more ability
	Institutions - Non-profit sources	more ability
	Specific sellers - People	less ability
	In-ghetto sources	less ability
Knowledge of possible means of achieving outcome	How many different possible means for obtaining credit can the respondent name?	more ability
	What kind of means does the respondent name?	
	In-ghetto means	less ability
	"Better" means (as determined by experts)	more ability
Use of criteria for evaluating means	Does the respondent use more functional criteria (as determined by experts) for evaluating means (e.g., price over convenience)?	more ability
Evaluation of means	Does the respondent know which credit source gives the best deal? Does the respondent know what credit costs?	more ability
History of means used for achieving outcome in past	How often has the respondent used credit in the past?	less ability
	Has the respondent used more of the "better" means (as determined by experts)?	more ability

and non-profit sources, and less likely to cite specific sellers, people, and in-ghetto sources. An explanation of specific hypotheses for all the components of information control follows.

Attitude toward outcome. In the conceptualization of the kinds of information needed for control on page 20, a favorable attitude toward the outcome is seen as one of the components--a motivational type of information. In the case of "using credit to obtain consumer good," the majority U.S. culture has generally accepted and highly publicized this outcome. It is an outcome, however, designed by and for middle class citizens with flexible material resources. Given the general societal favorability toward credit, black ghetto residents should reflect this favorability. When this attitude is taken as an index of ability at information control, however, the respondent with a more favorable attitude is seen as having a lower level of information control. The reasoning for this conclusion is supported by consumer researchers (e.g., Caplovitz 1963) who suggest that while credit use is a "better" outcome for middle class citizens it is not for low-income respondents, who typically pay higher credit costs on incomes with less margin for safety. To fit this explanation within the context of the three general hypotheses on page 18, a more favorable attitude toward credit is seen as an index of the "lower levels of information control" predicted by those hypotheses.

Awareness of sources of information. This component taps the individual's awareness of where he can get information on the desired outcome. In addition to general awareness of sources in terms of quantity, the quality of awareness is part of this component.

Individuals with "higher levels of information control" are seen as those who generally are more aware of sources. In addition, it is expected that these individuals will cite more professional, print media, institutional, and non-profit sources. On the other hand, individuals with "higher levels of control" are expected to cite fewer specific sellers (profit-making sources), fewer people, and fewer in-ghetto sources in comparison with individuals with "lower levels of control."

Knowledge of possible means of achieving outcome. This component taps the individual's awareness of various means of achieving the desired outcome. It is expected that individuals with "higher levels of information control" will be less likely to cite in-ghetto means and more likely to cite those means which are judged by "experts" as being "better."

Use of criteria for evaluating means. In order to choose between the various alternative means, the individual needs criteria for judgment. It is expected that individuals with "higher levels of information control" will be more likely to cite functional criteria for evaluation.

Evaluation of means. While the individual may know about means and have a set of criteria, in order to make a full choice he needs data on how the various means compare on the criteria. This component can more generally be thought of as factual knowledge level. It is expected that individuals with "higher levels of control" will have more data for the evaluation of means.

History of means used for achieving outcome in past. Generally, it is expected that the individual's history of achieving the outcome

in the past will reflect his ability at information control. Thus, the individual with a "higher level of information control" should have more often used "better" means (as determined by "experts"). In the specific case of consumer credit, it is also expected that the individual with a "higher level of information control" would have used credit less often in the past.

CHAPTER II

METHODOLOGY

The data used for the analysis in the dissertation was collected in a field study from July 23-August 2, 1969 in the inner city of Cleveland.[1] This chapter details all procedures of the actual field survey--questionnaire development and pre-testing, sampling, and questionnaire administration. In addition, this chapter reports procedures used for getting data into machine readable form. Finally, this chapter reports the procedures specific to this dissertation--measurement and indexing of variables and statistical analyses.

Questionnaire Development and Pre-testing

The questionnaire was developed in April 1969 to tap a broad range of interpersonal and mass communication behaviors as they related to the low-income black adult's facility to cope with various aspects of his environment. The questionnaire was pre-tested twice with black low-income adults in order to improve field administration style, item wording, and check on item variances. Interviewers for the pre-test administrations were Michigan State University undergraduate students who were trained in a four hour session prior to the pre-tests and

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[1]The preparation for and actual administration of the field survey was supervised by Dr. Bradley Greenberg. The present author and John Bowes worked cooperatively on all aspects of the survey.

thoroughly de-briefed after each pre-test. Respondents for the pre-tests were low-income black adults living on the 10 blocks in Lansing, Michigan with the highest concentration of low-income residents. These blocks were judgmentally selected on the basis of data collected in a study of low-income adults in Lansing in 1969 (see Greenberg and Dervin 1970b for sampling design of that study). In all, 32 respondents were interviewed for the first pre-test, 16 for the second pre-test. The final questionnaire was 25 pages long, including a combination of open- and closed-ended questions. The questionnaire was designed for administration by trained black interviewers and took an average of 45 minutes to complete with a respondent.[1] Full details on actual items and measurements for the variables in this study are included in a later section of this chapter.

Survey Site and Sampling of Respondents

The survey site chosen for this study was the inner city of Cleveland, Ohio. The site was chosen for a combination of theoretical and practical reasons. The main purpose was to select a large U.S. city with a sizeable black population. Cleveland met this criteria with a black population constituting 14% of its 876,050 residents in 1960 (U.S. Bureau of Census 1961).[2] For practical reasons, Cleveland was chosen

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[1] Readers interested in seeing a copy of the complete questionnaire may contact the author at Syracuse University.

[2] By the 1970 census, the proportion of blacks in Cleveland had risen to 38% of the 750,903 city residents (U.S. Bureau of Census 1971).

because the research team found a black-run marketing firm in the city that was ideally suited for subcontracting some of the field administration problems.

Sampling of respondents for this study was completed in July 1969 and is fully described in Appendix A. Briefly, sampling was completed in three stages: (1) 1960 census and social agency data were used to define the boundaries of the black urban ghetto or the sampling frame; (2) blocks within these boundaries were drawn randomly into the sample with the probability of block selection being proportionate to block population; and (3) an average of 10-11 respondents were interviewed on each block with their selection being determined by a random starting point and a skip interval proportionate to block population. Actual respondent selection was determined primarily on an at-home basis with the interviewer interviewing the eligible adult who was home. If more than one eligible adult was home, then interviewers used a systematic procedure (included in Appendix A) for respondent selection.

Eligible respondents for this study were black adults, ages 21-60. In all, 366 interviews were completed. Roughly two contacts were made for each interview obtained. In all, 706 stops were made by interviewers at different households with 52% of these stops resulting in completed interviews, 36% no answer or vacant households, 6% ineligible respondents, and 6% refusals.

In addition to information on the sampling procedures, Appendix A includes tables which check the quality of the sample. Tables 24 and 25, in particular, compare the demographic characteristics of sample households and respondents to census data. Briefly, these comparisons

show that the sample exhibits those characteristics in comparison with census general population adults that prior research has shown should be found in a low-income population. In particular, the following characteristics clearly indicate the quality of the low-income sample.

1. Twenty-seven per cent of the sample households had only female heads compared with 9% of the total Cleveland population.

2. Fifty-nine per cent of the sample households were two-parent families compared with 88% of the total population.

3. Twenty-three per cent of the sample households had no wage earners compared with 6% of the total population.

4. Thirty-nine per cent of the sample households indicated yearly incomes under $5000 compared with 17% of the general population.

5. Twenty-nine per cent of the sample households had 6 or more members compared with 12% of the general population.

6. Eight per cent of the sample respondents had one or more years of college compared with 18% of the total population.

7. Fifty per cent of the sample respondents were employed compared with 62% of the general population.

8. Thirty-seven per cent of the sample respondents who worked had jobs with low prestige compared with 14% of the general population.

Questionnaire Administration

Interviewers. The three members of the survey development team supervised the actual administration of the field work. A black-run marketing firm in Cleveland was subcontracted to hire the interviewers and an interviewer supervisor. In all, 15 interviewers and one supervisor were hired. All were black female residents of Cleveland; most were school teachers on summer vacation. Eight of the interviewers

spent 9 days in the field; 7 interviewed for only 5 days.

All interviewers were trained in a one-day session prior to doing field work. The training session was comprehensive, including the following.[1]

1. Practice with the questionnaire including role-playing and a test interview with respondents living within the sampling frame but not selected into the sample.

2. A review of the problems of interviewing and the biases which interviewers can unknowingly introduce.

3. An item-by-item review of the questionnaire using the experiences of the pre-tests in Lansing to prepare interviews to cope with any problems from respondents.

4. Practice in how to introduce the survey to potential respondents and how to build respondent trust.

5. Practice in the sampling procedures (selection of households and respondents) carried out in the field.

Actual interviewing days were Tuesday through Saturday.[2] Interviewers worked from 9 a.m. to 5 p.m. On the average, interviewers completed 3.5 interviews a day.

Interview validation. Validation of interviews was completed by phone by the interviewer supervisor. Each interviewer was requested to obtain from her respondents household phone numbers "in case some questions needed to be re-checked." At the end of each day's interviewing, one questionnaire from each interviewer's total for the day was

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[1]Backstrom and Hursh (1963) was heavily relied upon for developing interviewer training procedures.

[2]Interviewing was done on these days because the questions on television viewing asked what programs respondents watched "yesterday." Interviewing on Tuesday through Saturday provided television data for Monday through Friday.

randomly drawn for validation purposes. A sizeable number of respondents did not have phones, so validation interviews were actually drawn from a sub-sample of the total interviews obtained.

In all, 78 interviews were validated or 21.3% of the 366 total interviews completed. For a given interviewer who worked five days, three-five interviews were validated; for a given interviewer who worked nine days, four-nine interviews were validated.

Validations were completed within two-three days of the actual interview date. Each validation consisted of two parts: (a) a check of whether the designated respondent had been interviewed, including a check on respondent age and sex; and (b) a check on the answers to four randomly selected items from the questionnaire. For the item check, validation items were redrawn after each days' interviewing so the actual items checked varied day by day. Only closed-ended, quantitative items were chosen for validation.

Results on the check of respondents showed that in 73 (94%) of the 79 checks, the respondent was interviewed and respondent age and sex agreed with what the interviewer recorded. For the remaining five checks, three could not be completed because phones had been disconnected or were recorded incorrectly. Two households refused to give information for validation purposes.

Results on the item checks showed that these checks were done for 71 interviews. In addition to the five respondents who could not be reached, another two respondents were unavailable even though another household member said the interview had been conducted. In total, then, 284 items were validated (71 interviews x 4 items per interview).

In order to check agreement between the interviewer's recording of a quantitative code on an item and the validation check results, the Percentage Agreement Index was used (Stempel 1955). Using agreement on exact codes as the criterion, 246 or 87% of the items checked out. With a looser criterion of agreement within one point on a response scale, 269 or 95% of the items checked out.

Data Coding

The entire questionnaire including both closed and open-ended items was coded into numerals and transferred onto IBM cards for machine analysis. Since approximately fifty per cent of the questionnaire involved open-ended items, preliminary content analytic coding schemes were developed prior to the coding operation. These content analysis schemes were preliminary in the sense that their purpose, at this stage, was to turn all answers in the questionnaire into numerals. The coding schemes which resulted at this stage were primarily qualitative. Quantitative coding schemes were developed later and completed by computer. In developing the original coding schemes, the development was completed on open-ended responses from the complete sample. This precision was needed because of the complexity of the coding schemes and the number of indexes that were eventually derived.

For the initial coding, a team of 13 coders and two supervisors all with prior experience in coding worked together. Each coder worked on approximately one-thirteenth of the 366 completed questionnaires at a given time. Questionnaires were assigned to coders in sequential order of respondent number with the assignment of a respondent block being done

randomly. Each item in the questionnaire was coded at one time until the operation was completed for that item across all respondents. Training for each item was given immediately prior to the coding operation for that item.

The check on inter-coder agreement used for all items was Stempel's (1955) Percentage Agreement Index: number of times two coders agreed divided by number of checks made. For the reliability checks, a systematic sample (every nth respondent) of 60 respondent questionnaires was recoded by the coding supervisors. The criterion set for coding reliability was 90% agreement. Taking the final coding reliability figures on only the variables used in this study, 71 of the 77 variables had interjudge reliabilities of 90% or above; the remaining six had reliabilities of 83-85%. The six measures which fell below 90% all involved content analyses of sources named by respondents. The criterion for agreement on all measures was agreement to an exact code. The specific interjudge reliabilities for each measure are reported in Appendices C through G.

Measurement of Variables

A total of 77 different variables were created for the purposes of this study. Appendices B through G describe the measurement procedures used in detail. Only a brief description of these procedures will be given here.

General procedures used. Appendix B--"Introduction to Measurement Procedures Used"--elaborates the general procedures used in creating all variables. The procedures were developed to match the particular

measurement problems of this study--(a) the need to obtain variance from a relatively homogeneous sample; and (b) the need to obtain more reliable, sensitive measures than are normally used in poverty research. Generally, poverty research with an emphasis on communication has been concerned with comparisons of the poor with general population adults. The variance problem is not acute in these comparisons of two groups which are very different from each other. In addition, predictions in this prior work have generally been based on the relationship of gross socioeconomic or racial variables to communication behaviors. Here, in a relatively homogeneous population, the concern is the relationship of communication behaviors to information control behaviors. For these reasons, it was felt that more elaborate measurement procedures were needed for this study. In addition, the fact that prior research offered few guidelines for measurement meant that much of the measurement work reported here is, in part, exploratory.

In order to meet the measurement demands of this study, a general procedure was followed in which as many measures of a particular class of behaviors were developed as was feasible. In the terms of the design presented in Chapter I, the number of measures created to tap each class of variables in that design were:

Television dependency - a single index consisting of factor scores resulting from a factor analysis of 10 measures.

Gregariousness - a single index consisting of factor scores resulting from a factor analysis of 6 measures.

Interpersonal network diversity - a single index consisting of factor scores resulting from a factor analysis of 15 measures.

Information control--a set of 33 measures tapping the various components of information control as explicated in Chapter I.

Television dependency, gregariousness, and interpersonal network diversity are the "predictor variables"; information control measures are the "criterion variables." In addition to these measures, one additional predictor variable--newspaper dependency--was created for post hoc analysis.[1] This single index consisted of factor scores resulting from a factor analysis of seven measures. This additional predictor was added in order to allow for a comparison of the role of television versus newspapers in information control.

An additional six criterion measures were also created. These dealt with demography and allowed for a check of whether demographic characteristics might be accounted for the results.

To arrive at this set of 77 variables, the following procedures were used.

1. Elimination of non-responses. Prior to any indexing procedures, a total of 175 different measures were developed for use in this study. Individual measures with non-responses at or below two per cent has their non-responses recoded to the mean or some logical value.

2. Quantitative content analyses. All qualitative content analyses were transformed into quantitative terms by computer with a check of the computations being completed on a 10% sample of the respondents. Approximately 50% of the 175 measures were based on content analysis.

3. Reduction of items by indexing. The 175 different measures were reduced to the 77 used in this study by indexing. At

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[1]Since the fourth predictor--newspaper dependency--was not dealt with in Chapter I with the hypotheses statements, no mention of the variable is made in Chapter III on results. The role of newspapers in information control is discussed only in Chapter V.

this stage, indexing was completed by summing scores across items. Prior to indexing, correlation matrixes were run for each set of items being indexed. As an additional check on the homogeneity or internal consistency of measures, an odd-even split half reliability measure was computed.

At this stage, the development of the 39 criterion variables was complete. The final four predictor variables were then created by factor analyzing the measures in each predictor variable class.[1] Factor analysis was used as a measurement tool because it was felt that it handled most of the measurement problems of this study. Namely, factor analysis was a means of deriving a relatively homogeneous set of variables which conceptually tapped each predictor class. In addition, factor analysis alleviated the problem of unequal variances and code ranges in indexing measures, thus preventing a given measure from getting undue weight in the final index because of measurement artifacts. Factor analysis also provided a statistical means of determining which items actually deserved greater weight in an index. The factor analysis procedures used are described in detail in Appendix B. Below is a brief description of the five classes of variables developed for this study. The final variable count, after indexing and factor analysis was 43, including four different predictor variables and 39 criterion variables.

The measurement of television dependency. To create the final index of television dependency, 10 different measures were factor analyzed. Before each factor analysis for this study was completed, a theoretical decision was made as to which variable in the set was the "most central" measure, the measure which had the best conceptual fit to the meaning of the predictor variable as explicated in Chapter I.[2] The factor chosen to

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[1]Factor analysis was not used as a means of reducing the number of criterion variables for several reasons. First, it was felt that in an initial exploration of information control it would be more useful to focus on each criterion variable individually. While this process makes analysis more complex, it provides more data on which to refine the concept of information control for future work. Secondly, the exploratory nature of the measurement of the information control variables meant that many of the measures were not operationally independent.

[2]See Appendix B for a full description of procedures used for factor analysis.

tap a predictor variable was the one on which this "central" measure loaded highest. The measure "amount of television viewing yesterday" was considered the "central" measure in this set. Other measures included: number of favorite TV shows, number of TV sets owned, frequency of respondent talking about TV shows in general, frequency of respondent talking about specific types of TV shows, respondent opinion on whether TV ads tell the truth, and whether the respondent wants to buy things he sees advertised on TV. In addition, two measures in this category were based on a content analysis of the respondent's favorite TV shows. One indicated the number of categories in which respondent favorite TV shows fell. The other tapped the diversity of respondent favorite TV shows by dividing number of favorite TV show categories by total favorite TV shows named. Full details on actual operationalizations as well as the factor analyses in this predictor variable class are in Appendix C.

The measurement of newspaper dependency. This predictor variable class was added to this study for purposes of post hoc analyses, in particular a comparison of the role of television versus newspapers in information control. To create the final index of newspaper dependency, seven different measures were factor analyzed. The central measure in the set was considered to be "frequency of newspaper reading." Additional measures included: number of daily newspapers read, number of newspaper sections read, number of black magazines and newspapers read, and whether respondent felt newspaper ads tell the truth. Two additional measures tapped the number of newspaper categories in which respondent reading fell. A full description of the measurement of this predictor class is included in Appendix G.

The measurement of gregariousness. To create the final index of gregariousness, six different measures were factor analyzed. The measure "total interpersonal contacts yesterday and in three topic areas" was considered central to this set. Other measures included: number of people talked to on block in last week, number of close friends talked to last week, number of relatives talked to almost every week, number of co-workers talked to during usual working day, and frequency others visit respondent home. Full details on actual operationalizations as well as the factor analyses are included in Appendix D.

The measurement of interpersonal network diversity. To create a final measure of diversity, 15 different measures were factor analyzed. The measures seen as central to this predictor class were: distance respondent traveled to work, respondent organizational memberships, and respondent cosmopoliteness. All other measures in this class were based on an analysis of a maximum of six contacts the respondent spoke with "yesterday." The intent of the analysis was to determine how "different" these contacts were or how much variety they showed. Measures were developed to tap the diversity of these contacts in terms of these characteristics: sex, topics talked about, location of interaction, whether contacts were outside the peer-kinship net, whether contacts worked, an average distance from respondent home to contact home. Full details on actual operationalizations as well as factor analysis procedures are included in Appendix E.

The measurement of information control. In total, 33 different measures of information control were created as the criterion variables for this study. These measures were developed to tap the components of

information control explicated in Chapter I. In Chapter I, the components of information control were all linked to outcomes, e.g., "getting a good job," "getting credit to buy things." For most of the information control measures developed for this study, the outcome implied is "getting credit to buy things." This outcome was used because prior research suggests it as a pressing problem among the poor. In addition, it is an outcome for which objective evidence defining what is a "better outcome" exists. Thus, for example, it is possible to analyze whether respondents are aware of "credit costs" and, thereby, measure whether they are achieving objectively determined "better" outcomes. The measures of information control included the following, listed by component class.

1. Attitude toward outcome. One measure was developed to tap this component--attitude toward using credit and borrowing money to buy things.

2. Awareness of information sources. Nineteen different measures were developed to tap this component. Over half of these tap respondent past use of sources--pastor, teacher, civil rights leader, lawyer, doctor, public housing agency, social worker, co-worker, public health agency. The remaining eight measures tap sources named by respondents for information on 10 hypothethical problems. Sample problems included: finding a place to live, finding a new doctor, and helping a friend in trouble with the police. The measures created include total sources named, number of print media named, number of stores, number of people, number of institutions, number of professionals, number of in-ghetto sources, and number of service organization sources.

3. Knowledge of means to achieve outcome. Three measures were developed to tap this component of information control. All deal with the respondent's ability to name different institutions which provide credit. One measure is simply the number of means named; another taps the number of in-ghetto means named. The final measure taps whether the respondent named a "bank," the means considered by experts to be one of the better alternatives.

4. Use of criteria for evaluation. This component deals with the respondents use of criteria (or attributes) for

evaluating means. The measures here deal with the criteria respondents used for evaluating means of getting credit. An overall measure of the respondent's discrepancy from "expert" use of such criteria is included. In addition, respondent importance ranks of two criteria--"friendly" and "gives good deal"are included.

5. Evaluation of means. This component essentially taps the respondent's knowledge about means. In this case, the measures include his knowledge of credit rates and the discrepancy of his comparison of means in terms of which credit institution "gives the best deal" from an expert evaluation. An additional measure is the discrepancy between the respondent evaluation of means and the normative evaluation based on the sample average.

6. History of means used in past. This component of information control deals with the "outcomes" respondents have achieved in the past. Three of the measures here deal with the "getting credit" outcome and include frequency of respondent credit use, frequency of use of in-ghetto credit sources, and number of charge accounts respondent has. An additional measure deals with the outcome "getting your voice heard" and taps the extent of the respondent's involvement in political activities.

In addition to the 33 measures tapping information control behaviors, an additional six criterion variables are included in this study. These were demographic variables--age, sex, education, family size, socioeconomic status, and whether the respondent has a marginal income source (social security, welfare, or unemployment insurance). A full report of procedures for measuring each of these criterion variables--39 in all--is included in Appendix F.

As a final note on measurement, it should be emphasized that the purpose of this particular study is that of hypothesis testing not description. There is, however, a great deal of descriptive data about the communication behaviors of the poor imbedded within this study. An effort has been made to include some descriptive commentary in the Appendices. Later reports on this same set of data will emphasize the descriptive

aspects.[1]

Statistical Analyses

Analyses of variance. The statement of the hypotheses in Chapter I calls for the use of analysis of variance as a hypothesis testing procedure.[2] For all analyses, a 2 x 2 x 2 factorial design, fixed constant model was used. The error term used for all significance tests was residual sum of squares. To complete the analyses, the predictor variables were split empirically at the median with one-half the respondents assigned to "high" cells for that predictor and one-half assigned to "low" cells. Since computer analysis required equal cell n's, respondents were deleted randomly from cells until n's were equal.

Since a significant F within an analysis of variance table does not pinpoint the source of the significance, comparisons of means within the table were completed (providing one or more Fs in the entire table were significant). There is considerable disagreement about what procedure should be used to test the significance of these within-table comparisons. The least conservative alternative is a Student's t; the most conservative Scheffe's test. Scheffe's is recommended for "data-snooping" types of inquiries and is based on the notion that the researcher is potentially making all possible comparisons. The critical values of the F statistic for Scheffe's, therefore, are higher than on other tests. Since the

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[1] A preliminary descriptive report on the marginal frequency distributions for all items in the original questionnaire is available (Greenberg, Bowes, and Dervin 1970).

[2] References used on analysis of variance included Dunn 1961, Edwards 1967, Katzer 1971, Linquist 1953, Scheffe 1953, Winer 1962. Specific references used for computer operations included Dixon 1965, Veldman 1967.

within table comparisons planned for this study were all based on a priori stated hypotheses, a compromise procedure was selected--Dunn's multiple comparison of means, which is designed specifically for only a sub-set of all possible comparisons, this sub-set being guided by a priori hypotheses (Dunn 1961). The mean difference test formula for Dunn's is mathematically the same as the Scheffe test. Dunn, however, calls her resulting statistic "c" and uses special tables for determining the significance obtained. These tables are reported in her 1961 article. In the tables, critical values of "c" become higher as the number of different comparisons being made between means goes up. For the analysis reported here, seven major within table comparisons were planned a priori. Thus, the critical values for "c" are 2.69 ($p<.05$) and 3.19 ($p<.01$). Each of these seven comparisons is planned to explicitly test some aspects of the hypotheses stated in Chapter I.

A figure of the basic analysis of variance plan will help clarify the procedures used.

	High Diversity		Low Diversity	
	High Greg.	Low Greg.	High Greg.	Low Greg.
High TV	a	b	c	d
Low TV	e	f	g	h

In terms of the cell means labeled a through h, the seven comparisons made on all tables were as follows.

1. To test Hypothesis 4, high TV respondents were compared with low TV respondents under both high and low diversity. This test involves comparing means a+b to e+f and means c+d to g+h.

2. To test Hypothesis 5, high gregarious respondents were compared with low gregarious respondents under both high

and low diversity. This test involves comparing means a+e to b+f and means c+g to d+h.

3. To test Hypothesis 6, isolated respondents (low TV, gregariousness, and diversity) were compared to respondents in all other cells combined. This test involves comparing mean h to means a+b+c+d+e+f+g.

4. To test Hypothesis 7, integrated respondents (high gregariousness and diversity) were compared to all other respondents. This test involved comparing means a+e to means b+c+d+f+g. To test whether low TV integrated respondents differed from high TV integrated respondents, mean a was compared to mean e.

These, then, are the basic seven comparisons among means within the table. The main effect hypotheses (H_1, H_2, and H_3) were tested by the analysis of variance Fs.

In some cases, none of the above within table tests clearly pointed the source of differences, yet a visual check of the means indicated possible partial support or reversals. In these cases, further tests (a maximum of 12 on any given table) were completed. For these second-cut within table comparisons, more conservative critical values of "c" were required. The maximum number of total comparisons completed on a table was 19 (the seven comparisons planned above plus 12 additional comparisons to pinpoint differences). If one or more additional comparisons over the seven basic comparisons was completed, the critical value for "c" was set for 3.02 ($p<.05$) and 3.48 ($p<.01$). These critical values assume that the maximum number of comparisons--19--were made.

Multiple Regressions.[1] As a statistical model, analysis of variance has the advantage of not assuming linear relationships among

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[1]General references on regression included Katzer 1971, McNemar 1962. The specific reference used for computer analysis was Nie, Bent, and Hull 1970.

predictor and criterion variables. The model has several disadvantages, however,: (a) it requires collapsing of predictor variables; (b) it usually lacks parsimony as an explanatory tool; and (c) no single statement of the social significance of the results (one statement of variance accounted for in the criterion variable) can easily be made. Multiple regression, on the other hand, assumes linear relationships but alleviates many of the disadvantages of analysis of variance. For this reason, the multiple regression model was used in addition to analysis of variance in this study. Significance tests of single Pearson product moment correlations were completed using the r to z transformation method (McNemar 1962). The multiple regression procedure used was one in which all predictor variables were included in the multiple regression equation. Significance tests on the Multiple Rs were performed using the F statistic.

General procedures for all analyses. All statistical analyses were performed by computer with a check done by hand on five per cent of the results. All statistical tests were two-tailed with the criterion alpha level set at $p<.05$.

Relationship Between the Predictor Variables

While the problem is not discussed earlier in Chapter II, a major concern in any study using three communication variables as predictors is whether the predictor variables are related or independent of each other. This is particularly important in the use of analysis of variance because to the extent that the predictor variables are related, cell n's will become more and more unequal. Table 2 shows the significance tests of the relationships between the predictor variables. Chi-square tests were performed on all distributions which resulted from the assignment of

Table 7. Significance tests of the relationships between the predictor variables.

Predictor variable 1	Predictor variable 2			Chi-square[1] X^2	df	p	r
Television dependency	Gregariousness			2.46	1	n.s.	.12(p<.01)
	High	Low					
High	99	84	n = 183				
Low	84	99	n = 183				
Television dependency	Diversity			.27	1	n.s.	-.09(n.s.)
	High	Low					
High	89	94	n = 183				
Low	94	89	n = 183				
Gregariousness	Diversity			.54	1	n.s.	.11(p<.01)
	High	Low					
High	95	88	n = 183				
Low	88	95	n = 183				
Newspaper dependency	Television dependency			2.46	1	n.s.	.06(n.s.)
	High	Low					
High	99	84	n = 183				
Low	84	99	n = 183				
Newspaper dependency	Gregariousness			.89	1	n.s.	.01(n.s.)
	High	Low					
High	96	87	n = 183				
Low	87	96	n = 183				
Newspaper dependency	Diversity			.89	1	n.s.	.11(p<.01)
	High	Low					
High	96	87	n = 183				
Low	87	96	n = 183				

[1]The Chi-square tests were completed on distributions which resulted from the assignment of respondent to analysis of variance cells. The r's were computed on the continuous values of all variables.

respondents to analysis of variance cells. Results show that while cell n's are unequal, none of the resulting X^2 are significant. Comparable tests were completed on the full continuous distributions of the predictor variables using Pearson product moment correlations. Results here show that television dependency has a correlation of .12 ($p<.01$) with gregariousness and gregariousness has a correlation of .11 ($p<.01$) with diversity. In addition, the fourth predictor variable added for post hoc analyses has a correlation of .11 ($p<.01$) with diversity. None of the other correlations are significant.

These results show that the relationship between predictors presents little problem for analysis of variance procedures. In addition, while there are some significances between predictors in terms of correlations, the magnitudes of the correlations are small.

Effect of Missing Data on Analyses

Five of the criterion variables in this study had missing data for 24 or more respondents. Ordinarily, the problem would not be of concern as the respondents would simply be deleted from the respective analyses. In this case, however, the missing data occurred on variables which conceptually fit within two components of information control, both of these requiring more information processing skills on the part of respondents. For this reason, an analysis was made to determine if respondents with missing data were significantly more likely to be high television dependency, high gregarious, high diversity, or high newpaper dependency. To the extent that significance is found in these relationships, it is possible to conclude that bias was introduced into analyses as a result

of missing data.

In actual practice, respondents with one or more variables with missing data were deleted from all analyses on the five variables indicated. In all, 52 respondents were deleted. Table 3 shows the results of the Chi-square tests.

Table 3. Chi-square significance tests on the distribution of criterion variable missing data respondents in terms of the four predictor variables.

Predictor variable	Level High	Low		Chi-square X^2	df	p
Television dependency	21	31	n = 52	1.92	1	n.s.
Gregariousness	24	28	n = 52	.31	1	n.s.
Diversity	30	22	n = 52	1.23	1	n.s.
Newspaper dependency	26	26	n = 52	0.00	1	n.s.

Results indicate that respondents were not deleted disproportionately from any level of the predictor variables, suggesting that the deletion process introduced no bias into analyses.

CHAPTER III

STATISTICAL REPORT OF RESULTS TESTING HYPOTHESES

This chapter presents the direct tests of the hypotheses stated in Chapter I. Results are presented below with the criterion variables grouped into the components of information control classes explicated in Chapter I. Since criterion variables differ in how they reflect information control (e.g., high values of some variables conceptually indicate less control), each analysis is preceded by an interpretation of that variable's meaning in terms of information control. In the interest of brevity, no attempt will be made initially to compare results across tables nor will any attempt be made to explain or rationalize results. These comparisons and interpretations will be made in Chapter IV which will summarize and interpret the results. For Chapter III, each table will be accompanied by nine straightforward report of statistical results. In addition, while observations could be made on a given table, the results reported here will pertain only to the stated hypotheses.

Attitude Toward Outcome

For this first component of information control, one variable was developed--attitude toward using credit. More favorable attitudes toward credit are seen as reflecting lower levels of information control.

Table 4 lists the cell means. Only one F in the analysis of variance was significant--the second order interaction (TV x gregariousness x diversity) at $p<.05$. The interaction was complex and none of the within table comparisons of means were significant. No direct support is offered for any of the hypotheses.

Table 4. Cell means for the factorial analysis of variance of the predictor variables (television dependency, gregariousness, and interpersonal network diversity) on the criterion measure of attitude toward outcome.

Variable					
		High Diversity		Low Diversity	
Attitude toward credit[a]		High Greg.	Low Greg.	High Greg.	Low Greg.
	High TV	4.08	3.79	3.72	3.92
	Low TV	3.56	4.18	4.31	4.10

[a]Higher means on this measure indicate less information control. Cell n for this analysis was 39.

Awareness of Sources (past use for information)

The criterion variables tapping this component of information control are divided into two sections. The first--including eleven variables--taps respondent use of various sources for information in the past. The second--including eight variables--taps respondent ability to name sources on ten hypothetical problems. Table 5 reports the results of the analyses of variance for the first section of "awareness of sources" variables. Table 6 (on page 51) lists the cell means for each of the eleven criterions in this section.

Use of in-ghetto sources for information in the past. This variable taps respondent use of friends, neighbors, and relatives as his

Table 5. Results of the factorial analysis of variance for the predictor variables (television dependency, gregariousness, and interpersonal network diversity) on the criterion measure of awareness of sources (past use for information).

	Probability level of Fs						
Variable	TV	Gregar-iousness	Diver-sity	TV x Greg.	TV x Div.	Greg. x Div.	TV x Greg. x Div.
Awareness of source (past use for information)							
In-ghetto sources		p<.001[a] (low)		p<.10			
Pastors		p<.01 (high)	p<.05 (high)				
Teachers		p<.01 (high)	p<.001 (high)				
Civil rights leaders	p<.10 (low)	p<.10 (high)	p<.05 (high)				
Lawyers							
Doctors	p<.01 (high)	p<.01 (high)	p<.10 (high)				p<.01
Public housing		p<.05 (high)					
Social workers	p<.01 (high)	p<.001 (high)					
Co-workers		p<.01 (low)					
Public health agency	p<.05 (high)	p<.10 (high)					
Professionals	p<.05 (high)	p<.001 (high)	p<.05 (high)				

[a]For the main effect Fs, the sub-group of respondents who showed the higher level of information control is indicated in parentheses, e.g., low gregarious respondents had higher control in terms of in-ghetto sources.

Table 6. Cell means for the factorial analysis of variance of the predictor variables (television dependency, gregariousness, and interpersonal network diversity) on the criterion measure of awareness of sources (past use for information).

Variable		Cell means			
		High Diversity		Low Diversity	
		High Greg.	Low Greg.	High Greg.	Low Greg.
In-ghetto sources[a]	High TV	5.62	4.38	5.44	4.51
	Low TV	5.13	4.36	4.95	4.67
Pastors	High TV	1.54	1.28	1.44	1.15
	Low TV	1.59	1.31	1.26	1.33
Teachers	High TV	1.56	1.28	1.31	1.10
	Low TV	1.69	1.41	1.18	1.13
Civil rights leaders	High TV	1.31	1.10	1.18	1.08
	Low TV	1.41	1.28	1.18	1.21
Lawyers	High TV	1.54	1.51	1.44	1.46
	Low TV	1.54	1.44	1.56	1.31
Doctors	High TV	2.26	2.10	2.15	1.59
	Low TV	2.03	1.59	1.79	1.82
Public housing	High TV	1.38	1.18	1.44	1.23
	Low TV	1.38	1.26	1.15	1.18
Social workers	High TV	1.56	1.31	1.17	1.38
	Low TV	1.44	1.15	1.41	1.21
Co-workers[a]	High TV	1.51	1.28	1.31	1.31
	Low TV	1.51	1.31	1.51	1.23
Public health agency	High TV	1.85	1.46	1.64	1.62
	Low TV	1.44	1.44	1.49	1.36
Profes-sionals	High TV	11.69	10.13	11.08	9.54
	Low TV	11.10	9.59	9.85	9.33

[a]Higher means on these two measures indicate less information control. Higher means on all other measures indicate higher information control. Cell n's for all analyses were 39.

sources of information on problems in the past. Results indicate one significant F for the gregariousness main effect ($p<.001$). In addition, the TV x gregariousness interaction is near significant at $p<.10$. In general, the results show that high gregarious respondents are significantly more likely to have indicated greater use of in-ghetto sources for information in the past. Since more naming of in-ghetto sources is indicative of less control, this is direct support for Hypothesis 2. High television dependents were not more likely to use such sources, as predicted by Hypothesis 1. High diversity respondents were not less likely, as predicted by Hypothesis 3.

Further within table comparisons show no difference for levels of television dependency under different levels of diversity as predicted by Hypothesis 4. The test of Hypothesis 5, however, shows under conditions of high diversity, high gregarious respondents were significantly more likely ($c = 4.38$, $p<.01$) to name such sources while under conditions of low diversity, no such difference exists ($c = 2.64$, n.s.). This result is the reverse of that predicted.

No support is offered for Hypothesis 6. The isolated respondents (low-low-low) are not significantly different from all other cells. Finally, the comparison of the low TV versus high TV integrated respondents (high gregariousness - high diversity) was not significant ($c = 1.51$). However, integrated respondents, regardless of TV level, were significantly more likely ($c = 3.51$, $p<.01$) to name in-ghetto sources than all other respondents. This result is a reverse of Hypothesis 7.

Use of pastors for information in the past. Higher levels of this variable were seen as indicating greater levels of control. Results show two significant main effects--gregariousness ($p<.01$) and diversity ($p<.05$). Hypothesis 1 is not supported as high television dependents are not different from low television dependents. Hypothesis 2 is reversed with high gregarious respondents significantly more likely to report using pastors. Hypothesis 3, however, is supported with high diversity respondents more likely to name pastors.

A test of Hypothesis 4 was not significant with levels of television showing no difference under high versus low diversity. A test of Hypothesis 5 provides support for the hypothesis. Under conditions of high diversity, high gregarious respondents were more likely to name pastors than low gregarious respondents ($c = 2.89$, $p<.05$) while under conditions of low diversity, the comparison was not significant ($c = 1.18$).

Hypothesis 6 predicted that the isolated respondents would name pastors least but the comparison of these respondents with all others was not significant ($c = .37$). A comparison of the integrated respondents (high gregariousness-high diversity) with all other respondents was significant ($c = 3.54$, $p<.01$), with integrated respondents reporting higher use of pastors. This result supports Hypothesis 7. The low TV integrated respondents with not significantly different from high TV respondents, however.

Use of teachers for information in the past. High values of this variable also indicate high levels of control. Results show two significant main effects--gregariousness ($p<.01$) and diversity ($p<.001$). Hypothesis 1 is not supported as high television respondents are not

different from low television respondents. Hypothesis 2 is reversed again with high gregarious respondents being more likely to name teachers than low respondents. Hypothesis 3 is supported with high diversity respondents significantly more likely to have reported using teachers than low diversity respondents.

A test of Hypothesis 4 indicated that levels of television were not significantly different under different levels of diversity. Hypothesis 5, however, was supported with high gregarious respondents using teachers more than low gregarious respondents under high diversity conditions ($c = 2.91$, $p<.05$). The same comparison under low diversity conditions was not significant ($c = 1.35$).

Hypothesis 6 predicted that the isolated respondents (low-low-low) would use teachers least. While numerically they are among the lowest namers of teachers, a comparison of this group of respondents with all others was not significant ($c = 2.25$). The integrated respondents (high gregarious-high diversity) were significantly more likely to use teachers than all other respondents, supporting Hypothesis 7 ($c = 4.97$, $p<.01$). Within this comparison, however, high TV respondents were not significantly different from low TV respondents.

Use of civil rights leaders for information in the past. High values of this variable indicate higher levels of control. Results show one significant main effect (diversity at $p<.05$) and two near significant main effects (television and gregariousness at $p<.10$). Results are in the direction predicted by Hypothesis 1--low TV respondents tended to use civil rights leaders more than high TV respondents. For the gregariousness main effect, results tend to be a reversal of that predicted by

Hypothesis 2 with high gregarious respondents tending to use leaders more. Hypothesis 3 is supported with high diversity respondents showing significantly higher use of civil rights leaders.

Hypothesis 4 receives no support with levels of television not being different under different levels of diversity. Hypothesis 5 is also not supported with diversity making no difference for levels of gregariousness. The isolated respondents (low-low-low) are not significantly different from other respondents and a visual check does not even indicate a trend in this direction. Thus, Hypothesis 6 receives no support. Integrated respondents (high gregariousness and high diversity) are significantly more likely to have used civil rights leaders ($c = 2.72$, $p < .05$), supporting Hypothesis 7. Within this comparison, however, there was no difference between high and low TV respondents.

Use of lawyers for information in the past. High values of this variable indicate higher levels of control. Results showed no significant Fs on this comparison.

Use of doctors for information in the past. High values of this variable indicate higher levels of control. Results yielded three significant and two near significant Fs. The main effect hypothesis for television (H_1) showed a reversal with high television respondents being generally more likely to have reported using doctors. Hypothesis 2--the main effect hypothesis for gregariousness was also reversed--with high gregarious respondents being generally more likely to have used doctors. The test of Hypothesis 3, however, showed results in the direction predicted with high diversity respondents tending to report greater use of doctors.

A test of Hypothesis 4 showed that under conditions of high diversity, high TV respondents reported significantly higher use of doctors than low TV respondents ($c = 3.06$, $p<.05$). Under conditions of low diversity, high and low TV respondents were not significantly different from each other. These results are a reversal of Hypothesis 4.

The test of Hypothesis 5 was not significant with levels of diversity having no effect on levels of gregariousness. In addition, the test of Hypothesis 6 was not significant with isolated respondents not being significantly less likely to use doctors than other respondents. A visual check of the means does not even show a trend in this direction.

Hypothesis 7 does receive support, however, with integrated respondents (high gregarious-high diversity) being significantly more likely ($c = 3.09$, $p<.05$) to have used doctors than all other respondents. Within this comparison, there was no difference ($c= 1.35$) between low and high TV respondents.

Use of public housing agency for information in the past. Higher values of this variable indicate higher levels of control. Results show one significant F--the gregariousness main effect at $p< .05$. In terms of main effect hypotheses, we find no difference in use of the public housing agency in terms of television (H_1) or diversity (H_3). Generally, high gregarious respondents report higher use of the public housing agency, a reversal of Hypothesis 2.

None of the within table comparisons were significant making the tests for Hypothesis 4 through Hypothesis 7 not significant.

Use of social workers for information in the past. Higher values of this variable indicate higher levels of control. Results show two significant main effects--television at $p<.01$ and gregariousness at $p<.001$. Generally, high television respondents report higher use of social workers, a reversal of Hypothesis 1. A test of Hypothesis 2 showed high gregarious respondents reporting higher use of social workers, a reversal of the prediction. Results on Hypothesis 3 were not significant with high diversity respondents not being significantly different from low diversity respondents in their use of social workers.

The test of Hypothesis 4 was not significant with levels of diversity having no effect on levels of television. The test of Hypothesis 5 was also not significant with levels of diversity having generally no effect on levels of gregariousness. It should be noted, here, however, this test indicated a trend in the predicted direction. Under conditions of high diversity, high gregarious respondents tended to use social workers more than low gregarious respondents ($c = 2.67$ with critical value $c = 2.69$). Under conditions of low diversity, no such trend existed ($c = .05$).

The test of Hypothesis 6--whether isolated respondents were less likely than others to use social workers--was not significant and a visual check of the means doesn't even indicate a trend in this direction. The test of Hypothesis 7 was significant, however, with integrated respondents (high diversity-high gregarious) being significantly more likely to use social workers than all other respondents ($c = 2.76$, $p<.05$). Within this comparison, however, low TV respondents were not significantly different from high TV respondents ($c = .84$).

Use of co-workers for information in the past. Higher values of this variable indicate lower levels of control. Results show one significant F for the main effect of gregariousness ($p<.01$). Hypothesis 1 and Hypothesis 3 were not supported with no significant differences being found between levels of television or levels of diversity. High gregarious respondents, on the other hand, reported generally more use of co-workers, a result which supports the Hypothesis 3 prediction.

All of the within table comparisons of means were not significant, providing no support for Hypothesis 4 through Hypothesis 7.

Use of public health agency for information in the past. Higher values of this variable indicate higher levels of information control. Results show one significant main effect F (television at $p<.05$) and one near significant main effect F (gregariousness at $p<.10$). The results on Hypothesis 1 show a reversal with high television respondents being significantly more likely than low television respondents to report use of the public health agency. There is also a reversal effect (non significant at $p<.10$) for gregariousness with high gregariousness respondents showing more use. Hypothesis 3 receives no support with no differences being found for levels of diversity.

Both Hypothesis 4 and Hypothesis 5 receive no support with tests showing no effect on either gregariousness or television from diversity. Hypothesis 6 is also not supported with the mean score for isolated respondents (low-low-low) not being significantly different from the average of all other respondents.

The test of Hypothesis 7 was also not supported with integrated respondents (high gregariousness-high diversity) not being significantly

different from other respondents. In addition, the low TV integrated respondents are not significantly different from the high TV integrated respondents. If anything, the direction of their means and the obtained c (c = 2.56 with critical c at 2.69) suggests a trend in the direction opposite to Hypothesis 7.

In this table, it is the high-high-high respondents who reported the most use of the public health agency. The mean for this cell is significantly different from all other cells (c = 3.02, $p<.05$).

Use of professionals for information in the past. High values of this variable indicate high levels of information control. The results show three significant main effect Fs--television ($p<.05$), gregariousness ($p<.001$), and diversity ($p<.05$). The results on Hypothesis 1 are reversed with high television respondents reporting significantly higher use of professionals than low television respondents. The results on Hypothesis 2 are also reversed with high gregarious respondents reporting significantly higher use of professionals than low gregarious respondents. The results on Hypothesis 3 supports the prediction with high diversity respondents reporting significantly higher use of professionals than low diversity respondents.

The test of Hypothesis 4 was not significant with diversity having no effect on levels of television. The test of Hypothesis 5 was significant, however, with high gregarious respondents being more likely to use professionals than low gregarious respondents under high diversity conditions (c = 3.72, $p<.01$). The comparison of gregariousness under conditions of diversity was not significant (c = 2.50, critical c = 2.69).

The test of Hypothesis 6 showed that isolated respondents (low-low-low) were not significantly different from all other respondents. The test of Hypothesis 7 showed that the integrated respondents (high gregarious-high diversity) were significantly more likely to use professionals than all other respondents ($c = 4.38$, $p<.01$), a result supporting the prediction. Within this comparison, high TV integrated respondents were not significantly different from low TV integrated respondents ($c = 1.01$).

Awareness of Sources (sources named on 10 hypothetical problems)

The second section of variables tapping the "awareness of sources" component of information control included eight different measures. Table 7 reports the results of the analyses of variance on these measures. Table 8 (on page 62) lists the cell means.

Number of sources named on 10 problems. High values of this variable indicate higher levels of information control. Results show one significant main effect (gregariousness at $p<.05$) and one near significant main effect (diversity at $p<.10$). Hypothesis 1 is not supported with the difference between levels of television being non significant. The test of Hypothesis 2 finds high gregarious respondents being significantly more likely to name more sources than low gregarious respondents. This is a reversal of the Hypothesis 2 prediction. Hypothesis 3 receives only partial support with high diversity respondents tending to use more sources than low diversity respondents.

The tests of both Hypothesis 4 and Hypothesis 5 were not significant with levels of diversity having no impact on either gregariousness

Table 7. Results of the factorial analysis of variance for the predictor variables (television dependency, gregariousness, and interpersonal network diversity) on the criterion measure of awareness of sources (sources named on 10 hypothetical problems).

	Probability level of Fs						
Variable	TV	Gregar-iousness	Diver-sity	TV x Greg.	TV x Div.	Greg. x Div.	TV x Greg. x Div.
Awareness of (sources named on 10 hypothetical problems)							
Number sources named		p<.05[a] (high)	p<.10 (high)				
Number print media sources named	p<.05 (high)						
Number specific stores named						p<.05	
Number people named		p<.01 (low)					
Number institutional sources named	p<.001 (high)						
Number professional sources named			p<.10 (high)				
Number in-ghetto sources named		p<.01 (low)					
Number service organizations named	p<.01 (high)						

[a]For the main effect Fs, the sub-group of respondents who showed the higher level of information control is indicated in parentheses.

Table 8. Cell means for the factorial analysis of variance of the predictor variables (television dependency, gregariousness, and interpersonal network diversity) on the criterion measure of awareness of sources (sources named on 10 hypothetical problems).

Variable		Cell means			
		High Diversity		Low Diversity	
		High Greg.	Low Greg.	High Greg.	Low Greg.
Number sources named[a]	High TV	14.67	13.36	14.03	12.95
	Low TV	13.62	13.64	13.46	12.51
Number print media sources[a] named	High TV	1.21	1.26	1.33	1.56
	Low TV	.97	1.33	.90	1.03
Number specific stores named	High TV	1.15	.72	.69	1.03
	Low TV	1.13	.56	.51	.64
Number people sources named	High TV	4.90	3.79	4.77	3.36
	Low TV	4.33	3.90	4.74	3.87
Number of institutional sources named[a]	High TV	8.72	8.33	8.08	8.46
	Low TV	7.41	7.69	7.36	7.26
Number professional[a] sources named	High TV	1.18	1.00	0.90	.90
	Low TV	1.08	.92	.92	.90
Number in-ghetto sources named	High TV	2.51	1.87	2.85	1.85
	Low TV	2.51	2.18	3.05	2.13
Number service[a] organizations named	High TV	4.23	4.08	3.95	3.51
	Low TV	3.49	3.44	3.49	3.28

[a]Higher means on these measures indicate higher information control; higher means on all other measures indicate less information control. Cell n's for all analyses were 39.

or television.

Despite the fact that the isolated (low-low-low) respondents have the lowest numerical mean in the table, this mean is not significantly different from all other means. Thus, Hypothesis 6 is not supported.

A test of Hypothesis 7 did not support the hypothesis. The integrated respondents (high gregariousness and high diversity) were not significantly different from all other respondents. In addition, the high TV integrated respondents were not different from the low TV integrated respondents. If anything, a visual check of the means suggest a trend which reverses Hypothesis 7.

Number of print media sources named on 10 problems. High values of this variable indicate higher levels of control. Results show on significant F for the television main effect ($p<.05$). Results indicate a reversal of Hypothesis 1 with high television respondents being more likely to name media sources than low television respondents. Hypothesis 2 and Hypothesis 3--the main effect hypotheses--are not supported.

None of the within table comparisons were significant so Hypothesis 4 through Hypothesis 7 receive no support.

Number of specific stores named on 10 problems. High values of this variable (showing a greater dependence on profit-making sources) indicate lower levels of control. Results show one significant F for the first order interaction gregariousness x diversity ($p<.05$). None of the main effect hypotheses receive support.

The test of Hypothesis 4 was not significant with levels of diversity having no effect on television. The significant interaction

F indicates a reversal of Hypothesis 5. High gregarious respondents named more stores than low gregarious respondents under conditions of high diversity while the opposite is true under low diversity. While the F test indicates such a trend, the actual within table comparison of means were not significant for this hypothesis.

A test of Hypothesis 6 showed isolated respondents were not significantly different from other respondents. However, a test of Hypothesis 7 showed that integrated respondents (high gregariousness-high diversity) were significantly more likely ($c = 2.82$, $p<.05$) to have named stores than all other respondents. This result is a reversal of Hypothesis 7 which predicted integrated respondents would show higher levels of information control by naming fewer stores. There was no difference between low and high TV integrated respondents.

Number of people sources named on 10 problems. Higher levels of this variable indicate lower levels of information control. Results indicate one significant F for the gregariousness main effect ($p<.01$). The main effect hypotheses Hypothesis 1 and Hypothesis 3 are not supported with levels of television and levels of diversity showing no significant differences. In terms of Hypothesis 2, however, high gregarious respondents were significantly more likely to have named more people than low gregarious respondents. This result supports Hypothesis 2 which predicted lower levels of control for high gregarious respondents.

A test of Hypothesis 4 was not significant with levels of diversity having no impact on television. A test of Hypothesis 5 showed that under conditions of high diversity, high gregarious respondents were not significantly different ($c = 2.02$, critical $c = 2.76$) from low

gregarious respondents in the number of people named. Under conditions of low diversity, however, the high gregarious respondents did name significantly more people ($c = 2.99$, $p<.05$). The result is as predicted by Hypothesis 5, although it should be noted that regardless of diversity the gregariousness main effect holds.

The test of Hypothesis 6 was not significant with isolated respondents not being different from other respondents. In addition, the test of Hypothesis 7 was not significant with integrated respondents (high gregariousness-high diversity) not being different from other respondents.

Number of institutional sources named on 10 problems. Higher values of this variable indicated higher levels of information control. Results show one significant main effect ($p<.01$) for television. Hypothesis 1 is reversed in the results with high television respondents being significantly more likely to name institutional sources than low television respondents. Hypothesis 2 and Hypothesis 3 receive no support with no differences found between either levels of gregariousness or levels of diversity.

All within table comparisons for this variable were not significant, yielding no support for Hypotheses 4 through 7.

Number of professional sources named on 10 problems. High values of this variable indicate higher levels of information control. Results show only one near significant main effect for diversity ($p< .10$). High diversity respondents tended to name more professionals than low diversity respondents. None of the other hypotheses receive even partial support.

Number of in-ghetto sources named on 10 problems. High values of this variable, tapping number of family-friends-neighbors named as potential information sources on 10 problems, indicate lower levels of information control. Results show one significant main effect F for gregariousness ($p<.01$). Hypothesis 1 and Hypothesis 3 receive no support, with neither levels of television nor levels of diversity showing differences. Hypothesis 2, on the other hand, is supported with high gregarious respondents being significantly more likely than low gregarious respondents to name in-ghetto sources. A test of Hypothesis 4 was not significant with diversity having no effect on levels of television. Hypothesis 5, on the other hand, was supported. Under conditions of high diversity, high gregarious respondents were no more likely than low gregarious respondents to name in-ghetto sources ($c = 1.52$). However, under conditions of low diversity, high gregarious respondents were significantly higher namers ($c = 3.01$, $p<.01$) than low gregarious respondents.

A test of Hypothesis 6 showed that isolated respondents were not significantly different from other respondents. A test of Hypothesis 7 showed the same to be true of integrated (high gregariousness-high diversity) respondents.

Number of service organization sources named on 10 problems. Higher levels of this variable (designed to tap respondent naming of those organizations whose stated purpose is to help people) indicates higher levels of information control. Results show one significant main effect F (for television at $p<.01$). Results indicate that Hypothesis 1 is reversed with high television respondents being

significantly more likely than low television respondents to name service organizations. Neither Hypothesis 2 nor Hypothesis 3 is supported, with no differences being found between either levels of gregariousness or levels of diversity.

All within table comparisons were not significant, offering no support for Hypotheses 4 through 7.

Knowledge of Means to Achieve Outcome

The three variables tapping this component of information control deal with the respondent's ability to name means of achieving an outcome. In this case, the outcome is "getting consumer credit." Table 9 reports the results of the analyses of variance for this component of information control. Table 10 (on page 69) lists the cell means.

Number of means named for getting credit. Higher values of this variable indicate higher levels of control. Results show one significant main effect F (gregariousness at $p<.01$). No support is offered for either Hypothesis 1 or Hypothesis 3 with neither levels of television nor levels of diversity showing differences. Hypothesis 2 is reversed with high gregarious respondents naming more means than low gregarious respondents.

A test of Hypothesis 4 shows a reversal of the prediction. Under conditions of low diversity, high television respondents show less control (name fewer means) than low television respondents ($c = 2.72$, $p<.05$). However, under conditions of high diversity, high television respondents do not differ from low television respondents ($c = .17$).

A test of Hypothesis 5 showed no effect from levels of diversity on gregariousness. A test of Hypothesis 6, however, indicated another

Table 9 Results of the factorial analysis of variance for the predictor variables (television dependency, gregariousness, and interpersonal network diversity) on the criterion measure of knowledge of means to achieve outcomes.

	Probability level of Fs						
Variable	TV	Gregar-iousness	Diver-sity	TV x Greg.	TV x Div.	Greg. x Div.	TV x Greg. x Div.
Knowledge of means to achieve outcomes							
Number means named for getting credit		p<.01[a] (high)					
Number in-ghetto means named	p<.10 (high)					p<.05	
Naming of bank as means			p<.10 (high)			p<.10	

[a]For the main effect Fs, the sub-group of respondents who showed the higher level of information control is indicated in parentheses.

prediction reversal with isolated respondents naming significantly more means than all other respondents. A test of Hypothesis 7 was not significant, offering no support for the prediction. If anything, results show that integrated respondents were not significantly higher namers of means simply because the isolated respondents were through the Hypothesis 6 test. In addition, there was no significant difference between high TV integrated (high gregariousness-high diversity) respondents and low TV integrated respondents.

Table 10 Cell means for the factorial analysis of variance of the predictor variables (television dependency, gregariousness, and interpersonal network diversity) on the criterion measure of knowledge of means to achieve outcomes.

Variable		Cell means			
		High Diversity		Low Diversity	
		High Greg.	Low Greg.	High Greg.	Low Greg.
Number means named for getting credit[a]	High TV	3.15	2.51	2.97	2.72
	Low TV	2.97	2.62	3.15	3.64
Number in-ghetto means[b] named	High TV	19.31	9.33	15.59	18.87
	Low TV	20.36	11.28	13.67	24.87
Naming of bank[a] as means	High TV	1.59	1.51	1.49	1.59
	Low TV	1.49	1.62	1.28	1.46

[a]High means on these two measures indicate higher information control; higher means on the remaining measure indicates less information control. Cell n's for all analyses were 39.

Number of in-ghetto means named for credit. High values of this variable indicate lower levels of information control. Results show one significant interaction F (gregariousness x diversity at $p<.05$) and a near significant main effect for television ($p<.10$). Since high television viewers tend to generally name few in-ghetto means, slight support is given for the reverse prediction of Hypothesis 1. Hypothesis 2 and Hypothesis 3 receive no support with neither levels of gregariousness nor levels of diversity showing significant differences.

A test of Hypothesis 4 was not significant with diversity having no effect on levels of television. The significant interaction F combined with an examination of the means shows a reversal effect for

Hypothesis 5. Under conditions of high diversity, high gregarious respondents show less control (name more in-ghetto means) than low gregarious respondents ($c = 2.88$, $p<.05$). Under conditions of low diversity, the opposite is true with low gregarious respondents showing less control than high gregarious respondents. This second comparison is not significant by Dunn's test, however ($c = 2.19$, critical $c = 2.69$).

A test of Hypothesis 6 confirms the prediction. Isolated respondents were significantly more likely than all other respondents to name more in-ghetto means. A test of Hypothesis 7, however, did not support the prediction that integrated respondents (high gregarious-high diversity) would name fewer in-ghetto means. Integrated respondent means are not significantly different from other cell means and a visual inspection indicates no such trend. In addition, high and low TV integrated respondents did not differ from each other.

Naming of bank as means for credit. A high value on this variable (tapping whether respondents named one of the "better outcome" means) indicates higher levels of information control. Results show only two near significant Fs--diversity a $p<.10$ and the gregariousness x diversity interaction at $p<.10$. Results indicate that high diversity respondents tended to name the bank more often than low diversity respondents. In addition, under conditions of low diversity, high gregarious respondents showed a consistent tendency to name the bank less than low gregarious respondents while under conditions of high diversity, low and high gregarious respondents were more alike. These trends apply to Hypothesis 3 and Hypothesis 5 with the trends being in the direction predicted by those hypotheses.

Use of Criteria for Evaluation

The three variables tapping this component of information control deal with the respondents' use of criteria (or attributes) for evaluating means to achieve outcomes. Table 11 reports the results of the analyses of variances. Table 12 (on page 72) lists the cell means.

Table 11. Results of the factorial analysis of variance for the predictor variables (television dependency, gregariousness, and interpersonal network diversity) on the criterion measure of use of criteria for evaluation of means.

	Probability level of Fs						
Variable	TV	Gregar-iousness	Diver-sity	TV x Greg.	TV x Div.	Greg. x Div.	TV x Greg. x Div.
Use of criteria for evaluation of means							
Importance of "friendly" criterion		p<.05[a] (low)					
Importance of "gives good deal" criterion							
Discrepancy from expert rank of criteria		p<.10 (low)				p<.10	

[a]For the main effect Fs, the sub-group of respondents who showed the higher level of information control is indicated in parentheses.

Importance of the "friendly" criterion. Respondents with high values on this variable placed less importance on the "friendly" criterion and, thus, showed higher levels of information control. Results indicate one significant main effect F for gregariousness at

Table 12. Cell means for the factorial analysis of variance of the predictor variables (television dependency, gregariousness, and interpersonal network diversity) on the criterion measure of use of criteria for evaluation of means.

Variable		Cell means			
		High Diversity		Low Diversity	
		High Greg.	Low Greg.	High Greg.	Low Greg.
Importance of "friendly" criterion[a]	High TV	2.84	3.28	3.25	3.03
	Low TV	3.00	3.47	2.84	3.34
Importance of[b] "gives good deal" criterion	High TV	1.97	1.81	1.84	1.97
	Low TV	2.06	1.59	1.78	1.72
Discrepancy[b] from expert's rank of criteria	High TV	3.56	2.75	3.00	3.31
	Low TV	3.38	2.25	3.25	3.03

[a]Higher means on this measure indicates higher information control; higher means on the other measures indicate less information control. Cell n's for all analyses were 32.

$p<.05$. Hypothesis 1 and Hypothesis 3 are not supported with neither levels of television nor levels of diversity showing differences. Hypothesis 2, however, is confirmed with high gregarious respondents placing significantly more importance on the "friendly" criterion. Thus, Hypothesis 4 through Hypothesis 7 receive no support on this variable.

All further within table comparisons of means were not significant.

Importance of "gives good deal" criterion. Lower values of this variable indicate respondents placed more importance on "gives good deal" and thus indicate higher levels of information control. Results are not significant.

Discrepancy from expert rank of criteria. High values of this variable indicate that the relative importance respondents placed on four attributes for evaluating means were highly discrepant from the same judgments made by experts. High values, therefore, indicate less information control. Results indicate only two near significant Fs--the main effect for gregariousness at $p<.10$ and the gregariousness x diversity interaction at $p<.10$. None of the hypotheses receive support for this variable. There is some non-significant support for Hypothesis 2 with high gregarious respondents tending at $p<.10$ to be more discrepant than low gregarious respondents. However, the near significant interaction indicates a trend which reverses the prediction of Hypothesis 5. While high gregarious respondents tend to be more discrepant than low gregarious respondents under high diversity, the opposite is the trend under low diversity.

Evaluation of Means

The three variables tapping this component of information control indicate the respondents' ability at comparing alternative means in terms of which produces "better outcomes." Table 13 reports the results of the analyses of variance on all three measures. Table 14 (on page 75) lists the cell means.

Knowledge of credit rates. A straight knowledge measure, high values of this variable indicate higher levels of information control. Results are all non-significant.

Discrepancy from expert's evaluation of means in terms of "best deal." A different version of the knowledge measure above, this variable taps the knowledge measure above, this variable taps the discrepancy between the respondents' ranking of credit means in terms of

Table 13. Results of the factorial analysis of variance for the predictor variables (television dependency, gregariousness, and interpersonal network diversity) on the criterion measure of evaluation of means.

	Probability level of Fs						
Variable	TV	Gregar-iousness	Diver-sity	TV x Greg.	TV x Div.	Greg. x Div.	TV x Greg. x Div.
Knowledge of credit rates							
Discrepancy from expert evaluation of means in terms of "best deal."			$p<.001$[a] (high)				
Discrepancy from normative evaluation of means			$p<.05$ (low)				

[a]For the main effect Fs, the sub-group of respondents who showed the higher level of information control is indicated in parentheses.

credit costs and the expert ranking. Higher levels of this variable indicate lower levels of information control. Results show on significant F for diversity at $p<.001$.

Neither levels of television nor levels of gregariousness show significant differences, offering no support for Hypothesis 1 and Hypothesis 2. Hypothesis 3 is supported with high diversity respondents showing less discrepancy than low diversity respondents.

Tests of both Hypotheses 4 and 5 were not significant with levels of diversity having no significant effect on either television or gregariousness. Isolated respondents (low-low-low) were significantly more discrepant than all other respondents supporting Hypothesis 6 ($c = 2.69$, $p<.05$). The test for Hypothesis 7, however, gives no support to the prediction as integrated respondents (high gregariousness-high

Table 14. Cell means for the factorial analysis of variance of the predictor variables (television dependency, gregariousness, and interpersonal network diversity) on the criterion measure of evaluation of means.

Variable		Cell means			
		High Diversity		Low Diversity	
		High Greg.	Low Greg.	High Greg.	Low Greg.
Knowledge of credit rates[a]	High TV[b]	.49	.36	.38	.36
	Low TV	.38	.38	.38	.36
Discrepancy from expert evaluation of means in terms of "best deal"	High TV	2.56	2.31	2.94	3.25
	Low TV	2.00	2.63	3.13	3.75
Discrepancy from[a] normative evaluation of means	High TV	14.00	12.00	14.31	13.81
	Low TV	11.88	12.50	13.16	13.78

[a]Higher means on these two measures indicate higher information control. Higher means on the other measure indicates less information control.
[b]Cell n's for this analysis were 39; for the other two analyses, cell n's were 32.

diversity) were not significantly different from other respondents. And, despite the fact that by visual inspection the low TV integrated respondents are less discrepant than high TV integrated respondents (as predicted), this difference is not significant.

Discrepancy from normative evaluation of means. This measure taps the extent of the respondent's discrepancy from the evaluation of means which was typical of the entire sample. High levels of this variable indicate more information control. Results show one significant F for the diversity main effect at $p<.05$. Neither Hypothesis 1 nor Hypothesis 2 receive support with levels of both television and gregariousness showing no differences. Results on Hypothesis 3 indicate a reversal of

the prediction with high diversity respondents showing less discrepancy from the norm than low diversity respondents.

None of the within table comparisons of means were significant, offering no evidence on Hypothesis 4 through Hypothesis 7.

History of Means Used in the Past

This component of information control taps whether the respondent has achieved "better outcomes" in the past. The measures are seen as indirect evidence of information control in the past. Four different measures are included with this component. Table 15 reports the results of the analyses of variance. Table 16 (on page 78) lists the cell means.

Frequency of credit use in the past. Higher values on this variable indicate lower levels of information control. Results show one significant F for the gregariousness main effect ($p<.001$). Results on both Hypotheses 1 and 3 are non-significant with neither levels of television nor levels of diversity showing significant differences. However, the trend for both hypotheses is in the right direction. Hypothesis 2 is supported with high gregarious respondents showing significantly greater use of credit than low gregarious respondents.

The test of Hypothesis 4 is not significant with levels of diversity having no significant effect on television. Hypothesis 5, however, shows results in the direction opposite to that predicted. Under conditions of high diversity, high gregarious respondents are significantly greater ($c = 2.88$, $p<.05$) users of credit than low gregarious respondents. Under conditions of low diversity, while the same trend is indicated, the difference between levels of gregariousness is not significant ($c = 2.09$).

Table 15. Results of the factorial analysis of variance for the predictor variables (television dependency, gregariousness, and interpersonal network diversity) on the criterion measure of history of means used in the past.

	Probability level of Fs						
Variable	TV	Gregar-iousness	Diver-sity	TV x Greg.	TV x Div.	Greg. x Div.	TV x Greg. x Div.
History of means used in the past							
Frequency credit use		p<.001[a]					
Use of in-ghetto credit means		p<.01 (low)					
Number of charge accounts			p<.01 (low)				p<.01
Political activity			p<.001 (high)				

[a]For the main effect Fs, the sub-group of respondents who showed the higher level of information control is indicated in parentheses.

None of the other within table comparisons are significant so Hypotheses 6 and 7 receive no support.

Use of in-ghetto credit means. This measure taps the frequency of use of in-ghetto means of credit--door-to-door salesman, pawnbrokers, friends, neighbors, and relatives. Higher values on this variable indicate lower levels of control. Results show one significant F for the gregariousness main effect (p<.01). No support is offered for either Hypothesis 1 or Hypothesis 3 with neither television nor diversity showing significant differences. Hypothesis 2, however, is supported with high gregarious respondents reporting significantly greater use of in-ghetto credit means than low gregarious respondents.

Table 16. Cell means for the factorial analysis of variance of the predictor variables (television dependency, gregariousness, and interpersonal network diversity) on the criterion measure of history of means used in the past.

Variable		Cell means			
		High Diversity		Low Diversity	
		High Greg.	Low Greg.	High Greg.	Low Greg.
Frequency credit use	High TV	4.59	2.92	5.54	3.77
	Low TV	5.08	1.95	4.72	3.00
Use of in-ghetto credit means	High TV	9.05	7.08	9.00	6.90
	Low TV	10.15	6.05	8.62	6.41
Number of charge accounts	High TV	.90	1.49	.79	.51
	Low TV	1.38	1.23	.51	.18
Political activity[a]	High TV	2.97	2.92	2.15	2.38
	Low TV	3.00	2.92	2.13	1.64

[a]Higher means on this measure indicates higher information control. Higher means on all other measures indicate less information control. Cell n's for all analyses were 39.

None of the within table comparisons were significant offering no evidence on Hypothesis 4 through Hypothesis 7. It must be noted, however, that the trend of the data is in the opposite direction for Hypotheses 6 and 7 with isolated respondents showing a trend toward the least use of in-ghetto means and integrated respondents showing a trend toward the greatest use of in-ghetto means.

Number of charge accounts. High values of this variable indicate lower levels of control. Results indicate two significant Fs--the diversity main effect ($p<.01$) and the second order interaction (TV x gregariousness x diversity) at $p<.01$.

Neither Hypotheses 1 nor 2 are supported with gregariousness and television showing no general across the table differences. Results on

Hypothesis 3 indicate a reversal of the prediction with high diversity respondents showing greater use of charge accounts.

The tests of Hypotheses 4 and 5 were not significant with levels of diversity having no significant effect on either television or gregariousness.

The test of Hypothesis 6 is significant with results being opposite to those predicted. The low-low-low or isolated respondents show the least use of charge accounts with this cell mean being significantly different from all other cell means ($c = 3.15$, $p<.05$). The test of Hypothesis 7 was not significant. However, it must be noted that the trend of the data is opposite to that predicted by Hypothesis 7.

Political activity. The preceding measures of past activity have related to the outcome "getting consumer credit." This measure, relates to the outcome "getting your voice heard" and taps the extent of the respondent's involvement in various political activities. High values on this variable indicate higher levels of control. Results show one significant main effect F (diversity at $p<.001$).

No evidence is offered for Hypotheses 1 and 2 with neither television nor gregariousness showing significant differences. Hypothesis 3, however, is supported with high diversity respondents showing significantly higher political activity than lower diversity respondents.

The tests of Hypotheses 4 and 5 were not significant with levels of diversity showing no effect on either television or gregariousness.

A test of Hypothesis 6 supports the prediction with the isolated respondents being significantly less active than the other respondents ($c = 4.45$, $p<.01$). Hypothesis 7 is also supported with integrated (high

diversity-high gregarious) respondents being significantly more active than all other respondents ($c = 3.66$, $p<.01$). Within this comparison, the low TV integrated respondents are not significantly different from high TV integrated respondents.

Demography

Six measures of demography were developed in order to test whether the results above might be explained by related demographic variables. Any conclusions drawn will, of course, be tentative as the appropriate means of testing the intervention of such variables would be with analysis of covariance or some other statistical control procedure. These analyses are presented, however, in the interest of ferreting out possible further directions for research. Since these variables are not tapping "information control," no explicit hypotheses were stated.

Number of years of education. The analysis of variance for this measure produced no significant results.

Socioeconomic status. Higher values of this variable indicate higher status. Results show two significant Fs--the main effect for television ($p<.05$) and diversity ($p<.05$). Results indicate (as the prior research would predict) that high television respondents are of lower status than low television respondents. In addition, high diversity respondents are of higher status than low diversity respondents. No other comparisons were significant.

Marginal income status. Higher values of this variable indicate respondents who received their incomes from social security, welfare, or unemployment insurance. Results show one significant F for the

gregariousness main effect ($p<.05$) and one near significant main effect F for television ($p<.10$). Results show that high gregarious respondents were more likely to be on marginal incomes than low gregarious respondents. In addition, high television respondents tend to be more likely to be on marginal incomes than low television respondents. None of the other comparisons were significant.

Age. High values of this variable indicate higher age levels. Results show two significant main effects--gregariousness at $p<.05$ and diversity at $p<.01$. Results show high gregarious respondents are younger than low gregarious respondents. In addition, high diversity respondents are older than low diversity respondents. No other comparisons were significant.

Sex. Results indicate one significant F for the television main effect ($p<.001$). The main effect is very clear with high television respondents being far less likely to be males than low television respondents. High TV respondents were 28% male while low TV respondents were 53% male. This result reaches its extreme in the low TV-high gregarious-high diversity cell where 61% of the respondents were male. The proportion of males in this cell is significantly greater than the proportion of males in all other cells ($c = 3.33$, $p<.05$). In addition, this cell has significantly more males than the high TV-high gregarious-high diversity cell ($c = 3.86$, $p<.01$). For the entire sample, 39% of the respondents were men.

Family size. High values of this variable indicate larger family size. Results show one near significant main effect for gregariousness ($p<.10$). High gregarious respondents tended to be from larger families. No other comparisons were significant.

CHAPTER IV

RESULTS AND INTERPRETATION BY HYPOTHESES

Chapter III provides a great deal to talk about. In order to ease the complexity of the discussion, each hypothesis will be reviewed in turn with comparisons between hypotheses being made as needed. At the end of the presentations on the individual hypotheses, an effort will be made to fit the various pieces together. Implications and interpretations will be included as they seem appropriate.

Hypothesis 1

The first hypothesis in this study dealt with the role of television in information control. It was stated as follows:

> H_1: Black urban ghetto residents with high dependency on television will have lower levels of information control than black urban ghetto residents with low dependency on television.

On the 33 different criterion variables tapping information control, 24 of the tests of Hypothesis 1 were non-significant. One result was near significant in the right direction ($p<.10$). Of the remaining eight tests, seven were significant and one was near-significant ($p<.10$) in the direction opposite to that predicted.

Table 17 summarizes the results. More interesting, however, than the quantitative results are the qualitative results. On what measures was television a significant predictor? Results indicated

Table 17. Summary of results on the relationship of television dependency to the criterion measures of information control.[a]

High TV respondents showed more control by reporting . . .	High TV respondents showed less control by reporting . . .	High TV respondents were not different on . . .
Attitude toward outcome		
		attitude toward credit
Awareness of sources (past use for information)		
more use doctors	less use civil rights leaders ($p<.10$)	use of in-ghetto sources
more use social workers		use of pastors
more use public health		use of teachers
more use professionals		use of lawyers
		use of public housing
		use of co-workers
Awareness of sources (naming information sources on 10 problems)		
more print media		total sources named
more institutions		no. stores named
more service organizations		no. people named
		no. professionals named
		no. in-ghetto sources named
Knowledge of means to achieve outcome		
fewer in-ghetto ($p<.10$)		no. of means named
		naming of bank
Use of criteria for evaluation		
		importance of "friendly"
		importance of "good deal"
		discrepancy from experts

Table 17 (cont'd).

High TV respondents showed more control by reporting . . .	High TV respondents showed less control by reporting . . .	High TV respondents were not different on . . .
Evaluation of means		
		credit rate knowledge
		discrepancy from experts
		discrepancy from norm
History of means used in past		
		frequency of credit use
		use in-ghetto credit
		no. of charge accounts
		political activity
Demography and related psychological variable		
High TV respondents were		
. . . lower in socioeconomic status		education
. . . more often on welfare		age
. . . more often female		family size

[a]All relationships reported as showing differences are at $p<.05$ unless otherwise specified.

that high television respondents showed higher levels of information control than low television respondents because they:

1. Used more doctors as information sources in the past.
2. Used more social workers as information sources in the past.
3. Used more public health workers as information sources in the past.
4. Used more professionals generally for information in the past.
5. Named more print media sources on 10 hypothetical problems.
6. Named more institutional sources on 10 hypothetical problems.
7. Named more service organization sources on 10 hypothetical problems.
8. Tended to name fewer in-ghetto means of credit ($p<.10$).

All these results indicate that high television respondents showed higher levels of information control than low television respondents. Only one measure suggested a trend to the contrary. High television respondents tended ($p<.10$) to report less use of civil rights leaders as information sources than low television dependents.

It is also important to note that high television respondents were of lower socioeconomic status and more likely to be on welfare, social security, or unemployment insurance. In addition, the high television respondents were more likely to be female.

Two major conclusions emerge from these findings. One deals with the kinds of information control behaviors which television did predict. The other deals with the possible confounding effects of demographic variables.

Clearly, Hypothesis 1 was not confirmed. However, what is intriguing is the kinds of information control behaviors which television is

predicting. If the different measures of information control are thought of in developmental stages with "awareness of sources" being the least difficult and "evaluation of means" and "achievement of outcomes" being the most difficult, the role of television might be clarified. High television respondents seem to be doing best in the early development stages of information control. All of the measures which television relates to at $p<.05$ are "awareness of sources" measures. Television is not relating to the more "difficult" levels of information control.

The question of whether television leads to greater awareness of sources is not one which can be answered within the statistical model used here or under the usual field survey conditions. However, emphasis must be placed on the fact that television is predicting greater awareness of sources and, in particular, greater awareness of "better sources" --professionals, print media, and institutions. This is direct evidence against Hypothesis 1. It is also part of a very small body of evidence suggesting that television relates to "positive" behaviors on the part of high TV users. The more usual evidence "condemns" television by showing that high television users are, for example, more escapists or less tuned in to reality. The findings here suggest that a replication of this study across socioeconomic status lines would be worthwhile to determine if the relationship of television dependency to greater source awareness holds.

Additional evidence against Hypothesis 1 comes indirectly from the lack of relationship between television dependency and the more complex levels of information control. While it was predicted that

high television respondents would do worse on information control, results show that either they are doing better or, at the more complex levels of control, they are neither doing better nor worse.

The fact that television does not predict performance on the more difficult levels of information control does suggest directions for future research. Several past studies have suggested that television simply isn't providing viewers with the kinds of information needed for decision making. The findings of this study add another small increment of evidence to this argument. However, what is needed is content analyses of actual media content to focus directly on such issues. The challenges that TV content is "empty" of information for decision making have, to date, all been gleaned from user studies such as the one reported here.

It is also interesting to focus in on the kinds of professional and institutional sources toward which television is predicting awareness. High TV respondents are more aware of professionals with poverty institution links--social workers and public health workers. This finding suggests that demographic variables may be contaminating the results.

The very respondents who were high television dependents were also most likely to be "hard-core" poor--lower in socioeconomic status, more likely to be on welfare, more likely to be female. These very same respondents are also more likely to be in contact with the type of "poverty institution" sources which high television is predicting. Demographic variables, then, may be accounting for the results. What is needed to ferret out this problem is a replication of this study across

a broad range of socioeconomic levels. Or, perhaps, a statistical effort to control the effects of the demographic variables would be warranted.

Even with the suggestion that demography may be accounting for the results, the pattern of findings suggests a problem for the poverty practitioner. The "more poor" ghetto residents seem to be the ones who are in greater contact with professionals combing into the ghetto. These same respondents are also more dependent on television. Yet, these same respondents are not more likely to show "better" decision making at the more complex levels of information control. Such results do not speak well for the efforts of poverty practitioners in the ghetto. This problem will be discussed in more detail later.

Hypothesis 2

The second hypothesis in this study dealt with the relationship of gregariousness to information control. The original statement of this hypothesis was as follows:

> H_2: Black urban ghetto residents who are high gregarious will show lower levels of information control than black urban ghetto residents who are low gregarious.

Of the 33 tests on this hypothesis, results were as predicted on seven variables, near significant in the right direction ($p<.10$) on one variable, and not significant on 15 variables. For the remaining 10 variables, results were significant in the direction opposite to that predicted on nine measures and near significant ($p<.10$) in the opposite direction on one measure. Table 18 summarizes the results.

Results showed that generally high gregarious respondents had less control than low gregarious respondents because they were more likely

Table 18. Summary of results on the relationship of gregariousness to the criterion measures of information control.

High gregarious respondents showed more control by reporting . . .	High gregarious respondents showed less control by reporting . . .	High gregarious respondents were not different on . . .
Attitude toward outcome		
		attitude toward credit
Awareness of sources (past use for information)		
more use pastors	more use in-ghetto sources	use of lawyers
more use teachers	more use co-workers	
more use civil rights leaders		
more use doctors		
more use public housing		
more use social workers		
more use public health ($p<.10$)		
more use professionals		
Awareness of sources (naming information sources on 10 problems)		
more sources in general	more people sources	no. print media
	more in-ghetto sources	no. of stores
		no. of institutions
		no. of professionals
		no. of service organizations
Knowledge of means to achieve outcome		
more means		no. of in-ghetto means
		naming of bank

Table 18 (cont'd.)

High gregarious respondents showed *more control* by reporting . . .	High gregarious respondents showed less control by reporting . . .	High gregarious respondents were not different on . . .
Use of criteria for evaluation		
	more importance "friendly"	importance "good deal"
	more discrepancy from experts ($p<.10$)	
Evaluation of means		
		credit rate knowledge
		discrepancy from experts
		discrepancy from norms
History of means used in the past		
	more use of credit	no. of charge accounts
	more use in-ghetto credit	political activity
Demography and related psychological variable		
High gregarious respondents were		
. . . more often on welfare		education
. . . younger		socioeconomic status
. . . from larger families		sex

[a]All relationships reported as showing differences are at $p<.05$ unless otherwise specified.

to have:

1. Reported the use of in-ghetto sources for information in the past.

2. Reported the use of co-workers as information sources in the past.

3. Named more people sources on 10 problems.

4. Named more in-ghetto sources on 10 problems.

5. Placed more importance on "friendly" on a criterion on which to judge means of getting credit.

6. Tended to rank criteria for evaluating credit means differently from consumer "experts" ($p<.10$).

7. Used credit more frequently in the past.

8. Used in-ghetto credit more frequently in the past.

On the other hand, the following results show a reversal of the prediction. High gregarious respondents showed more control than low gregarious respondents because they were more likely to have:

1. Reported the use of pastors for information in the past.

2. Reported the use of teachers for information in the past.

3. Reported the use of civil rights leaders for information in the past.

4. Reported the use of doctors for information in the past.

5. Reported the use of social workers for information in the past.

6. Reported the use of professionals generally for information in the past.

7. Named more sources of information for 10 hypothetical problems.

8. Named more means for acquiring credit.

In addition, the tests on the demographic variables find the high gregarious respondents were more likely to be on welfare. In addition,

they were younger and from larger families. Also, the results of the psychological measure--internal-external control--showed high gregarious respondents were more likely to be "internal controllers."

Two major conclusions emerge from these findings. Again (as with television), it is helpful to think of the various components of information control in developmental stages. In terms of these stages, high gregarious respondents do exceedingly well in the first component--"awareness of sources" by naming more sources of all kinds. However, when it comes to "higher" levels of information control, gregarious respondents do not fare so well. At these higher levels either gregariousness does not predict information control or is related to less information control.

The very high level of source awareness on the part of gregarious respondents may be the root of the problem. Source naming by these respondents seems to be indiscriminate. While more professional sources were used, more in-ghetto sources were used as well. More potential sources on 10 hypothetical problems were named generally but more in-ghetto sources were also named.

If the naming of sources on hypothetical problems is thought of as a more difficult level of control than gross indications of source use in the past, additional insight is possible. At the level of reporting source use in the past, gregariousness relates significantly to almost every measure. At the more difficult level of naming sources for hypothetical problems, the predictive power of gregariousness decreases.

This "indiscriminate" source naming behavior on the part of high gregarious respondents might, by inference, explain why these respondents show less control at higher information control levels. On the one hand, the situation may be one of information overload--too many source possibilities, too much information, and no means for discriminating among. On the other hand, it may be that the kind of contact high gregarious respondents have with information sources is not conducive to acquiring more control.

This latter possibility brings up the problem of the demographic variables. High gregarious respondents were more likely to be on welfare, younger, and from larger families. As with the high television respondents, we find gleanings of evidence that high gregarious respondents are more likely to be hard-core poor. If this is so, then it can be reasoned that many of the contacts high gregarious respondents have with professional sources are "caretaking" or "poverty program administration contacts." Past research has indicated a strong lack of trust on the part of welfare recipients for their caseworkers, for example. Thus, while high contact with these professionals might well carry potentially useful information for control at the "content" level, this potential may be negated at the "relationship" level. This problem is analogous to any situation in which lower source credibility relates to less acceptance of a message. Another possibility, too, is that poverty practitioners are forcing themselves on the most visible members of the ghetto--the high gregarious. If this is the case, then the ghetto resident might resist any messages from the poverty worker other than those that are absolutely necessary. In this case, for example, a case-

worker might well meet resistance when trying to help a client with budgeting problems not directly tied to welfare requirements. Ferreting out these notions would require additional analyses of the present data and possibly a replication of the present study for the specific purpose of gleaning what is gained from interpersonal contacts. One decided problem with these conclusions is the tenuous nature of any inferences on the "content" of informational systems drawn from user reports.

It is important to note that where gregariousness does predict on the "higher" levels of information control, the result is always less information control. Thus, while television dependency did not seem to relate to skills at these higher levels of information control, gregariousness is having a negative effect. The results have an internal consistency which gives added support to conclusions. Generally gregarious respondents are more aware of all types of sources. Generally, they more often use name of in-ghetto sources for information. And, generally, they report more use of "in-ghetto" means for problem solutions.

None of these findings are astounding, of course, because by definition gregarious respondents are more inculcated into the in-ghetto peer network systems. They are expected to show greater dependence on this system. Ironically, the situation seems to be one in which the more gregarious respondent gets more of every kind of contact--from the in-ghetto system and the establishment system as well. Perhaps, the very fact that he is gregarious makes that respondent seek the "caretaking services" of the establishment more aggressively. However, we find that this increased contact with the "establishment system" is not helping and, indeed, may be hurting in terms of information control. These

inferences, of course, go far beyond the present data but they provide speculation and possible direction for future research efforts.

In addition, these results raise practical problems for the poverty practitioner. It can be reasoned from the data that two "informational" forces are working on high gregarious respondents--establishment information and ghetto network information. On the basis of prior communication research, it can be concluded that the content of the ghetto network will be more important to the ghetto resident. The evidence presented here would suggest that the "establishment" might have more success in terms of raising abilities at information control by reaching the less gregarious poor. Yet, these results suggest that these are not the clients the establishment is reaching.

At this point, it is important to emphasize a major middle-class bias which inevitably creeps into this discussion. Greater use of credit and greater use of in-ghetto sources were termed "less information control" for the purposes of this study. While a great deal of past research supports this contention, the underlying assumption is essentially middle-class. The high gregarious ghetto resident who is dependent on his peer network is functioning within a social system which is essentially imposed on him from the outside. This high gregarious respondent manages to get more credit. In doing so, he uses more "in-ghetto" credit means which are more costly to him. Yet, in an interesting turn of events, he is beating the system. Chances are he is ineligible for the "better" means of credit so he is achieving the best possible outcomes the system allows.

Hypothesis 3

The third hypothesis in this study dealt with the role of diversity of contact in information control:

> H_3: Black urban ghetto residents with high diversity interpersonal networks will have higher levels of information control than black urban ghetto residents with low diversity interpersonal networks.

See Table 19 for a summary of results. Results show that the diversity main effect was not significant for 21 measures, significant in the direction opposite to that predicted for two measures, significant in the predicted direction for six measures, and near significant ($p<.10$) in the predicted direction for four measures. It is also important to note at this point that diversity played an interactive role with gregariousness on 11 measures. These interaction results will be discussed under Hypothesis 5. It will suffice to say here that the diversity main effects were not altered by these interactions. Rather, the conditions of low versus high diversity served to intensify the relationship of gregariousness to the criterion variables.

The results indicate that the diversity main effect hypothesis received the greatest amount of support of the three main effect hypotheses. High diversity respondents showed higher levels of information control than low diversity respondents by:

1. Reporting more use of pastors for information in the past.
2. Reporting more use of teachers for information in the past.
3. Reporting more use of civil rights leaders for information in the past.
4. Reporting more use of doctors for information in the past ($p<.10$).

Table 19. Summary of results on the relationship of diversity to the criterion measures of information control.

High diversity respondents showed more control by reporting . . .	High diversity respondents showed less control by reporting . . .	High diversity respondents were not different on . . .
Attitude toward outcome		
		attitude toward credit
Awareness of sources (past use for information)		
more use of pastors[b]		use of in-ghetto sources[b]
more use of teachers[b]		use of lawyers
more use of civil rights leaders		use of public housing
more use of doctors ($p<.10$)		use of social workers[b]
more use of professionals		use of co-workers
		use of public health
Awareness of sources (naming information sources on 10 problems)		
more sources in general ($p<.10$)		no. of print media
more professionals ($p<.10$)[b]		no. of stores[b]
		no. of people[b]
		no. of institutions
		no. of in-ghetto sources[b]
		no. of service organizations
Knowledge of means to achieve outcome		
naming of bank ($p<.10$)[b]		no. of means named[b]
		no. of in-ghetto means[b]

Table 19 (cont'd.)

High diversity respondents showed more control by reporting . . .	High diversity respondents showed less control by reporting . . .	High diversity respondents were not different on . . .
Use of criteria for evaluation		
		importance "friendly"
		importance "good deal"
		discrepancy from experts[b]
Evaluation of means		
less discrepancy from experts	less discrepancy from norm	credit rate knowledge
History of means used in the past		
greater political activity	more charge accounts[b]	use of credit[b]
		use of in-ghetto credit
Demography and related psychological variable		
High diversity respondents were		
. . . of higher socioeconomic status		education
		marginal income status
. . . older		sex
		family size

[a]All relationships reported as showing differences are at $p<.05$ unless otherwise specified.

[b]On these measures, the tests of Hypothesis 5 indicated diversity played an interactive role with gregariousness. See the section of this chapter on Hypothesis 5.

5. Reporting more use of professionals for information in the past.

6. Tending to name more sources on 10 problems ($p<.10$).

7. Tending to name more professionals on 10 problems ($p<.10$).

8. Tending to name the bank more often as a credit means ($p<.10$).

9. Being less discrepant from experts in the evaluation of means.

10. Being more politically active.

High diversity respondents showed lower levels of information control than low diversity respondents by:

1. Being less discrepant from the norm on evaluation of means.

2. Having more charge accounts.

In addition, high diversity respondents were more likely than low diversity respondents to be of higher socioeconomic status and older.

These main effect results combined with the fact that diversity played a general interactive role with gregariousness suggests that diversity is by far the strongest predictor of information control. This result is somewhat disquieting because the diversity measure was one which, in part at least, tapped the extent to which a respondent got out of the ghetto. Essentially, high diverse respondents were those who were more cosmopolite, belonged to more and different organizations, traveled further to work, and talked with contacts more often about non-home related topics. Both psychologically and physically, the diverse respondent was able to achieve more distance from his ghetto home.

The sources he named for information were consistent with this definition. The diverse respondent was not more likely to name in-ghetto

sources or service organizations performing care-taking functions in the ghetto. Nor was he more likely to name social workers, public health officials, or public housing officials. His contact with both in-ghetto residents and the establishment caretakers coming into the ghetto was not what differentiated him. Rather, he named more pastors, teachers, civil rights leaders, and doctors--the kind of sources with whom contact is not necessarily poverty-related.

While the inferential leap is, perhaps, tenuous, these results add another small increment of evidence to some of the earlier propositions. What seems to be making the difference in information control are not the efforts of the establishment within the ghetto. Further research would need to be done to explore this proposition.

Unlike high television and high gregarious respondents, high diversity respondents are tending to achieve higher levels of information control. Neither television nor gregariousness predicted the ability to evaluate means. Diversity does, however, with high diversity respondents showing less discrepancy from expert evaluations. High diversity respondents also indicate greater political activity, the one measure here which relates to an outcome other than consumer credit.

One definite problem with the results is again the possible confounding effects of demography. High diversity respondents were of higher socioeconomic status. Logically, higher status ghetto residents get out of the ghetto more often. They have the resources to do so and often have jobs that take them out. The very act of getting out of the ghetto brings one into contact with more diverse people and, by assumption, more diverse informational inputs. A complete test of the role of diversity in information control, therefore, must await a replication of

of this study across socioeconomic lines.

A mention must be made of the two findings for which results were the opposite of those predicted. High diversity respondents showed less discrepancy from the normative evaluation of means which typified the sample as a whole. In originally conceiving this variable, it was thought that the more diverse respondent would be more discrepant from the ghetto norm. Conceptually, this should still be the case. The problem here is one of measurement. As it turned out, the sample's typical evaluation of means for consumer credit was very close, in gross terms, to the expert evaluation. The problem of measuring these "higher" levels of information control was a pervasive one for this study. It is a problem which limits, indeed, the conclusions of this study and will be discussed in more detail later in this chapter.

The fact that high diversity respondents had more charge accounts--a measure which conceptually indicates less control--can be explained best perhaps, by the higher socioeconomic status of these respondents. Again, a need is indicated for control of the effects of status.

Hypothesis 4

This hypothesis dealt with the interaction of diversity and television. As originally stated, the hypothesis read:

> H_4: Under conditions of low interpersonal network diversity, respondents with low television dependency will show lower levels of information control than respondents with high television dependency. Under conditions of high diversity, Hypothesis 1 will hold.

Of 33 tests on the criterion measures, significant results were found in only three cases. Since it is expected that at least two of these

interactions could be a result of chance, no conclusions will be drawn from the results. The general conclusion (limited, of course, by the problem of drawing conclusions from no differences) is that interpersonal network diversity does not play an interactive role with television dependency.

Hypothesis 5

This hypothesis dealt with the interaction of diversity and gregariousness. As originally stated, the hypothesis read:

> H_5: Under conditions of low interpersonal network diversity, Hypothesis 2 will hold. Under conditions of high diversity, high gregarious respondents will have higher levels of information control than low gregarious respondents.

The basic conceptual notion behind this hypothesis was that gregariousness without diversity is dysfunctional to information control.

Tests on the 33 criterion measures showed that 10 significant interactions were found between diversity and gregariousness. Six of these were in the direction predicted; four were reversals. Table 20 summarizes these results.

Seven of the significant interactions occur with criterion measures for which gregariousness had a main effect. Of these, six are in the predicted direction. In these cases, the main effect of gregariousness was not reversed by the interaction. Rather, the gregariousness main effect was intensified under high diversity conditions. Under low diversity conditions, the main effect was dampened yielding only a non-significant tendency for high gregarious respondents to be different from low gregarious respondents. Thus, for example, high gregarious

Table 20. Summary of results on the interactive relationship of diversity and gregariousness to the criterion measures of information control.

Component of information control	Variable	Results	Interpretation
Attitude toward outcome	no significant results		
Awareness of sources (past use)	use of in-ghetto sources[b]	HD: HG>LG LD: HG=LG	reversal of H_5
	use of pastors[b]	HD: HG>LG LD: HG=LG	as predicted at HD
	use of teachers[b]	HD: HG>LG LD: HG=LG	as predicted at HD
	use of social workers[b]	HD: HG>LG LD: HG=LG	as predicted at HD ($p<.10$)
	use of professionals[b]	HD: HG>LG LD: HG=LG	
Awareness of sources (naming on 10 problems)	no. of stores named[a]	HD: HG>LG LD: HG<LG	reversal of H_5
	no. of people named[b]	HD: HG=LG LD: HG>LG	as predicted
	no. of in-ghetto named[b]	HD: HG=LG LD: HG>LG	as predicted
Knowledge of means to achieve outcomes	no. of in-ghetto means named[a]	HD: HG>LG LD: HG<LG	reversal of H_5
	naming of bank[a]	HD: HG=LG LD: HG<LG	as predicted ($p<.10$)
Use of criteria for evaluation	no significant results		

Table 20 (cont'd.)

Component of information control	Variable	Results	Interpretation
Evaluation of means	no significant results		
History of means used in the past	frequency credit use[b]	HD: HG>LG LD: HG=LG	reversal of H_5

[a]For these three measures, gregariousness did not have a significant main effect.

[b]For these eight measures, gregarious had a significant main effect. In all cases, high gregarious respondents showed more of the indicated response. None of the interaction effects reversed the main effect.

respondents were more likely to use in-ghetto sources in the past. Under high diversity conditions, high gregarious respondents are significantly more likely to have used in-ghetto sources. Under low diversity, the same trend exists but is not significant.

What seems to be happening is that where high gregarious respondents showed more control, high diversity conditions intensify this result. However, where more gregarious respondents showed less information control, high diversity conditions had the same impact. For the most part, the evidence supports Hypothesis 5 for those measures where gregariousness was a significant main effect predictor. However, the expected difference between high and low gregarious respondents under low diversity conditions was not found.

For the three measures on which gregariousness was not a significant main effect predictor, the gregarious-diversity interaction is as predicted in only one case. Again, however, the same conclusions must be drawn. Diversity relates to improved information control only if gregariousness does; diversity relates to lessened control only if gregariousness does.

It is important to note that generally, the diversity-gregariousness interaction did not alter the overall main effects for either gregariousness or diversity. The results do, however, raise questions about the role of diversity. Results generally suggest that at the less complex levels of information control, diversity and gregariousness are playing an interactive role. Diversity relates to improved control on the part of high gregarious respondents only if gregariousness itself relates to improved control. In addition, the respondents who show

"better" information control at the more complex control levels seem to be those who are simply high in diversity.

Throughout this discussion of the gregariousness-diversity interaction, the strength of gregariousness as a predictor of greater activity on the part of high gregarious respondents stands out. High gregarious respondents name more sources of all types--both professional and non-professional, in-ghetto and out. The interaction with diversity generally intensifies this "hyper-activity." It is interesting to speculate on why the high gregarious respondents are so involved. It may well be that this is another by-product of the gregarious respondents greater contact with the establishment working within the ghetto. Whatever its origin, the visible evidence of the high gregarious respondents frequent interaction with the "establishment" might label him as an opinion leader within the ghetto. It would also be interesting to determine in future work if high gregarious middle-income respondents show the same kind of "hyper-activity."

Hypothesis 6

This hypothesis was one of two which specified the kinds of respondents who would show the extremes of information control. This hypothesis specified that:

> H_6: Isolated respondents--those with low television dependency plus low gregariousness plus low diversity--will show the lowest levels of information control.

The statistical test for this hypothesis was strict, demanding that the one cell of isolated respondents be significantly different from the average mean for all other cells. Results indicate a trend only, with

the brunt of the evidence favoring the hypothesis. Of the 33 criterion measures, the test of this hypothesis was significant on 11 measures. For eight of these the results were in the direction predicted (with only three tests significant at $p<.05$ and five significant at $p<.10$). On three criterion measures, isolated respondents showed more control (one at $p<.10$).

Results in the direction predicted by the hypothesis showed that isolated respondents indicated lower control by:

1. Being more favorable toward credit (n.s. trend).
2. Using fewer teachers as information sources in the past (n.s. trend).
3. Using fewer public health officials as information sources in the past (n.s. trend).
4. Using fewer professionals as information sources in the past (n.s. trend).
5. Naming more in-ghetto means of acquiring credit.
6. Being more discrepant from experts on evaluation of means.
7. Being least politically active.

On the other hand, results indicated that isolated respondents achieved higher levels of control by:

1. Naming more means for acquiring credit.
2. Using fewer in-ghetto credit means (n.s. trend).
3. Having the least number of charge accounts.

There are so few significant results at $p<.05$ that any conclusions based on the trends must be only preliminary. The results are generally in the direction predicted with the few exceptions of not having an interpretable pattern. If anything, what appears to be the trend is that

isolated respondents show worse information control at the lower levels of control and better information control at the higher levels.

One possibility does need to be explored in future research. Results from prior sections indicated that the more isolated respondents were more likely to be of higher socioeconomic status. It was found that low gregarious respondents were of significantly higher status than high gregarious respondents. It was also found that low diversity respondents were less likely to be on welfare. The fact that low television respondents were of higher socioeconomic status confounds this trend. However, further analyses on the present data could determine more precisely the socioeconomic character of the isolates. If the isolates are, indeed, of higher socioeconomic status, then an assumption on which practitioners have been working is not supported. Prior work has assumed that the isolates or "the unreachable" poor were of lower socioeconomic status.

A related proposition to test is the notion that the isolates are not simply isolated but alienated as well. It might be, for example, that the isolated are of higher socioeconomic status relative to their peers but not high enough to get out of the ghetto. It might also be that isolated respondents are those who want to get out of the ghetto. These tentative notions might offer directions for exploring the meaning of isolation in the ghetto environment.

Hypothesis 7

This hypothesis specified the respondents who would show the highest levels of information control. The hypothesis actually consisted

of two parts.

> H_7: Integrated respondents--those with high gregariousness and high interpersonal network diversity--will show the highest levels of information control with low television dependency respondents showing higher control than high television dependency respondents.

The results on the second portion of this hypothesis (predicting a difference between high and low TV integrated respondents) were entirely not significant. Generally, then, levels of television dependency made no difference in discriminating the "best" information controllers. Certainly, this result is in keeping with the findings from Hypothesis 1 dealing with TV main effects where TV played a role only at the lower level components of information control.

The first portion of this hypothesis is closely related to Hypothesis 5 which predicted a gregariousness-diversity interaction. The difference here is that Hypothesis 7 is testing whether the combination of high gregariousness and high diversity relates to information control levels significantly "better" than that of all other respondents.

Results on this portion of Hypothesis 7 were confirmed only for those measures in which high diversity and/or high gregariousness related to "better" control. Integrated respondents showed significantly more control than all other respondents by:

1. Using more pastors for information in the past.
2. Using more teachers for information in the past.
3. Using more civil rights leaders for information in the past.
4. Using more doctors for information in the past.
5. Using more social workers for information in the past.
6. Using more public health officials for information in

the past (at high TV only).

7. Using more professionals in general for information in the past.

8. Being more politically active.

Under those conditions in which gregariousness related to "less" information control and diversity intensified this result, then the integrated respondents showed least control by:

1. Using more in-ghetto sources in the past.

2. Naming fewer possible sources on 10 hypothetical problems.

3. Naming more stores.

In essence, then, these results duplicate those outlined in the preceding discussions of Hypotheses 2, 3, and 5. The only added increment of evidence here is that diversity and gregariousness combine to yield respondents who are significantly better or significantly worse than all other respondents. This provides yet more support for the notion that diversity (which as a main effect leads overwhelmingly to better control) only "helps" control under certain conditions.

CHAPTER V

SUMMARY AND DISCUSSION

Brief Summary of Results and Conclusions

The discussion of the hypotheses has, of necessity, been complex because of the number of subtle relationships which emerged. Perhaps the most general finding is that the hypotheses as originally stated were too simplistic. First, they did not differentiate between the various components of information control nor did they posit any developmental relationships between these components. Second, they posited that all predictors would play a role in all relationships. What is emerging, instead, is a picture of information control in which predictors sometimes work alone, sometimes together. Future research on the same topic will need to account for these subtle variations and begin the research process with a much more refined model.

Briefly, the results in terms of the originally stated hypotheses were:

1. High television dependency did not relate to less information control as predicted. Instead, high television dependency related to more information control but only at the "lower level" components. For example, TV predicted awareness of sources but it did not predict the more difficult evaluation of means. Television predicted awareness of only certain kinds of sources--institutions and the print media and professionals with poverty-institutional type links.

2. High gregariousness did not relate generally to less control, as predicted. Gregariousness related to awareness of sources, regardless of source quality. High gregarious respondents used and named more sources, both in-ghetto and out, both professional and non-professional. The only types of sources for which high gregariousness did not predict greater awareness were print media and institutional sources.

3. High diversity did relate generally to more control, as predicted. Diversity predicted at most all levels of information control. Diversity related to increased awareness of professional sources as well as increased ability at the more complex information control components.

4. Diversity had no interactive role with levels of television.

5. Diversity played an interactive role with levels of gregariousness. These interactions dampened neither the main effects of gregariousness nor diversity. However, when gregariousness was a strong predictor, diversity intensified the relationship whether it was toward "better" or "worse" control. When diversity was an independent predictor, it related to "better" control. In addition, while television and gregarious were significant predictors primarily at the lower level components of information control, diversity was significant at higher levels.

6. Isolated respondents (low gregarious, low diversity, low TV) were usually not significantly different from other respondents although there was a trend in the predicted direction of less control.

7. Integrated respondents high gregariousness and high diversity) were generally "better" controllers than all other respondents.

A number of theoretical issues and directions for future research were raised by these findings. The major product of this study, of course, is data on which to refine the conceptualization of the information control process posited in Chapter I. While the original conceptualization was based on the best evidence available, the amount of available evidence was small and the resulting model was far too simplistic. Results indicate a need to allow for both independent and

interactive effects of the predictors on one or more of several developmental levels of information control. Future research in the area will need to place emphasis on cleaning up confusions in the model. The conceptualization of information control, for example, needs a great deal of work both theoretically and in terms of measurement. At this point, a factor analysis of the criterion variables would be helpful. This is, unfortunately, impossible with the current data because the measures were not operationally independent. But, future work might start by emphasizing the problem of measuring information control and, perhaps, attempting to scale the various components.

In addition, the need for content analysis of the information available in the social system is pinpointed. Many inferences have been made about the informational system based on gleanings from this user study. It was assumed, for example, that television does not have in its programming informational content relating to the more complex levels of information control. It was also assumed that the establishment poverty worker-client interaction may negate information gains because of relational problems. Such propositions as these can only be tackled with analysis of the actual information in these systems.

The whole role of demography and its relationship to information control was raised. The data here suggest that the respondents showing the least control might well be the lowest in socioeconomic status. The question then becomes whether statistical controls on socioeconomic status will change the theoretical results. In addition, a replication of this study across socioeconomic status levels should provide insights.

The best predictor of information control was diversity, with diversity respondents showing more control on more complex control measures. This finding raises a problem for the practitioner which has been discussed briefly earlier. The problem is that diversity tapped the extent to which a respondent got out of the ghetto. In contrast, the findings indicate that those respondents who are most in touch with establishment efforts coming into the ghetto are not doing significantly better in terms of the more complex levels of information control and, in some cases, are doing significantly worse. Thus, television (which comes into the ghetto) only relates to better control at the least complex levels of control. Gregariousness relates to both better and worse control at the least complex levels of and only to less control at the most complex levels. Yet, high gregarious respondents are those who indicated more contact with establishment professionals coming into the ghetto. The one group of respondents who most clearly are doing consistently better on control are the high diversity respondents.

A number of possible explanations for these findings were offered throughout Chapter IV. Demographic variables may be accounting for the differences. Source credibility factors may be at work. Whatever the underlying causes, however, the results have implications for the poverty practitioner. Efforts of the establishment are currently stepping up within ghettos. Cities are opening information centers in inner cities. Establishment agencies are opening storefronts so they can bring their "wares" closer to the ghetto residents. It is hoped that these efforts will increase the informational diversity within the ghetto. Yet, these findings suggest that such efforts may be artificial.

Limitations of this Study

This study has a number of limitations some of which have been noted already. The most limiting is the fact that many portions of this study were exploratory in nature. Information control was not explicated as a concept in past work so the conceptualization and measurement here break new ground. The measurement problems need a great deal of work. In addition, the theoretical notion of information control needs more thought. What does it mean to use information better? How can a definition of a "better" outcome be determined for research purposes? What is a more "functional" criteria? The findings of this study are confounded by these types of definitional problems. The main contribution of the current study is probably that it opens up a new area of mass communication research by focusing on a class of criterion variables rarely seen in the literature.

Another major limitation of this study is that information control was measured almost entirely as it related to only one outcome--"getting consumer credit." Future research is needed to test the notions presented here across a variety of "outcomes."

A Revised Model of Information Control Including the Role of Newspapers

The final section of this chapter will present a revised model of information control based on the findings. In order to amplify the findings so they apply more generally to all the mass media, an additional post hoc analysis was done including dependency on newspapers along with the three predictor variables used for the main body of this study (television dependency, gregariousness, and diversity). To add this

additional dimension, a multiple regression was completed of the relationship of the now four predictor variables on the criterion variables. Given that the analyses of variances reported in Chapter III indicated a number of interactions and many subtle interrelationships among predictors, multiple regression is not the best model. However, as a statistical approach, multiple regression offered the most straightforward method of determining the role of newspapers.

The role of newspapers in information control. Table 21 presents the results of the multiple regression analysis of the relationship of all four predictors to the criterions. The purpose here is to pinpoint the possible role of newspapers so the discussion will focus only on those aspects of this table. The entire results are presented, however, because they provide in a relatively compact space an overview of the entire set of findings.[1] A caution must be made, however, in that findings from the multiple regression are not always analagous to the analyses of variances. The former assumes linear relationships, the latter does not.

Results from the simple correlations of newspaper dependency (high values indicating higher use and dependency on newspapers) show that this predictor is related significantly to 11 of the criterion

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[1]As an aside, variance explained in the multiple regression is one indicator of the "social significance" of the findings. Using a linear model, variance explained is not large. While most of the Multiple Rs were significant, the maximum variance explained in a predictor is 19%. One possibility for the future is that improved measurement of the criterion variables will yield greater predictive power and greater "social significance."

Table 21. Multiple regression analysis of the relationship of four predictor variables (television dependency, newspaper dependency, gregariousness, and interpersonal network diversity) to the criterion variables (information control).

Criterion variables	Simple correlations[a]				Contribution to proportion[b] of variance accounted for in criterion variable					Mupltiple correlation		
	TV	N	G	D	TV +	N +	G +	D =		R^2	R	p
ATTITUDE TOWARD OUTCOME												
attitude toward using credit	-.04	-.03	-.03	-.04	.002	.001	.001	.002		.01	.07	n.s.
AWARENESS OF INFORMATION SOURCES												
General sources (past use)												
use of in-ghetto sources	.10	.02	.26	.07	.013	.000	.061	.005		.08	.28	p<.001
use of pastor	.09	.12	.23	.12	.010	.010	.045	.015		.08	.28	p<.001
use of teacher	.02	.13	.19	.21	.002	.010	.033	.046		.09	.30	p<.001
use of civil rights leader	-.08	.07	.16	.17	.004	.004	.028	.028		.06	.25	p<.001
use of lawyer	-.00	-.02	.11	.06	.000	.001	.012	.004		.02	.13	n.s.
use of doctor	.14	.07	.15	.02	.020	.004	.018	.000		.04	.20	p<.01
use of public housing agency	.01	-.07	.17	.06	.000	.007	.029	.004		.04	.20	p<.01
use of social worker	.17	-.16	.18	-.08	.028	.028	.027	.007		.09	.30	p<.001
use of co-worker	-.03	.10	.13	.11	.000	.008	.017	.013		.04	.20	p<.01
use of public health agency	.13	-.11	.12	-.06	.016	.013	.011	.003		.04	.21	p<.01
use of professionals	.15	-.01	.28	.08	.023	.001	.068	.006		.10	.31	p<.001
Sources named for information on 10 problems												
total sources named	.05	.14	.11	.09	.004	.016	.010	.008		.04	.19	p<.01
no. of media named	.02	.10	-.11	-.04	.000	.012	.012	.002		.03	.16	p<.05
no. of stores	.06	-.03	.07	.03	.004	.002	.004	.001		.01	.10	n.s.
no. of people	-.02	.07	.19	.05	.000	.004	.038	.002		.05	.21	p<.01
no. of institutions	.12	.11	-.07	-.03	.015	.011	.007	.001		.03	.18	p<.05
no. of professionals	.03	.01	.09	.05	.001	.000	.007	.002		.01	.10	n.s.

Table 21 (cont'd.)

Criterion variables	Simple correlations[a]				Contribution to proportion[b] of variance accounted for in criterion variable				Multiple correlation		
	TV	N	G	D	TV +	N +	G +	D =	R^2	R	p
Sources named for information on 10 problems											
no. of in-ghetto	-.02	.04	.20	.02	.000	.001	.042	.000	.04	.21	p<.01
no. of service organizations	.12	.07	.05	.02	.014	.003	.001	.000	.02	.14	n.s.
KNOWLEDGE OF MEANS TO ACHIEVE OUTCOME: consumer credit											
no. of means named	.06	.02	.18	.00	.004	.000	.029	.000	.03	.18	p<.05
no. in-ghetto means named	-.09	-.04	.08	-.04	.009	.001	.009	.002	.02	.14	n.s.
naming of bank	-.05	-.00	.04	.10	.001	.000	.002	.009	.01	.11	n.s.
USE OF CRITERIA FOR EVALUATION											
importance of "friendly"[c]	-.08	.19	-.06	.02	.005	.037	.002	.001	.04	.21	p<.01
importance of "gives good deal"[c]	.02	-.12	-.00	-.01	.000	.014	.000	.000	.01	.12	n.s.
discrepancy from expert rank[c]	.05	-.23	.03	-.03	.003	.054	.000	.001	.06	.24	p<.001
EVALUATION OF MEANS											
credit rate knowledge	-.08	.03	-.02	-.03	.006	.002	.000	.001	.01	.10	n.s.
discrepancy from expert evaluation[c]	.00	-.05	-.02	-.16	.000	.000	.000	.025	.03	.16	n.s.
discrepancy from norm evaluation[c]	.10	.01	.00	-.16	.008	.000	.000	.027	.03	.19	p<.05

Table 21 (cont'd.)

Criterion variables	Simple correlations[a]				Contribution to proportion[b] of variance accounted for in criterion variable				Multiple correlation		
	TV	N	G	D	TV +	N +	G +	D =	R^2	R	p
HISTORY OF MEANS USED IN PAST											
frequency credit use	.12	-.09	.24	-.03	.013	.010	.051	.001	.07	.27	p<.001
use of in-ghetto credit means	.04	-.03	.24	.07	.002	.002	.053	.004	.06	.25	p<.001
no. of charge accounts	-.09	.11	-.00	.17	.005	.011	.000	.027	.04	.21	p<.01
political activity	.08	.10	.08	.41	.015	.002	.003	.619	.19	.43	p<.001
DEMOGRAPHY											
education	-.08	.29	.06	.05	.005	.087	.004	.002	.10	.31	p<.001
socioeconomic status	-.17	.14	.00	.18	.023	.017	.000	.031	.07	.27	p<.001
marginal income status	.13	-.16	.08	-.12	.014	.024	.005	.015	.06	.24	p<.001
age	.01	-.01	-.16	.16	.001	.001	.027	.026	.06	.23	p<.001
sex	-.29	-.06	.00	.16	.077	.003	.001	.025	.11	.33	p<.001
family size	.05	-.07	.20	.04	.003	.006	.037	.002	.05	.22	p<.01

[a]Simple Pearson product-moment correlations for the relationship of each predictor variable independently to the criterion variables. Correlations of ±.10 are significant at p<.05; ±.11 to ±.12 at p<.01; ±.13 or greater at p<.001.

[b]These figures tap the proportion of the variance accounted for in each criterion by each predictor variable. The figures are the partial r's for each predictor variable squared. The sum of the partial $r's^2$ across predictor variables equals the total proportion of variance accounted for in the criterion by all four predictors combined.

[c]Respondent n's for all correlations was 366 except on these five variables where the n was 314.

measures. Results suggest that high newspaper respondents show more information control by:

1. Using pastors more for information in the past.
2. Using teachers more for information in the past.
3. Naming more total sources on 10 problems.
4. Naming more print media as sources on 10 problems.
5. Naming more institutions as sources on 10 problems.
6. Placing less importance on "friendly" as a criterion for evaluating credit means.
7. Placing more importance on "gives good deal" as a criterion for evaluating credit means.
8. Being more politically active.

On the other hand, the results indicate that high newspaper respondents showed less information control than low newspaper respondents by:

1. Using fewer social workers as information sources in the past.
2. Using the public health agency less for information in the past.
3. Having more charge accounts.

In addition, high newspaper respondents were significantly more likely to be more educated and of higher socioeconomic status while they were significantly less likely to be on welfare.

Again, the problem of the relationship of the demographic variables to the predictors is apparent. The three variables for which newspaper dependency has a negative relationship to information control can readily be explained in terms of demography. Respondents who have higher incomes would use social workers and public health agencies less and could afford to have more charge accounts. The demographic variables might account for the positive relationships of newspaper dependency to control equally

well. Within this limitation, however, the results provide some insights into the role of newspapers.

Generally, newspaper dependency is a better predictor than television at the more complex levels of information control. Newspaper dependency does predict well the more functional use of criteria for evaluating means, for example, and it predicts well the ability to name sources on hypothetical problems. These findings suggest that newspaper use is playing a role analagous to diversity of contact in information control. What little past work is available on information control suggests that of the mass media, the newspaper best serves the function of providing information for decision making. Whether this is because certain kinds of people who are better at information control choose to read newspapers or because people who live in more information-filled environments read newspapers or because newspapers impart this kind of content is a question for the future.

Revised model of information control. Figure 1 presents a model of the role of television, newspapers, gregariousness, and interpersonal network diversity in information control. The figure is derived from the results presented throughout Chapter IV. Results which were more strongly supported by the data are indicated in solid lines; those with more tentative support are in broken lines.

The model provides some additional insights. It suggests, for example, that the four predictors are operating in a complex manner at the least complex level of information control. As the complexity of information control increases, the relationships of the predictors to control become more straightforward. The model also indicates clearly

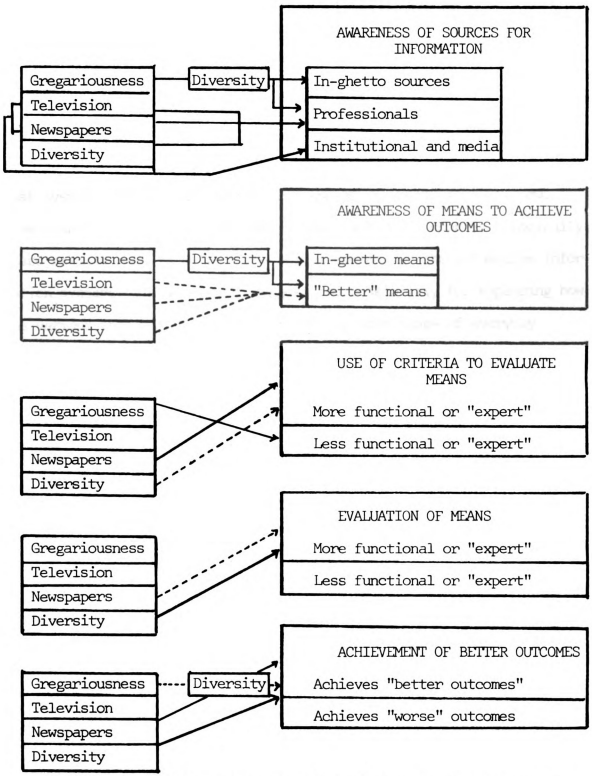

Figure 1. Model of the role of television, newspapers, gregariousness, and interpersonal network diversity in information control.

that newspapers and diversity of interpersonal contact seem to be relating consistently to "better" control.

The model also conjures up the notion of an "information mix." At the least complex level of information control, all of the information systems have a role in predicting awareness of sources. But, each particular information system predicts best those sources most relevant to that system. Gregariousness predicts use of in-ghetto sources; newspapers and television use of institutional and media sources. Logically, these results seem to reflect the actual content of the respective information systems. These results suggest the possibility for exploring how the various information systems mix in a broader range of everyday problems than was used in this study. The same research approach used here might be used on public affairs news or news of the black movement. The advantage of the latter topic is the researcher could be more assured that all the information systems--television, newspapers, the in-ghetto peer system, and the in-ghetto/out-ghetto interpersonal system--have informational content on the topic. One problem in this study may be that the major topic focus--consumer credit--is not one which is emphasized on television or in the interpersonal net.

The model also suggests an interesting problem for the researcher. While all four predictors have positive roles at the least complex levels of information control, at the most complex levels only two predictors have a positive role--newspapers and diversity. The original hypotheses for this study assumed some sort of additive relationship between the predictors using the notion that "a lot of everything" would be functional. Instead, the opposite appears to be the case.

Finally, this model also pinpoints that the significant step to be taken in this area of research will be on the measurement of information control. Thirty-three different measures of control were used in this study, increasing greatly the complexity of interpretation. If a small number of measures tapping the various developmental levels of control could be developed, the next stage of field work could produce more clarity and more parsimony.

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APPENDIX A

SAMPLE DESIGN

APPENDIX A

SAMPLE DESIGN

General Procedures[1]

Sampling for this study was carried out in four major phases: (1) selection of the sampling frame; (2) selection of primary sampling units (blocks within the sampling frame); (3) selection of secondary sampling units (households within blocks); and (4) selection of tertiary sampling units (respondents within households). Each of these phases is described in detail below.

Selection of the sampling frame. Several sources of information were used to define the sampling frame. Initially, the Welfare Federation of Cleveland supplied census tract data, specifying those areas within the city of Cleveland with the highest: (a) aid to dependent children; (b) general welfare cases; (c) illegitimate births; and (d) incidence of male juvenile delinquency. These data were corrected to December 1967.

The sampling frame defined by the above data was then further refined and reduced on the basis of block data from the 1960 U.S. Housing Census (U.S. Bureau of Census 1961). Census block data was used to further reduce the size of the sampling frame by selecting only those

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[1]John Bowes, one of the three members on the research team that launched this study, was in charge of the sampling design and wrote a preliminary version of this appendix which appeared in Greenberg, Bowes, and Dervin (1970). This new version here is revised and includes additional comparisons of the obtained sample to census data. References used for sampling include Ackoff (1953), Backstrom and Hursh (1963), and Kish (1965).

areas with the highest rates of: (a) deteriorating and dilapidated housing; (b) incomplete or inoperative plumbing in homes; (c) non-white occupancy; (d) crowding in homes (more than 1.01 persons per room); (e) lowest assessed value of owner-occupied dwellings; and (f) fewest average number of rooms per dwelling. With only a few exceptions, eligible areas had to have a non-white household density of 75% or greater. The few exceptions were areas where it was reasoned that black saturation had increased substantially above 75% in the nine years since the 1960 census.

As a final step in defining the sampling frame, the areas which remained eligible after the above process were further refined with information obtained from Mack Clemmons & Associates, a market research organization familiar with Cleveland's black neighborhoods. Immediately prior to selecting the sampling units, a visual check of the sampled area was made in order to eliminate blocks which were vacant, burned-out, entirely commercial or industrial, all-white, or middle-income.

Selection of a second sampling frame. Originally, it was thought that five replacement blocks would be enough to allow for replacement of each ineligible households and non-responses. However, during the course of field work it was found that in some of Cleveland's black neighborhoods, particularly the Glenville district, socioeconomic status varied greatly within relatively confined geographical areas. Despite the fact that census tract and block data indicated that these areas were relatively depressed, enough lower middle-class respondents were being selected to necessitate replacement of some of the more affluent blocks. In addition, a high percentage of "not at homes" exhausted the supply of replacements built into the original sample.

These problems necessitated the selection of a second sample to provide additional replacement households and to increase the proportion of very low-income or unemployed black respondents. Information gathered from residents and interviewers helped in spotting extremely impoverished areas for this second frame. The second sampling frame lay entirely within the boundaries of the initial frame but constituted a much more restricted area (principally the Hough district). Procedures for selection of blocks, households, and respondents within both frames was identical.

Selection of blocks. The primary sampling unit in this study was the block as defined by the 1960 census for the Cleveland SMSA. All blocks were selected into the sample by the following process:

1. All blocks in the sampling frame were listed with the number of black households on each block. The number of black households was totalled across all blocks yielding the population in terms of households.

2. Balancing cost and precision, the desired sample size was set at 350. For this purpose, an original sample was drawn consisting of 35 blocks with five additional blocks for replacement. An additional 10 replacement blocks were later drawn because of the problems described in the section above. On each block, 10 interviews were to be obtained.

3. The number of black households in the sampling frame was then divided by the number of blocks to sampled. This quotient constituted a "skip-interval" used to proceed, block by block, through the total blocks listed in the sampling frame. Use of this interval assured that all blocks included in the frame would have a chance proportionate to their size of being included in the sample. The greater the number of black households on a block, the greater the probability of that block being selected into the sample. It should be emphasized that since the Hough district was sampled twice (in sampling from the original frame and in re-sampling for additional replacement blocks in the second sampling frame), this area had roughly twice the chance of being included in the sample.

4. When the replacement sampling frame was defined and 10 blocks sampled from it, the procedures listed above were used. Since the replacement sampling frame was a sub-set of the original sampling frame, those blocks drawn into the original sample were not replaced for possible selection into the second sample.

Originally, 40 blocks were drawn into the sample from the first sampling frame. Of these, three were replaced before the start of field work because they were entirely commercial, had fewer than 15 households, or were divided by railroad yards. These three blocks were replaced with the next useable block to the east. An additional 12 blocks were eliminated from the original sample because they were middle-class or lost to demolition or urban renewal. Thus, of the original 40 blocks, 25 were used, three were replaced with a neighboring block, and 12 were eliminated. An additional 10 blocks were drawn into the sample from the second sampling frame. Of these, six were used. The remaining four were not used because sufficient replacements were obtained from other blocks.

In all, interviews were conducted on 34 blocks. Table 22 lists characteristics of the sampled blocks in conjunction with data descriptive of the entire City of Cleveland.

Selection of households within a given block. The secondary sampling unit for this study was households within blocks. Balancing the desirability of sampling many diverse points on a block against the expense of doing so, the following procedures were used.

1. For reasons of economy (time and money), households were sampled in clusters of three adjacent (neighboring) households. To supply additional replacements, each block was oversampled by 50%. A total of 15 households (10 original and five replacements) were listed as eligible for each block. Since interviewing was to occur in clusters of three households, 15/3 or five sampling segments were to be distributed around a given block.

Table 22. Comparison of characteristics of the sampled blocks, an average sampled block, and the City of Cleveland.

Characteristic[a]	City of Cleveland N	%	The 34 sampled blocks[b] n	%	Average(mean)
Total population	790,000	---	20,810	---	594.57
Total housing units	282,914	100%	6,105	100%	174.43
Total occupied units	269,891	---	---	---	---
Total deteriorating and dilapidated units	50,436	18%	2,079	34%	59.4
Value of owner occupied units	$14,300	---	---	---	$10,014.00
Total renter occupied units	148,668	55%	4,282	70%	122.34
Total black households	67,464	25%	5,102	84%	145.77
Total units with 1.01 persons or more per room	27,686	10%	1,317	22%	37.62

[a]Data from the U.S. Bureau of Census, 1961.

[b]These include only the blocks on which interviews were completed.

2. By subtracting 15 (the number of households to be included in the sample) from the number of black households on a block and dividing the remainder by 5 (the number of sampling segments on a block), the quotient was then used as a skip interval. This assured that sampling points were evenly distributed around a block.

3. To carry out the selection of households, it was necessary for the interviewers to list all eligible households on a given block. To provide a starting point for the interviewers' listing procedures as well as to better insure that all households on the block had an equal chance of being included in the sample, one corner of a sampled block was randomly designated as the starting corner. The direction the interviewer was to proceed around the block (clockwise, counterclockwise) was also randomly specified. In addition, in order that some households by virtue of their location on a block not be systematically excluded, a number within the range of the skip interval was randomly selected. The interviewer was instructed to use the skip interval only after first counting off households totaling this randomly selected number, starting at the randomly selected corner and moving in the randomly selected direction.

4. On her first visit to the block, the interviewer used the above procedures to list the 15 eligible households on the block. Stores, factories, vacant buildings, and burnt-out buildings were not counted in the procedures. Interviewers were trained in systematic procedures which insured they did not accidently miss households. For multi-household units, for example, one method was to count lobby mailboxes, starting with the lowest numbered (or "A") and proceeding through the highest numbered (or "Z"). If the mailboxes lacked numbers or letters, they were counted from right to left and down to up. If there were no mailboxes (or doorbells in the lobby), the interviewer proceeded through the building counting off apartments from right to left on a given floor and from lower to upper floors. If apartments faced onto a landing or courtyard where right to left distinctions were difficult, households were counted in a counter-clockwise direction.

5. Upon completing the listing of 15 eligible households on a block, the interviewer was to contact the households in the order of their listing. If no one was at home in a listed household, a replacement household was selected (see below). If a contact was made, the interviewer then ascertained whether the household contained eligible adults (see section on "selection of respondents" below). If no eligible adults were in the household, the interviewer selected a replacement household.

Selection of replacement households. Initially, it was hoped that over-sampling by five blocks in the original sampling frame and over-sampling five households on a block would provide sufficient replacements for ineligible households, refusals, and consistent not-at-homes. To keep the need for replacements low, the original plan was to have interviewers make up to three call-backs at a household in an attempt to find an eligible respondent at each of the first 10 households selected on a block. Unfortunately, the constraints of time and money prevented use of this procedure after the first four days of interviewing. "No answer" households persisted in remaining that way regardless of the number of call-backs. In addition, interviewers could not go into the field after dark and, therefore, could not make contact with households whose family

members were home only during evening hours.

Thus, the constraints of time and money prevented the use of three call-backs as originally planned. Instead, call-backs were made only when a cooperative and eligible respondent was contacted and an appointment was made for a later, more convenient time. All other "no answer," refusal, and no eligible respondent households were replaced in the field (without call-back attempts) by the following procedures (taken in order).

1. Replacement households were first selected from the five extra households listed for each block.

2. If the households provided by alternative one were insufficient, households were contacted in order in the skip interval which originally had separated sample segments on a block.

3. The five extra blocks selected into the original sample to supply replacements were used up almost immediately to replace burned-out blocks, or blocks lost to urban renewal or construction.

4. The inability of alternatives one-three to supply necessary replacements necessitated the selection of the second sampling frame described earlier. This second frame was also used to replace "middle-class" areas selected into the original sample. The second sampling frame, then, was used to replace not only households but entire blocks as well.

Selection of respondents. The tertiary sampling unit in this study was respondents sampled within households. Upon making a contact at a household, the interviewer's first job was to determine if the household contained an eligible adult. Ineligible respondents were: (a) those who were not black; (b) those who were under 21 years of age or over 60 years of age; (c) those who were unable to communicate for reasons of severe language difficulty. If only one eligible adult was home, that

adult was interviewed. If more than one was home, the interviewer listed all eligible adults at home and selected a respondent with the following procedures.

1. If one male was home, he was interviewed.
2. If two eligible males were at home, the younger was interviewed.
3. If three eligible males were home, the middle one in age was interviewed.
4. If no male adults were at home . . .
   (a) and only one female adult, she was interviewed;
   (b) two female adults, the younger was interviewed;
   (c) three female adults, the middle one in age was interviewed.

This selection procedure obviously favors males to purposely compensate for the higher incidence of at-home females.

In order to gain the cooperation of eligible respondents, interviewers paid each respondent $2 for a completed interview. In addition, interviewers were well-trained in procedures for introducing themselves, the survey, and the respondent selection procedures in order to maximize respondent trust and obtain the most possible interviews.

From all the procedures outlined above, a total of 366 interviews were completed on 34 blocks or an average of 10.8 interviews per block. On a given block, the minimum number of interviews obtained was nine, the maximum was 15. Table 23 lists the field results in terms of total number of households contacted and reasons for non-responses.

On the average, interviewers contacted two households for every interview obtained or averaged 20.8 contacts a block for the 10.8 interviews obtained. An analysis of completed interviews showed that 42.8% or 170 of the 366 completed interviews were obtained in the originally

Table 23. Total number of households contacted, completed interviews, and reasons for non-responses.

	n	%	
Total households-contacted on the 34 sampled blocks	706	100%	
No answer or vacant households	258	36%	
No eligible respondent at home	42	6%	48%
Refusal	40	6%	
Completed interviews	366	52%	

sampled households on each block. The originally sampled households include the 10 households on each block which were drawn into the sample before any additions for replacement households.

An additional check on the quality of the sample was made by comparing the demographic characteristics of the sample as determined by data collected in the field to data from the 1960 census. Tables 24 and 25 make these comparisons for sample households and sample respondents. Both tables support the quality of the sample as a low-income sample of blacks in Cleveland. The sample clearly differs from the total population and the non-white population of Cleveland in ways which prior research validates as being expected in a poverty sample (Besner 1965, Epstein 1965, Herzog 1963, Keller 1963, Lewis 1966).

In the comparison of households in Table 24, the sample shows more one-parent only families, more female head only families, generally larger family size, more one adult households, and more families with no wage earners than either the total Cleveland population or the Cleveland non-white population. On the income comparison, the sample shows much lower family incomes than the general Cleveland population and slightly

Table 24. Comparison of the demographic characteristics of the sample households to 1960 Census data.

Variable	Sample[a]	Census	
		Non-white population	Total population
Head of household designation			
Two-parent family	58.7%	76.8%	87.8%
Male head only	14.2%	3.7%	2.9%
Female head only	27.0%	19.5%	9.3%
Family size[b]			
1 member	13.4%	50.9%	54.9%
2-3 members	34.4%	28.6%	33.5%
4-5 members	23.0%	---	---
6 or more members	29.3%	20.6%	11.6%
Number of adults in family			
1 adult	26.5%	9.9%	3.2%
2	53.3%	65.0%	74.6%
3	13.9%	16.3%	16.7%
4 or more adults	6.3%	8.8%	5.5%
Number of wage earners in family			
None	23.5%	11.5%	6.4%
1	44.8%	42.9%	48.5%
2	23.5%	35.6%	35.4%
3 or more	8.2%	10.1%	9.7%
Yearly income of family[c]			
Up to $4999	38.8%	39.1%	17.1%
$5000 - $6999	33.1%	38.0%	33.4%
$7000 - $9999	16.4%	15.4%	27.1%
$10,000 or more	11.6%	7.4%	22.4%

[a]Sample n's are 366 for all comparisons except income where the n is 335, the number of respondents who reported income for their households. Census n's are 58,259 non-white households and 462,807 total households for all comparisons. (U.S Bureau of Census 1961). Data is for the SMSA (Standard Metropolitan Statistical Area).

[b]For the comparison of family size, the census definition of "family" prevents an entirely parallel comparison. Census data was available only on households of two or more related members--the census definition of "family." Sample data was based on the reports from respondents of the "number of people who lived in your house or apartment."

[c]Income for the sample was calculated by multiplying the reported weekly income from all sources by 50. Income reported was for 1969. Census data is for the year 1959.

Table 25. Comparison of the demographic characteristics of the sample respondents to 1960 Census data.

Variable	Sample[a]	Census	
		Non-white population	Total population
Age[b]			
21-30 years	30.3%	27.0%	26.2%
31-40 years	26.5%	32.9%	27.7%
41-50 years	23.5%	23.9%	25.8%
51-60 years	19.4%	16.1%	20.2%
Sex			
Male	39.2%	47.4%	48.5%
Female	60.7%	52.6%	51.5%
Education (no. years completed)			
0- 6 years	9.6%	20.1%	9.1%
7- 9 years	23.0%	29.8%	25.9%
10-11 years	27.9%	20.0%	17.5%
12 years	32.0%	20.9%	29.3%
13 or more years	7.7%	9.3%	18.1%
Working status of respondent			
Employed	49.9%	59.4%	63.2%
Unemployed	50.1%	40.6%	38.8%
Occupational prestige[c] (of those reporting employment)			
00 - 02 (low)	36.7%	28.4%	14.4%
03 - 05	58.4%	64.4%	73.5%
06 - 12 (high)	4.9%	7.2%	12.1%

[a]Sample n's are 366 for all comparisons except occupational prestige where the n is 182, the number of respondents who worked. Census n's vary. For the age and sex comparisons, the n's are 128,161 non-white adults and 444,300 total adults in the City of Cleveland. For the education comparison, the n's are 123,878 and 883, 937 respectively including adults (ages 25-64) in the Cleveland SMSA (Standard

Table 25 (footnotes cont'd.)

Metropolitan Statistical Area). For the working status of respondent comparison, census n's are 132,652 and 910,200 including adults (ages 20-59) in the Cleveland SMSA. For the occupational prestige comparison, census n's are 77,699 and 315,458 including all employed persons the the City of Cleveland. (U.S. Bureau of Census 1961).

[b]The age baselines vary for these comparisons. The age range for sample respondents is always 21-60. The age range for the census respondents is 20-59 for the age, sex, and working status of respondent comparisons. For the education comparison, the census age range is 25-64. For the occupational prestige comparison, the census data includes all employed persons.

[c]The occupational prestige scale used is one developed by Verling Troldahl (Troldahl 1965). Jobs rated 00-04 are generally blue-collar or service jobs; those rated 05-12 are white collar and professional jobs. To make this comparison, the scale was applied to the gross job categorizations used by the census.

higher income could well be the fact that sample family income was collected for a week and in order to make a comparison with census data was multiplied by 50. This procedure would overestimate sample yearly income because it does not account for laborers who do not work 50 weeks.

In the comparison of respondents in Table 25, the sample shows an age distribution close to that of the non-white Cleveland population and slightly younger than the total Cleveland population. The sample has proportionately more females than either the non-white or general Cleveland populations, a difference which is expected because of the difficulty of finding male respondents in a low-income community. The sample shows fewer respondents with one or more years of college education and a lower level of education in general than the total Cleveland population. The sample exhibits higher education than the Cleveland non-white population. This difference may be accounted for by the fact that sample respondents were younger (ages 21-60) than census respondents

(ages 25-64) so a greater incidence of at least high school educated respondents is expected. On the two variables which tap employment, the sample is clearly low-income. Fewer respondents are employed than in either the non-white or total Cleveland populations and occupational prestige is considerably lower.

APPENDIX B

INTRODUCTION TO MEASUREMENT PROCEDURES USED

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The design for this study calls for the creation of three predictor variables (television dependency, gregariousness, and interpersonal network diversity) and a set of criterion variables (the various components of information control). In addition, a fourth predictor variable was created in order to compare the role of television versus newspapers in information control.

The very hypotheses stated for this study in Chapter I present the researcher with several difficult measurement problems. The first is the need to measure deeply enough on all variables to get variance from a relatively homogeneous sample. Despite the fact that many poverty researchers have issued pleas for the creation of typologies among the poor and for the treatment of the poor as non-homogeneous, the literature includes few studies which do so. The typical study on the poor is most often a general population--poor comparison in which the need for creating variance becomes less crucial. In these studies, a more shallow measurement serves the purpose. The present study, however, demands deep measurement--measurement which goes deeply enough into a class of behaviors so that differentiations may be made between various groups of the low-income sample.

A second measurement problem in the present study is that the typologies of the sample being developed are not the usual gross socio-economic status or racial breakdowns. Typical poverty studies compare

white with blacks or higher income respondents with lower-income respondents. The variables of interest here, however, are not gross demographic variables but behavioral variables--use of television, integration into interpersonal networks, use of information for control. In order to obtain relatively stable and generalizable measures of these behaviors, more elaborate measurement is needed than is normally the case in poverty research.

Unfortunately, prior research offers very little direct help in tackling the crucial measurement problems of the present study. In a sense, then, the measurement operations used in this study are exploratory. In general, an attempt was made to include as many measures of a given variable as was feasible in order to both increase variance and to obtain more reliable, sensitive measures.

In addition, the conduct of this study can be divided into two phases in terms of the application of the rule of a priori decision making. The conceptual definition of variables, statement of hypotheses, and hypothesis-testing design were formulated completely a priori. A general plan for measurement was also stated a priori. However, actual measurement procedure decisions were made on an as needed basis. In short, each step in the measurement operations was followed by thorough analysis of the results and evaluation of whether additional operations would yield yet better measurements for the purposes of the study.

In general, the following measurement procedures were used on all variables.

1. Elimination of non-responses. A total of 175 different measures from the original questionnaire were used to develop the 43

final variables used in this study. After data was transferred to machine readable form, non-responses on all measures were tallied. If the percentage of non-responses on a given measure was at or below two per cent (n = 7), respondents with non-responses were recoded either to the mean of that measure or some logical value. Logical values were obtained by compairing respondent answers on related questions. As an example, if a respondent had a "no answer" for "number of TV sets owned" but consistently indicated TV viewing, he was coded as owning one TV set--the modal respondent for TV set owners. Using this non-response elimination procedure, all but five of the final variables had complete data.

2. Quantitative content analyses. Of the 175 different measures used from the original questionnaire, roughly 50% were based on content analyses of open-ended items.[1] Content analysis schemes will be described in detail for each variable in Appendices E to G. The first cut content analyses for each measure were detailed qualitative analyses. As a second measurement stage, all qualitative content analytic codes were recoded into quantitative terms. This procedure was done by computer. A check on the computations was completed on another computer (an interactive terminal computer hook-up) on a 10% sample of the respondents. The sample was selected randomly.

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[1]The content analysis schemes used here were developed by the present author although general guidelines were provided by some of the researchers listed in Chapter I. General references for content analytic procedures were Backstrom and Hursh 1963, Holsti 1968.

3. Development of variable classes. The items used from the original questionnaire were then divided into five variable classes. Four of these contained measures tapping the predictor variables explicated in Chapters I-III: (a) television dependency; (b) gregariousness; (c) interpersonal network diversity; and (d) newspaper dependency. The fifth contained measures tapping various components of the criterion variable: information control. The actual decision on which items belonged in what variable classes was made a priori in the questionnaire development stage.

4. Reduction of items by indexing. Within each variable class, the total number of items was reduced by indexing. Indexing at this stage was based on a priori decisions. Thus, for example, 10 different items in the television dependency class were built into the original questionnaire to measure respondent use of television for his definition of reality. These 10 items were summed to form a TV reality index. All a priori defined indexes were created by summing individual scores on items. Prior to the summation process, a Pearson product-moment correlation matrix was computed between individual items in an index. As an additional check on homogeneity or internal consistency, an odd-even split-half reliability measure was computed for each index.[1] After this

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[1]The measure of homogeneity used was a Pearson product-moment correlation between the sums of half the items in an index. Items were divided using odd-even splits. The correlation was corrected for length using the Spearman-Brown formula. General references used on index homogeneity and measurement were: McNemar 1962, Robinson, Athanasion, and Head 1969, and Sellitz, Jahoda, Deustch, and Cook 1959.

reduction procedure, the 43 variables were created from the original 175 items used. The number of variables in each variable class was: (a) television dependency, 10 variables; (b) gregariousness, 6 variables; (c) interpersonal network diversity, 15 variables; (d) information control, 39 variables; and (e) print diversity, 7 variables.

At this stage, measurement procedures for predictor and criterion variables went in two different directions. For the criterion variables, the four steps described above essentially completed the formation of the variables. A full report on specific measurement procedures for each criterion variable is included in Appendix F.

Factor Analyses of Predictor Variables

For the predictor variables, factor analysis was used as the method of combining the n variables in each predictor variable class into one general index. Factor analysis was chosen as a method because it handles most of the measurement problems in this study.[1]

Ideally, an index within a predictor variable class will have these qualities: (a) it will be derived from a relatively homogeneous set of variables which conceptually tap the predictor class; (b) it will be based on a set of variables with near equal code ranges and variances so no one variable gets undue weight in the index simply because of measurement artifacts; and (c) it will combine the variables in such a way that greater weight is given to those variables which conceptually

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[1]References used on the theoretical role of factor analysis in measurement included: Harman 1960, Kerlinger 1966, Scott 1968. References used for the practical aspects of factor analysis included: Dixon 1965 and 1969, Harman 1960, Nie, Bent, and Hull 1970, Williams, Clements, and Katzer 1967.

are more central to the predictor class.

Given the exploratory nature of the measurement in this study, none of these conditions could be met fully by a priori planning since little research was available to guide the planning. Factor analysis provided the best available means for trying to create indexes with the qualities described above.

First, factor analysis is a method of gleaning from a set of variables the hypothetical factors underlying them. As a method, therefore, factor analysis provided a means for choosing from the n variables in each predictor class those variables which in some combination seemed to best tap the underlying conceptual variable. This meets the first condition of indexing listed above.

In addition, factor analysis meets the second and third conditions listed above because of the way in which factor scores are created on the chosen factor. The factor score for each respondent on the chosen factor is created by multiplying the standardized raw scores on each variable by a factor score coefficient for that variable and summing the results across variables. The factor score coefficient is the beta-weight for that variable's regression on the hypothetical factor. The use of standardized raw scores eliminates the problems of unequal code ranges and unequal variances. The use of factor score coefficients gives more importance in the final index to those variables which are more central to the hypothetical factor.

Factor analysis (like other correlational methods) assumes that the component variables are linearly related, normally distributed and additive. The second two conditions were generally met for all factor

analyses used in this study. The first--the requirement of linear relationships between components--is met in the sense that positing a linear relationship between component variables is the most parsimonious procedure. To the extent that the individual correlations between component variables are significant, this assumption is further supported. A complete test of this assumption would require, however, a comparison of the linear correlations (Pearson product-moment) with the analagous curvilinear correlations (Eta). This procedure was not undertaken at this time.

In summary, then, factor analysis was used as a method of obtaining within each predictor variable class one index which was conceptually the "best" measure of the predictor variable. To arrive at this goal, the following specific procedures were used.

1. Principal axis solutions. The principal axis rotations were completed in order to determine the successive proportions of variance that would be accounted for in factor solutions of varying sizes. The important consideration here is not variance accounted for but the creation of a "good" conceptual variable. However, to choose a "good" conceptual variable, it was necessary to determine at what point successive factor solutions stablilized--i.e., that point at which further factor solutions would not change the nature of the factor solution markedly. On the basis of the principal axis rotations, it was decided to run two rotated factor solutions--a two-factor solution and three-factor solution--in each predictor variable class.

2. Quartermax rotated solutions. The method of orthogonal rotation used was quartermax--the method which emphasizes simple

structure for rows or simplifies the loadings of variables on factors. This is the rotation method recommended for measurement procedures.

3. Choosing a factor. The choice of a final factor is primarily a judgmental process. A number of quantitative guides were used: (a) proportion of variance accounted for in all the component variables by a factor solution and a given factor; (b) proportion of variance accounted for in a given component variable by a factor solution (a variable's communality); and (c) factor purity of the variable on a given factor. The measurement of factor purity used was a given variable's communality on a factor solution divided into the square of that variable's factor loading on a given factor. This measure can be interpreted as the proportion of the total variance accounted for in a variable that is accounted for by a given factor.

In choosing a final factor for each predictor variable class, emphasis was placed on finding a factor which conceptually fit the predictor variable explicated in Chapter I. To aid in this decision, one of the component variables in each factor analysis was selected a priori as the "crucial" or "central" variable tapping the general predictor variable. In all cases, the chosen factor solution was one on which this "central" measure had its highest factor loading.

Further refinements were made on the initial choice of a factor in terms of deciding which factor solution yielded a chosen factor with the highest variable factor purities. In addition, the proportion of total variance in all the variables accounted for by the chosen factor was taken into consideration. Finally, factor scores for the chosen factor were computed for a sample of ten respondents to make a final

check to see if the final factor scores seemed to be describing the respondents adequately.

The application of these procedures to each class of predictor variables is specified in detail in Appendices C, D, E, and G.

APPENDIX C

THE MEASUREMENT OF DEPENDENCY ON TELEVISION

APPENDIX C

THE MEASUREMENT OF DEPENDENCY ON TELEVISION

The first predictor variable for this study is respondent dependency on television as a medium. Conceptually, the best single indicator of this dependency is seen as amount of television viewing. However, television dependency is seen as being broader in scope than simple amount of viewing. It includes such other components as a belief in what television portrays, having a large number of favorite television programs, and making television a frequent topic of conversation with friends. It is hoped that by combining a series of measures tapping dependency on television a more stable and generalizable variable will result. It is also hoped that such a measure will be less constrained by the fluctuations of amount of viewing that occur from day to day and week to week in an individual's life.[1] Unfortunately, prior research offered little help in deciding what the composition of this abstract measure--dependency on television--should look like. The most common practice in media research has been to deal with various measures of the use of television individually or as predictors of each other.

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[1]Several researchers have written specifically about the problems of measuring amount of TV viewing (e.g., Dervin 1968, Greenberg, Dervin, and Dominick 1968, Schramm, Lyle, and Parker 1961). A specific problem is that major news breaks and their resulting special TV coverage change the composition of the television audience. This was, indeed, one problem in the study reported here--a problem which is handled later on in this Appendix.

The Measures of Dependency on Television

In all, ten different measures of dependency on television were included in this study. The general procedure for creating one final index was to factor analyze these ten measures and then use as the predictor variable factor scores on the one "best" factor--i.e., the factor that seemed to represent "best" the conceptual variable.[1] A full description of the measurement procedures for each of the ten individual measures follows. Table 26 lists all ten measures and their means, standard deviations, code ranges, and number of non-responses. In addition, Table 6 reports the interjudge coding reliability percentages for each measure.

Number of favorite TV shows. This measure is a simple count of the number of favorite TV shows named by each respondent. In all, 208 different TV shows were named by the 366 respondents. The number named by a given respondent ranged from 0 to 12 with 96.7% of the respondents having no more than six favorite shows.

Number of categories in which favorite TV shows fell. This measure is based on the one above. However, it taps a different dimension of television dependency by changing the focus from quantity to quality of shows named. To create this measure, the first six favorite TV shows named by each respondent were content analyzed into categories.

The television show categories used were essentially the same categories or "program types" used by A.C. Nielsen in analyzing the

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[1]See Appendix B for a full description of the measurement procedures which were applied to all classes of variables.

Table 26. Television dependency index--list of variables, means, standard deviations, code ranges, non-responses, and interjudge coding reliabilities.

Variable	Means	s.d.	Code range	No. non-responses	r_{xx}[b]
No. favorite TV shows[c]	4.04	1.89	0-12	0	97%
No. categories in which favorite TV shows fell	2.87	1.29	0-6	0	99%
Diversity of favorite TV shows	57.97	31.87	000-100	0	99%
No. TV sets owned[c]	1.52	.89	0-6	1[a]	98%
Frequency talks to others about TV shows[c]	2.20	1.34	0-4	1[a]	100%
Think TV ads tell truth[c]	1.94	.69	0-4	3[a]	100%
See things advertised on TV want to buy[c]	1.89	.75	0-4	1[a]	98%
TV reality	16.14	3.02	10-20	0	99%
Talk about specific types of TV shows	3.66	.58	3-5	0	99%
No. hours TV viewing yesterday					
Raw scores	2.89	3.15	0-17.25	0	93%[d]
Standard scores	50.00	9.89	38.78-85.70	0	93%

[a]All respondents with non-responses on these items were recoded to the mean or some logically derived value. See Appendix B for discussion of recoding.

[b]The measure of interjudge coding reliability (r_{xx}) used is Stempel's percentage agreement index (Stempel 1955). See Chapter II for full details.

[c]These five measured were obtained from single closed-ended items in the original questionnaire. The remaining five items are, in themselves, indexes derived from two or more items in the questionnaire. See text of this Appendix for details.

[d]For all measures except this one--number of hours of TV viewing yesterday--the interjudge coding reliability criterion was agreement to an exact code. For this measure, the criterion was relaxed to agreement with one-half hour of viewing time because of the degree of subjective decision-making involved in computing hours of TV viewing from a daily TV log. The r_{xx} with an exact code criterion is 85% on this measure.

preferences of the television audience (A.C. Nielsen 1969). Brief definitions of the categories with one or two sample shows assigned to each include:

1. Science fiction shows. These shows include all science fiction drama. Examples are: "Invaders," "Star Trek."

2. Sports. These shows include all sports commentary and events. Examples are: "Wide World of Sports," "Roller Derby."

3. Mystery and suspense drama. These include all daytime and evening mystery and suspense shows. Examples: "Adam 12," "Mod Squad."

4. Feature films and movies. These include all specific references to feature films and all general references to "movies."

5. Western drama. These include both daytime and evening westerns. Examples: "Big Valley," "Virginians."

6. Musical variety. These include all totally musical shows plus variety shows with a major focus on music. Examples are: "Hee Haw," "Johnny Cash," and "Kraft Music Hall."

7. Adventure shows. These include primarily adventure dramas, such as "Daniel Boone," "Lassie," and "Sea Hunt."

8. Audience participation. These include panel and quiz shows. Examples are: "Password," "To Tell the Truth," and "Dating Game."

9. Situational comedy. These include comedy shows with a continuing story line. Examples are: "Andy Griffith," "Bewitched," and "Beverly Hillbillies."

10. Informational shows. These include devotional, discussion, forum, how-to-do-it, interview, news, and documentary shows. Examples are: "Black Journal," "Meet the Press," "David Susskind."

11. Daytime serials and soaps. These include both day and nighttime soap operas, such as "Payton Place," "Another World," "Secret Storm."

12. Talk and variety shows. These include both day and nighttime variety shows and the talk shows. Examples are: "Ed Sullivan," "David Frost," "Merv Griffin."

A respondent received a score for each of the 12 categories--the score being the number of his favorite TV shows which fell in that category. Results of this content analysis--the first step in creating this measure--are listed in Table 27.

Table 27. Results of content analysis dividing favorite TV shows into categories of types of shows.

Category	Mean	s.d.	Code range	Percentage of respondents with one or more shows in this category
Science fiction shows	.10	.40	0-3	8.5%
Sports	.06	.28	0-2	5.2%
Mystery & suspense drama	1.01	1.08	0-4	56.8%
Feature films & movies	.19	.43	0-2	17.8%
Western drama	.45	.68	0-3	35.8%
Musical variety	.13	.38	0-3	12.3%
Adventure shows	.04	.18	0-1	3.6%
Audience participation	.30	.81	0-6	15.8%
Situational comedy	.46	.72	0-3	35.8%
Informational shows	.35	.59	0-3	30.1%
Daytime serials & soaps	1.18	1.63	0-6	46.2%
Talk and variety shows	.25	.56	0-3	19.7%

After this content analysis, the respondent's final score on this measure was computed by simply counting the number of categories in which a given respondent named one or more favorite TV shows. For example, let's take a respondent who named these four shows: "Love of Life," "Secret Storm," "Beverly Hillbillies," and "Star Trek." This respondent was coded 2 in the soap opera category, 1 in the situation comedy category, and 1 in science fiction. The number of categories in

which his favorite TV shows fell is 3.

Diversity of favorite television shows. In order to add an additional dimension of television use and account for the differing number of favorite shows named by respondents, this measure was created by developing a ratio: 100 x (number of categories in which favorite TV shows fell/number of favorite TV shows). This measure had a range from 0 to 100. Respondents who named no or only one television show were automatically coded as "0" on this measure. For a rationale for using this type of diversity measure, see Appendix E.

Number of TV sets owned. This figure was secured from respondents with an item asking "how many working TV sets" they had at home.

Frequency R talks to others about TV shows. A general index of the frequency of respondent talking about TV shows, this measure came from a one-item question.

Think TV ads tell the truth. Tapping a dimension of belief in TV, this single item measure asked respondents how often they felt the ads on TV tell the truth.

See things advertised on TV want to buy. For this single item measure, respondents were asked how often they saw things on TV that they wanted to buy.

TV reality. This measure is actually a composite index of 10 items whose purpose was to tap the extent to which the respondent depends on TV for his reality. The individual items were among those originally developed by Greenberg and Dominick (1970). Table 28 lists the 10 items used with their means, standard deviations, and code ranges. Table 29 (on page 164) reports the Pearson product-moment

Table 28. Items in the TV reality measure--means, standard deviations, code ranges, and non-responses.

Item	Mean	s.d.	Code range	Non-responses
On yes-no answer scale				
People watch TV because				
(1). . . it's exciting	1.57	.49	1-2 (2=yes)	0
(2). . . they can learn from the mistakes of others	1.69	.46	1-2	0
(3). . . it shows how other people solve the problems they have	1.61	.49	1-2	1[a]
(4). . . it shows what life is really like	1.52	.50	1-2	0
(5). . . it keeps their minds off other things	1.65	.48	1-2	0
(6). . . they can learn a lot	1.73	.44	1-2	0
On true-false scale				
(7) Your favorite TV show tells about life the way it really is.	1.50	.50	1-2 (2=true)	3[a]
(8) The people in your favorite TV show are like people you meet in real life.	1.63	.48	1-2	0
(9) The same things that happen on TV often happen to you in real life.	1.60	.49	1-2	0
(10) Families on your favorite TV shows are pretty much like families you see in real life.	1.63	.48	1-2	0

[a]Respondents with no answers on these items were re-coded to the mean of the item. Before recoding, a check was made to make sure that no one respondent had a non-response on more than one item.

Table 29. Pearson product-moment correlations between items in the TV reality measure.

Item number	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)[b]	---								
(2)	.32	---							
(3)	.21	.48	---						
(4)	.33	.36	.44	---					
(5)	.28	.23	.24	.25	---				
(6)	.39	.51	.38	.44	.30	---			
(7)	.24	.27	.29	.50	.06[a]	.35	---		
(8)	.22	.27	.27	.39	.15	.23	.44	---	
(9)	.22	.34	.36	.37	.21	.40	.32	.42	---
(10)	.13	.25	.40	.42	.21	.32	.40	.44	.44

[a]All r's in this table except this one are significant at $p<.001$. This r is n.s.

[b]Item number here refers back to Table 8 where the original items are each listed with an identification number.

correlations between all the items. To create the TV reality measure, respondent scores on all 10 measures were summed. An odd-even split-half reliability check produced a resulting corrected r_{nn} of .73 for the 10-item measure.

Talk about specific types of TV shows. One item in the original questionnaire asked respondents what TV shows he talked about with other people. This item was content analyzed in terms of whether the respondent said he talked about soap operas, news programs, or programs with black actors. This measure simply sums the number of these three program types

which the respondent said he talked about.

Number of hours TV viewing yesterday. Conceptually, the most important of the measures of television dependency, this measure was derived by asking respondents what programs they watched on television yesterday. All interviewing was done on Tuesday through Saturday so "yesterday" for all respondents is a weekday, Monday through Friday. All programs which the respondent watched were circled by the interviewer on a daily TV schedule. Coders then counted the total number of hours which the respondent reported viewing. This type of aided-recall measurement of amount of viewing has been reported as a more sensititve measure than simple time estimates from respondents (e.g., Greenberg, Dervin, and Dominick 1968, Schramm, Lyle, and Parker 1968).

Originally, it was planned that this variable would be tapped in raw score form. However, the two week interviewing period turned out to coincide with an Appollo moon launch. Interviewing was postponed one day to avoid the massive TV coverage of launch day. However, the costs of paying hired interviewers prevented a further delay. As a result, during the first four days in the field, a good amount of TV time was pre-empted for moon coverage while during the last days in the field, TV coverage had returned somewhat to normal. Because of this situational effect, it was expected that the measurement of television viewing would be biased. An analysis of variance of the means of television viewing by day in the field supports this expectation (see Table 30).

Table 30. Analysis of variance testing the difference between amount of television viewing reported by day of interviewing.

Means[a]

Day	Mean	n
1	2.00	21
2	2.78	16
3	2.74	32
4	2.42	36
5	2.63	49
6	3.08	62
7	3.12	54
8	3.29	53
9	3.12	43

Analysis of variance table

Sources of variance	ss	df	ms	F	p
Between categories	45.21	8	5.65	0.56	n.s.
Linear	32.34	1	32.34	3.21	p<.10 (n.s.)
Quadratic	0.57	1	0.57	0.06	n.s.
Other	12.30	6	2.05	0.20	n.s.
Within categories	3591.59	357	10.06	----	----
Total	3636.80	365	----	----	----

[a]Total n for this analysis is 366 with respondents distributed to cells as indicated in the list of means.

As expected, the mean amount of television viewing increased over the field period. The linear component of the between categories variance best measures this effect and comes close to significance at $p<.10$. While this suggests the impact of the field situation was not terribly large, the effect was deemed great enough to standardize amount of television viewing scores within days of interviewing. The actual score used was a standard score with a mean of 50 and standard deviation of 10 (McNemar 1962).

Factor Analysis of Television Dependency Measures

The 10 measures described above were then factor analyzed. See Appendix C for a full rationale for using factor analysis and full description of the specific procedures used. Table 31 reports the results of the two rotated factor solutions. Table 32 (on page 169) displays the correlation matrix upon which the factor solutions were based. Table 33 (on page 170) reports the variable communalities, factor purities, and factor score coefficients for the overall index of television dependency.

The second factor of the three factor solution (Table 31) was chosen as the factor which best tapped the conceptual variable--television dependency. In the three-factor solution, the 10 component variables have subdivided into three groups. The three variables with their highest loadings on Factor 1 are: number TV show categories, number TV sets, and TV category diversity. The five variables with their highest loadings on Factor 2 are: number of favorite TV shows; frequency talk about TV; TV reality; talk about specific shows; and number hours of TV viewing. The two variables with their highest loadings on Factor 3 are: think ads tell truth; and see things advertised on TV want to buy.

Conceptually, Factor 2 seems the best representation of general dependency on television. At its core it has the crucial variable--amount of television viewing--along with respondent use of television for reality definition. In addition, it has two measures of the use of television as a conversational topic with friends and includes number of favorite TV shows.

Table 31. Factor analyses of the 10 measures of television dependency--two and three-factor rotated solutions.

Variable	Two-factor solution factor loadings F1	F2	Three-factor solution factor loadings F1	F2[a]	F3
(1) No. favorite TV shows	.41	-.51	.38	.57	-.03
(2) No. show categories	.95	-.02	.95	.06	.02
(3) TV category diversity	.85	.22	.87	-.20	.03
(4) No. TV sets	.29	-.09	.29	.12	-.02
(5) Frequency talk about TV	.14	-.66	.11	.66	-.13
(6) Think ads tell truth	.00	-.19	.02	-.05	.76
(7) See things want to buy	-.04	-.39	-.02	.15	.76
(8) TV reality	-.17	-.59	-.20	.52	.29
(9) Talk about specific shows	.08	-.56	-.04	.61	-.04
(10) No. hours TV viewing	-.04	-.52	-.08	.57	-.08
Proportion of variance accounted for by factor	19.4%	18.8%	19.4%	18.1%	12.7%
Proportion of variance accounted for by entire factor solution		38.2%		50.2%	

[a]The factor chosen for which factor scores were created to tap dependency on television.

Table 32. Pearson product-moment correlations between the 10 measures of television dependency.

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1)[a]	---									
(2)	.37[b]	---								
(3)	.01	.77	---							
(4)	.10	.14	.12	---						
(5)	.27	.10	-.02	.04	---					
(6)	.02	.03	-.00	-.02	.06	---				
(7)	.06	-.00	-.03	.02	.15	.22	---			
(8)	.10	-.11	-.11	.02	.17	.06	.20	---		
(9)	.20	.08	-.06	.02	.26	-.01	.06	.22	---	
(10)	.16	-.02	-.09	.03	.24	-.01	.02	.20	.10	---

[a]The numbers identifying variables here refer back to Table 31 where each variable is listed with an identification number.

[b]Correlations of ±.10 or greater are significant with n = 366 at $p<.05$.

Factor 1 seems to be a more specific measure of the diversity of television use. Factor 3 also seems to be tapping a specific dimension of television dependency related to TV advertising.

As a final measurement operation, factor scores were created for each respondent on the chosen factor. The scores were created by multiplying a respondent's raw scores on each of the component variables by the factor score coefficient for that variable (listed in Table 33) and summing these products across variables. The resulting factor scores had a range from -2.36 to +3.44 with a mean of 0 and a standard deviation of 1. For the analysis of variance assignment of respondents to cells,

Table 33. Variable communalities, factor purities, and factor score coefficients for the overall index of television dependency.

Variable	Communality on the chosen 3-factor solution[a]	Factor purity on chosen factor[b]	Factor score coefficient[c]
No. favorite TV shows	47%	.69	.32
No. TV show categories	90%	.00	.01
TV category diversity	80%	.05	-.14
No. TV sets	10%	.14	.06
Frequency talk about TV	46%	.94	.36
Think ads tell truth	58%	.01	-.10
See things want to buy	60%	.04	.02
TV reality	39%	.68	.27
Talk about specific shows	37%	.99	.35
No. hours TV viewing	34%	.96	.33

[a]The communality of a given variable (h^2) is interpreted as the percent of variance in that variable explained by the chosen factor solution, including all its factors.

[b]The measure of factor purity used here is $(FL)^2/h^2$ or the square of the factor loading of a variable on the chosen factor divided by the proportion of variance accounted for in the variable by the total chosen factor solution. This may be interpreted as the proportion of the variance accounted for in a variable which is accounted for by the chosen factor.

[c]In creating one factor score measuring television dependency, a respondent's final score is the sum of his raw scores on the 10 measures, each multiplied by the appropriate factor score coefficient. The factor score coefficient may be interpreted as a beta-weight for an individual variable's regression on the hypothetically constructed factor.

a median split was made on the empirical distribution. The median factor score value was -.02. The 184 respondents with scores of -.02 or higher were assigned to high television dependency cells; the 182 respondents with scores of -.03 or lower were assigned to low television dependency cells. In order to equalize the number of high versus low respondents, one respondent with a score of -.02 was chosen randomly and redefined from high to low.

APPENDIX D

THE MEASUREMENT OF GREGARIOUSNESS

APPENDIX D

THE MEASUREMENT OF GREGARIOUSNESS

The second predictor variable for this study is gregariousness. As conceptually defined in Chapter I, gregariousness is the amount of contact the respondent has with other people.

An important distinction made in Chapter I needs to be emphasized here. Chapter I differentiates between pure gregariousness and diversity of interpersonal contact. The former is seen generally as amount of contact; the latter as quality of contact or the amount of difference in the characteristics of contact. Developing independent measures of these two constructs was one of the major tasks of this study. Measures of interpersonal network diversity are described fully in Appendix F. It is important to emphasize here, however, that some measures (such as number of organizations the respondent belongs to) that are sometimes termed "gregariousness" have not been in this study. Such measures of structured, formal interpersonal contact are seen conceptually as tapping diversity of contact.

The Measures of Gregariousness

In all, six different measures of gregariousness were included in this study. A full description of the measurement procedures for each of the six individual measures follows. Table 34 lists all six measures and their means, standard deviations, code ranges, and number of non-

Table 34. Gregariousness index--list of variables, means, standard deviations, code ranges, non-responses, and interjudge coding reliabilities.

Variable	Means	s.d.	Code range	No. non-responses	r_{xx}[a]
Total no. interpersonal contacts yesterday and in three topic areas[b]	4.57	3.22	0-21	0	98%
No. of people talked to on block in last week	8.29	12.94	0-98	0	98%
No. close friends talked to last week	6.27	13.25	0-98	0	100%
No. relatives talked to almost every week	3.16	4.76	0-62	0	100%
No. co-workers talked to during usual working day	8.83	17.72	0-98	0	95%
Frequency friends, neighbors, relatives visit home	3.72	1.67	0-6	0	98%

[a]The measure of interjudge coding reliability (r_{xx}) used is Stempel's percentage agreement index (Stempel 1955). See Chapter II for details on methods of calculating coder agreement. The criterion for all these measures was agreement to an exact code.

[b]This measure was obtained by summing across four items in the original questionnaire. The remaining five items were all derived from single closed-ended items in the original questionnaire.

responses.[1] In addition, Table 34 reports the interjudge coding reliability percentages for each measure.

Total interpersonal contacts. This measure is derived from four different items in the original questionnaire. One of the original items

[1]See Appendix B for a full description of the measurement procedures which were applied to all classes of variables.

was simply a count of the number of different people the respondent spoke to "yesterday." The other three items indicated whether the respondent had regular interpersonal contact in one to three topic areas (personal problems, politics, financial matters). All respondents had complete data on all four original items. The measure was derived by summing across the four original items.

Number of people talked to on block in last week. An open-ended item, this measure is "the number of people living on this block or across the street" the respondent said he talked to in the last week.

Number of close friends talked to last week. Another single open-ended item, this measure is "the number of close friends" the respondent said he talked to in the last week.

Number of relatives talked to almost every week. Another single open-ended item, this measure is the respondent's answer to this question: "How many relatives who don't live with you do you see or talk to almost every week?"

Number of co-workers talked to during usual working day. This measure is derived from a single item in the original questionnaire which asked: "On the usual working day, about how many people do you talk to on the job more than just to say 'hello'?" Only respondents who had jobs were asked this question. Respondents who did not work were coded as a "0" on the measure.

Frequency friends, neighborhoods, relatives visit home. This measure is derived from a single closed-ended item which asked respondents how frequently "friends, neighbors, or relatives come to your home to visit?"

Factor Analysis of Gregariousness Measures

The six measures described above were then factor analyzed. See Appendix B for a full rationale for and description of the factor analytic procedures used. Table 35 reports the results of the two rotated factor solutions. Table 36 (on page 178) displays the correlation matrix upon which the factor solutions were based. Table 37 (on page 179) reports the variable communalities, factor purities, and factor score coefficients for the overall index of gregariousness.

The core variable--defined a priori--as most crucial to the gregariousness index--was "total interpersonal contacts." This measure was termed crucial because it was the most precisely gathered of the various gregariousness measures. While the other measures asked respondents to state their behavior generally, this measure asked specifically how many contacts respondents had yesterday and whether the respondent had specific contacts in various topic areas. While this one measure certainly generated sufficient variance by itself, it was felt that it was not as generalizable a measure of gregariousness as was needed. Situational problems during the actual week of interviewing may have meant that a usually high gregariousness respondent talked to no one yesterday. In order to account for these possible situational effects, it was important that more than just this "crucial" variable be incorporated into a final index of gregariousness.

The first factor derived from the two-factor solution (Table 35) was chosen as the factor which best tapped the conceptual variable--gregariousness. This factor was chosen because three of the six measures loaded highest on it and because the same factor emerged relatively

Table 35. Factor analyses of the six measures of gregariousness--two and three-factor rotated solutions.

Variable	Two-factor solution factor loadings F1[a]	F2	Three-factor solution factor loadings F1	F2	F3
(1) Total no. interpersonal contacts	.64	.14	.67	-.07	.21
(2) No. people talked to	.07	.76	-.02	-.83	.14
(3) No. close friends talked to	.39	.56	.28	-.74	-.11
(4) No. relatives talked to	.64	.07	.63	-.12	.00
(5) No. co-workers talked to	-.06	.55	.07	-.05	.96
(6) Frequency others visit home	.68	-.12	.68	.03	-.12
Proportion of variance accounted for by factor	23.9%	20.9%	23.2%	20.8%	17.0%
Proportion of variance accounted for by entire factor solution	44.8%		61.0%		

[a]The factor chosen for which factor scores were created to tap gregariousness.

unchanged in the three-factor solution. In addition, it was on this factor that the a priori defined "central" variable loaded highest.

The three variables with their highest loadings on the chosen factor were: total interpersonal contacts, number of relatives talked to; and frequency others visit home. In the two-factor solution, the

Table 36. Pearson product-moment correlations between the six measures of gregariousness.

Variable	(1)	(2)	(3)	(4)	(5)	(6)
(1)[a]	---					
(2)	.12[b]	---				
(3)	.15	.26	---			
(4)	.19	.06	.21	---		
(5)	.09	.10	.05	.06	---	
(6)	.19	.07	.12	.14	.02	---

[a]The numbers identifying variables here refer back to Table 35 where each variable is listed with an identification number.

[b]Correlations of ±.10 or greater are significant with n = 366 at $p<.05$.

remaining three variables--number people talked to; number of close friends talked to; and number of co-workers talked to--all loaded highest on the second factor. In the three-factor solution, the grouping of the variables in terms of the factors on which they loaded highest remained the same except that the variable "number of co-workers talked to" emerged with its highest loading on factor three.

As a final measurement operation, factor scores were created for each respondent on the chosen factor. The scores were created by multiplying a respondent's raw scores on each of the component variables by the factor score coefficient for that variable (listed in Table 37). The resulting factor scores had a range from -2.36 to +3.44 with a mean of 0 and a standard deviation of 1. For the analysis of variance assignment of respondents to cells, a median split was made on the empirical distribution. The median score value was -.07. The 183

Table 37. Variable communalities, factor purities, and factor score coefficients for the overall index of gregariousness.

Variable	Communality on the chosen 2-factor solution[a]	Factor purity on chosen factor[b]	Factor score coefficient[c]
Total interpersonal contacts	43%	.95	.44
No. people talked to	61%	.01	-.08
No. close friends talked to	46%	.33	.20
No. relatives talked to	41%	.99	.45
No. co-workers talked to	31%	.01	-.14
Frequency others visit home	48%	.97	.52

[a]The communality of a given variable (h^2) is interpreted as the percent of variance in that variable explained by the chosen factor solution, including all its factors.

[b]The measure of factor purity used here is $(FL)^2/h^2$ or the square of the factor loading of a variable on the chosen factor divided by the proportion of variance accounted for in the variable by the total chosen factor solution. This may be interpreted as the proportion of the variance accounted for in a variable which is accounted for by the chosen factor.

[c]In creating one factor score measuring gregariousness, a respondent's final score is the sum of his raw scores on the six component measures, each multiplied by the appropriate factor score coefficient. The factor score coefficient may be interpreted as a beta-weight for an individual variable's regression on the hypothetically constructed factor.

respondents with scores of -.08 or higher were assigned to high gregariousness cells; the 183 respondents with scores of -.09 or lower were assigned to low gregariousness cells.

APPENDIX E

THE MEASUREMENT OF INTERPERSONAL NETWORK DIVERSITY

APPENDIX E

THE MEASUREMENT OF INTERPERSONAL NETWORK DIVERSITY

The third predictor variable for this study is interpersonal network diversity. Of the three predictor variables, it is the most difficult to measure because prior research offers almost no guidelines. Conceptually, the variable is defined as the "differentness" or "variety" of contact in the respondent's life. To the extent that the respondent speaks to many different kinds of people and goes to many different kinds of places during the course of his everday life, he is a respondent with diverse interpersonal networks. It is assumed that such diverse contacts carry with this informational inputs. Indeed, this is one of the major propositions being tested in this study.

The measurement of diversity of contact in a ghetto setting presents two major problems. The first is the general ghetto measurement problem of getting variance. Prior studies with low-income samples have consistently indicated that the amount of outside contact which the average ghetto resident has is significantly lower than that of the average general population adult. Yet, this study requires that not only the quantity of contact be measured but quality as well. Thus, a large number of different measures of contact diversity (15 in all) were created in hopes of getting the variance demanded by this study.

The second major problem in measuring diversity of contact is that while conceptually it can be thought of as a separate construct

from gregarious, in the practice of measurement it is difficult to separate. The respondent who has more general contacts with others has, as a given, more opportunity for diversity of contact.

Since no prior work on this problem could be found, this first in-depth attempt to handle it is certainly not going to be complete. Generally, it was felt that a larger number of measures of diversity would help alleviate the problem by tapping various dimensions of the theoretical construct. In addition, it was felt that it was important to include in this set of diversity measures at least some which conceptually seemed relatively independent of gregariousness. Thus, for example, a measure tapping the distance a respondent travels to work (geographic diversity) is seen as less dependent on pure gregariousness than a measure tapping the proportion of a respondent's contacts who are not in the peer-kinship network.

Of the 15 measures created to tap diversity, 11 are descriptive of actual interpersonal contacts--i.e., the people the respondent had contact with on a usual day. The remaining four measures are more general measures of diversity based on the distance the respondent travels to work, cosmopoliteness, and respondent organizational memberships. It is reasoned that these latter measures of diversity tap a more formal, structured aspect of respondent daily contact and are relatively free of pure gregariousness. This latter set of measures is seen as the "central" core of the general construct--"interpersonal network diversity"--being tapped here. In analyzing the factor analyses, for example, an effort will be made to choose a factor which is built around these core variables.

One other attempt to build diversity measures that were as free as possible of gregariousness was encompassed in a basic "diversity ratio" developed for this class of variables. This ratio is essentially a "type-token" ratio and is best illustrated with an example. Take a respondent who had six contacts yesterday. To measure the diversity of these contacts, a count could be made of the number of these contacts who worked, the number who live outside the ghetto, or the number who live outside the respondents' home. These measures all seem to tap diversity but have the problem of being tied to total contacts. By creating a "type-token" ratio, this problem is alleviated. The measure becomes the proportion of all contacts who exhibit a certain "diverse" characteristic. This measure has been used frequently in creating measures of diversity of contact. In using this measure, a decision had to be made of what to do with respondents who had no potential diversity--i.e., the denominators of their ratios were either 0 or 1. In both of these cases, diversity scores of 0 were given.

Before describing each of the individual measures of diversity, a description of the basic questionnaire tool used for 11 of these measures is in order. Eleven of the 16 measures of interpersonal contact diversity were derived from a descriptive log of all contacts each respondent had yesterday. For each respondent, a maximum of six "contact sheets" were filled out--one for each of six of the contacts he had yesterday. In all, respondents had an average of 3.46 contacts yesterday with the minimum being 0, the maximum 21. Total contacts across the entire sample, then, were 1266. By limiting the descriptive data collection to only six contacts yesterday, the error introduced was not

large. Table 38 reports the number of respondents who had one through six contact sheets filled out.

Table 38. Number of interpersonal contact sheets completed for each respondent.

Number of contact sheets	Number of respondents (n = 366)	Percentage of respondents (of n = 366)
1	328	18%
2	264	16%
3	205	14%
4	116	24%
5	67	7%
6	40	11%
Total	1020	

In all, 1020 contact sheets were completed or 81% of the total 1266 contacts reported by all respondents for "yesterday." Only eight per cent of the respondents had more than six contacts.

Respondents were asked to give the following information on each of a maximum of six of their contacts: sex, topics talked about, location of interaction, relationship of contact (friend, relative, member of organization), whether the contact worked, the distance the respondent lived from the contact's home, and race of contact. Measures of the diversity of each respondent's interpersonal contacts were then computed for each of these characteristics. The basic question behind all measures was: "what proportion of the respondent's contacts reflect diversity"? To apply this basic question to some of the characteristics above as examples, the questions would become: "what proportion of the

respondent's interactions took place outside his own home"?; "what proportion of the respondent's contacts are holding down jobs"?; or "what proportion of the respondent's contacts are not part of the peer-kinship net"?

Specific descriptions of each measure of interpersonal contact diversity are described fully in later sections of this Appendix. It should be noted at this point that the contact characteristic "race" did not have enough variance to use it as a measure of diversity. Of the 1020 contacts on which data was gathered, only 75 (7%) indicated a race other than black.

The Measures of Interpersonal Network Diversity

A full description of the measurement procedures for each of the individual measures follows.[1] Table 39 lists all 15 measures with their means, standard deviations, code ranges, and number of non-responses. In addition, Table 39 reports the interjudge coding reliabilities for each measure.

Number of periods of day with contacts. This measure was derived from a log in which respondents listed and described all the contacts they had "yesterday." This measure taps the spread of these contacts throughout the day--morning, afternoon, and evening. Table 40 (on page 186) shows the mean number of contacts (as well as standard deviations and code ranges) for each time segment.

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[1]See Appendix B for a full description of the measurement procedures which were applied to all classes of variables.

Table 39. Interpersonal network diversity--list of variables, means, standard deviations, code ranges, non-responses, and interjudge coding reliabilities.

Variable	Means	s.d.	Code range	No. non-responses	r_{xx} [a]
No. periods of day with contacts	1.97	1.01	0-3	0	96%
Outside home diversity of contacts [b]	68.23	41.44	0-100	0	99%
Sex diversity of contacts [b]	19.45	26.25	0-100	0	98%
No. different topics with contacts	4.18	3.15	0-17	0	92%
Average topics per contact	1.32	.66	0.0-3.3	0	92%
No. different non-home topics with contacts	.95	1.40	0-11	0	90%
Non-home topic diversity [b]	18.02	25.60	0-100	0	90%
Location diversity of contacts [b]	24.13	36.11	0-100	0	98%
Non-ghetto diversity of contacts [b]	4.74	15.42	0-100	0	98%
Work diversity of contacts [b]	43.74	38.02	0-100	0	98%
Average distance to contact homes	53.51	105.22	0-997	0	95%
No. blocks to respondent job	50.84	101.05	0-997	0	97%
Cosmopoliteness	2.21	1.18	0-4	0	92%
Organizational diversity [b]	44.57	47.32	0-100	0	95%
No. organizations belong to	1.67	1.47	0-7	0	93%

[a] The measure of interjudge coding reliability (r_{xx}) used is Stempel's percentage agreement index (Stempel 155). See Chapter II for full details. The criterion for interjudge coding reliability was agreement to an exact code on all these measures.

[b] All measures of diversity were obtained by various indexing procedures. See the text of this Appendix for details.

Table 40. Means, standard deviations, and code ranges for number of interpersonal contacts during morning, afternoon, and evening time segments.

Time segment	Mean	s.d.	Code range
Morning	1.60	1.27	0-8
Afternoon	1.15	1.38	0-8
Evening	0.86	1.21	0-8

Contacts, here, include people living both in and outside the respondent's home. To create the final measure, the number of time segments in which a given respondent had contacts was counted.

Outside home diversity of contacts. This measure is also based on the descriptive log of respondent contacts yesterday. To create the measure, the following ratio was formed: 100 x number of contacts yesterday who lived outside respondent's home plus total number of contact sheets completed. The average number of total contacts yesterday was 3.46. The average number of outside home contacts was 3.11. On the average, 68% of the respondent contacts were people who lived outside respondent homes.

Sex diversity of contacts. Also based on the contact log, this measure taps the proportion of a respondent's contacts yesterday who were of the opposite sex. Of the total 1020 contacts on which data was collected, 363 (35%) were male. The proportion here reflects, it appears, the fact that the sample itself was only 39% male. To create a measure of diversity, the following ratio was completed on the basis of each respondent's contacts: 100 x number of contacts of opposite sex plus total number of contact sheets completed. Results show that on the

average, 19% of each respondent's contacts yesterday were of the opposite sex.

Number of different topics talked about. For each contact sheet completed, respondents were asked to list all topics they talked about with the contact. A content analysis of these topics was completed in several stages. First, a detailed list of different topics across the entire sample was listed. In all, 111 different topics of conversation emerged from this analysis. On the average, each respondent spoke about four different topics with all his contacts yesterday or a total of 4080 topics across all 1020 contacts. This diversity measure is simply the count of the number of different topics the respondent talked about yesterday with all his contacts.

Average topics per contact. Based on the content analysis of topics of conversation, this measure is simply the average number of different topics talked about with each contact. Across all 1020 contacts, the average number of topics talked about was 1.32. This measure was created in order to account for this fact that respondents had differing numbers of total contacts.

Number different non-home topics. This measure was also based on the content analysis of topics. However, the focus here changes from quantity of topics talked about to quality. To create this measure, a second level content analysis was completed. The 111 different topics originally gleaned from content analysis were categorized into 24 major categories. These were then divided into two groups: (a) "home" topics centering on home, family, and friends; and (b) "non-home" topics centering on social problems, the news, and issues more remote from self.

Home topics included the following topic categories: family and personal problems; children; health problems; housework; housing; food; clothing; cars; other shopping; money problems; religious activities; vacations; and general talk. Non-home topics included the following topic categories: jobs and employment; crime; education; mass media; news; the city and neighborhood; welfare problems; black unity and militancy; predjudice and race hatred; politics; and government.

Of the total 4080 topics talked about by all respondents, roughly 25% fell into the "non-home" topic division. For the average respondent, out of the four different topics he talked about with all contacts, one was a "non-home" topic.

Non-home topic diversity. This measure is derived directly from the measure above and was created in order to account for the differing number of total topics talked about from respondent to respondent. This measure was created by computing this ratio for each respondent: 100 x number of non-home topics talked about across all contacts plus total different topics talked about across all contacts. On the average, 18% of each respondent's topics were "non-home topics."

Location diversity of contacts. Also based on the daily contact log, this measure taps the diversity of the location of interaction between a respondent and his contacts. For each contact, the respondent was asked whether he was in his own home when he made the contact or whether he was elsewhere. Of the 1020 contacts on which data was collected, 669 (66%) of the interactions occurred in the respondent's home. To create the location diversity measure for a respondent, the following ratio was computed: 100 x number of contacts outside own home plus

number of total contact sheets completed. For the average respondent, 24% of his interactions occurred outside his own home.

Non-ghetto diversity of contacts. To tap the extent to which a respondent's contacts go beyond the tight ghetto peer-kinship network, this measure was created. For each of his contacts, a respondent was asked whether he considered the contact "a friend or a relative." A contact who is defined as outside the peer-kinship network is one who falls into neither of these two categories. To create the measure, the following ratio was used: 100 x number of contacts who were neither friends nor relatives plus number of contact sheets completed. On the average, 15% of each respondent's contacts were outside the peer-kinship network.

Work diversity of contacts. This measure, also based on the contact log, taps whether a respondent's contacts held down a job. For each contact, the respondent was asked to indicate whether the contact worked or not. Of the total 1020 contacts on which data was gathered, 386 (38%) had jobs. This proportion is lower than the proportion of respondents who worked (50%). To create the measure, the following ratio was computed: 100 x number of contacts who work plus total number of contact sheets completed.

Average distance to contact homes. This measure was created to tap the extent of geographic spread of a respondent's contacts. For each contact, the respondent was asked to say how many blocks away the contact lived. To create the measure, the following ratio was used: total number of blocks away for all contacts plus total number of contact sheets completed. Results indicate that on the average, a respondent's

contacts live 53 blocks from the respondent's home with a wide range of from 0 to 900 or more blocks.

Number blocks to respondent's job. This measure taps the extent to which the respondent's job takes him outside the ghetto area. Each respondent was asked "the number of blocks" from his home to his job. On the average, respondents reported they traveled 51 blocks (about 3 1/3 miles) to work.

Cosmopoliteness. Four items in the original questionnaire tapped cosmopoliteness or the frequency with which respondents traveled distances away from their own homes. The four items asked respondents when they last traveled outside their own neighborhood, went downtown, traveled outside Cleveland, and traveled outside the state of Ohio. The items were originally open-ended. In coding operations, answers were coded into a 32 point scale with a 00 code meaning "today" and a "32" code meaning "never." On the average, respondents had gone outside their own neighborhood 7-10 days ago; had gone to downtown Cleveland 15-21 days ago; had gone outside Cleveland four months ago; and had gone outside Ohio one year ago. To create the measure used in this study, each of these individual measures of cosmopoliteness was split empirically at the median. Respondents who had exhibited the cosmopolite behavior more frequently were recoded to "1"; those who fell below the median were recoded to "0." These scores were then summed across items for each respondent. A split-half reliability coefficient was computed to check to homogeneity of this overall measure of cosmopoliteness. When corrected for length, the resulting r_{nn} was .44.

Number of organizations belong to. This measure taps the extent of the respondent's participation in formal organizations. Respondents were asked to list all organizations they belonged to in eight organization categories--sports, social, school, church, political, civil rights, union, and home owners. This measure is simply the sum of all organizations the respondent reported. Respondents indicated that on the average they belonged to 1.67 organizations.

Organizational diversity. This measure is derived directly from the one above and was created to account for the fact that some respondents belonged to a number of organizations which were all of one type. Conceptually, it was felt, for example, that a respondent who belonged to four sports clubs was less diverse in his organizational behavior than a respondent who belonged to one civil rights club and one sports club. To create this measure, a count was made of all the organizational types in which the respondent listed one or more organizations to which he belonged. The following ratio was then created: 100 x number of different types into which respondent's organizations fell plus total organizations respondent belonged to. The mean of the resulting diversity measure was 44.57.

Factor Analysis of Interpersonal Network Diversity

The 15 measures described above were then factor analyzed. See Appendix B for a full rationale for and description of procedures used. Table 41 reports the results of the two rotated factor solutions. Table 42 (on page 193) displays the correlation matrix upon which the factor solutions were based. Table 43 (on page 194) reports the variable

Table 41. Factor analyses of the 15 measures of interpersonal network diversity--two and three-factor rotated solutions.

Variable	Two-factor solution factor loadings F1	F2[a]	Three-factor solution factor loadings F1	F2	F3
(1) No. periods of day with contacts	.77	-.04	.85	.06	.07
(2) Outside home diversity of contacts	.82	-.15	.85	-.08	.12
(3) Sex diversity of contacts	.57	-.05	.54	-.07	.20
(4) No. different topics with contacts	.79	-.04	.84	.04	.11
(5) Average topics per contact	.59	-.02	.65	.07	.03
(6) No. different non-home topics with contacts	.62	.36	.31	.08	.78
(7) Non-home topic diversity	.49	.37	.13	.03	.84
(8) Location diversity	.56	.05	.36	-.14	.50
(9) Non-ghetto diversity of contacts	.31	.16	.12	-.02	.47
(10) Work diversity of contacts	.79	-.03	.67	-.10	.37
(11) Average distance to contact homes	.17	.03	.23	.11	-.07
(12) No. blocks to respondent's job	.08	.23	-.07	.08	.35
(13) Cosmopoliteness	.21	.26	.13	.20	.24
(14) Organizational diversity	.02	.85	.03	.91	.11
(15) No. organizations belong to	.02	.85	.04	.91	.10
Proportion of variance accounted for by factor	28.7%	12.6%	24.3%	11.8%	14.6%
Proportion of variance accounted for by entire factor solution		41.3%		50.7%	

[a]The factor chosen for which factor scores were created to tap interpersonal network diversity.

Table 42. Pearson product-moment correlations between the 15 measures of interpersonal network diversity.

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
(1)	---														
(2)	.67	---													
(3)	.34	.44	---												
(4)	.65	.64	.34	---											
(5)	.44	.43	.18	.63	---										
(6)	.31	.29	.20	.49	.35	---									
(7)	.16	.24	.15	.19	.27	.79	---								
(8)	.33	.36	.33	.24	.09	.32	.30	---							
(9)	.16	.17	.15	.17	.02	.25	.20	.23	---						
(10)	.56	.66	.47	.49	.27	.37	.33	.49	.23	---					
(11)	.11	.14	.11	.09	.08	.01	-.02	.14	.03	.08	---				
(12)	.01	-.03	.12	.00	-.06	.07	.08	.12	.07	.13	.05	---			
(13)	.15	.09	.13	.12	.10	.15	.13	.13	.07	.11	.10	.16	---		
(14)	.07	-.01	.01	.04	.03	.14	.09	.02	.06	.01	.06	.09	.11	---	
(15)	.09	-.00	.02	.05	.03	.14	.12	.02	.05	.03	.03	.05	.10	.73	---

[a]The numbers identifying variables here refer back to Table 41 where each variable is listed with an identification number.

[b]Correlations of ±.10 or greater are significant with n = 366 at $p<.05$.

Table 43. Variable communalities, factor purities, and factor score coefficients for the overall index of interpersonal network diversity.

Variable	Communality on the chosen 2-factor solution[a]	Factor purity on chosen factor[b]	Factor score coefficient[c]
No. periods of day with contacts	60%	.00	-.06
Outside home diversity of contacts	69%	.03	-.11
Sex diversity of contacts	33%	.01	-.05
No. different topics with contacts	63%	.00	-.06
Average topics per contact	35%	.00	-.04
No. different non-home topics with contacts	51%	.26	.17
Non-home topic diversity	37%	.36	.18
Location diversity of contacts	31%	.01	-.00
Non-ghetto diversity of contacts	12%	.22	-.06
Work diversity of contacts	62%	.00	-.05
Average distance to contact homes	3%	.04	-.01
No. blocks to respondent's job	6%	.88	.12
Cosmopoliteness	11%	.58	.13
Organizational diversity	73%	1.00	.46
No. organizations belong to	72%	.99	.45

[a]The communality of a given variable (h^2) is interpreted as the percent of variance in that variable explained by the chosen factor solution, including all of its factors.

[b]The measure of factor purity used here is $(FL)^2 / h^2$ or the square of the factor loading of a variable on the chosen factor divided by the proportion of variance accounted for in the variable by the total chosen factor solution. This may be interpreted as the proportion of the variance accounted for in a variable which is accounted for by the chosen factor.

[c]In creating one factor score measuring interpersonal network diversity, a respondent's final score is the sum of his raw scores on the 15 measures, each multiplied by the appropriate factor score coefficient. The factor score coefficient may be interpreted as a beta-weight for an individual variable's regression on the hypothetically constructed factor.

communalities, factor purities, and factor score coefficients for the overall index of interpersonal network diversity.

The second factor of the two-factor solution (Table 41) was chosen as the factor which best tapped the conceptual variable--interpersonal network diversity. However, an analysis of both the two and three-factor solutions is needed to explain this choice.

In the two-factor solution, all the measures of diversity which were derived from analyses of the characteristics of interpersonal contacts loaded highest on the first factor. The four measures which were defined as "central" to the interpersonal diversity notion in the beginning of this Appendix--number of blocks traveled to work, cosmopoliteness, organizational diversity, and number of organizations belonged to--loaded highest on the second factor. Factor 2, however, was not devoid of representation from the other variables as the two measures relating to topic diversity had quite sizeable loadings on factor two.

In the three-factor solution, a third factor emerged with highest loadings for the topic diversity measures, non-ghetto diversity, location diversity, number of blocks traveled to work, and cosmopoliteness.

Thus, in the three-factor solution, the four "central" variables in terms of the conceptual goal of measuring interpersonal network diversity have essentially split into two factors. This left the organizational diversity measures as the only two measures with highest loadings on factor two.

Thus, the second factor of the two-factor solution was chosen to represent interpersonal network diversity because: (a) the four "central"

measures as defined a priori loaded highest on it; and (b) the factor still held within its bounds some components of diversity derived from actual contact characteristics, namely topic diversity.

As a final measurement operation, factor scores were created for each respondent on the chosen factor. The scores were created by multiplying a respondent's raw scores on each of the component variables by the factor score coefficient for that variable (listed in Table 43) and summing these products across variables.

The resulting factor scores had a range from -2.76 to +2.43 with a mean of 0 and standard deviation of 1. For the analysis of variance assignment of respondents to cells, a median split was made on the empirical distribution. The median factor score value was -.16. The 183 respondents with scores of -.16 or higher were assigned to high interpersonal diversity cells; the 183 respondents with scores of -.17 or lower were assigned to low diversity cells.

APPENDIX F

THE MEASUREMENT OF THE CRITERION VARIABLES (INFORMATION CONTROL)

APPENDIX F

THE MEASUREMENT OF THE CRITERION VARIABLES (INFORMATION CONTROL)

Chapter I provides a general conceptual introduction to the criterion variables for this study. This Appendix specifies the operationalizations of these variables.

In Chapter I, the general criterion variable (information control) was seen as being organized around outcomes. Getting consumer credit, getting a job, and obtaining more voice in what goes on are all examples of outcomes. Six different classes (components of information control) of criterion variables were posited: (1) attitude toward outcomes; (2) awareness of sources of information on ways to achieve outcomes; (3) knowledge of means of achieving outcomes; (4) use of criteria for evaluating means; (5) evaluation of means; and (6) history of means used in the past. These component classes are seen as reflecting various aspects of an individual's use of information for control (to achieve better outcomes).

The number of outcomes which any individual must make decisions on in an urban society are large. For this study, a small set of outcomes was chosen. The most frequently used outcome is "getting credit to buy goods and services." This is the one outcome on which information control was analyzed in depth. This problem area was chosen because prior research specified it as a major problem area of the poor (and general population adults as well). In addition, the area of consumer credit is one in which objective evidence specifies clearly what is a

better outcome in terms of at least one evaluation attribute--cost. Thus, tests can be made of whether respondents are aware of the cost of using credit and whether respondents can compare credit sources in terms of cost.

Additional "outcomes" were used in this study when it was felt that a wider area of behavior could and should be tapped. These additional outcome areas will be specified below.

In all, 39 different criterion variables were developed for this study. Table 44 divides these 39 variables into variable classes. The first six classes are the components of information control posited in Chapter I. The last class includes demographic variables. Table 44 also lists means, standard deviations, code ranges, and interjudge coding reliabilities for each variable.

Attitude Toward Outcome

The first component of information control was posited as attitude toward outcome. One variable was developed to tap this component--attitude toward using credit and borrowing money to buy things. In two items, respondents were asked whether they thought using credit or borrowing money to buy things was a "good idea," "so-so idea," or "bad idea." Coded on a three-point scale (good idea = 3), the mean favorability toward credit was 2.28 (s.d. of .83); the mean favorability toward borrowing money to buy things was 1.68 (s.d. of .83). The Pearson product-moment correlation between the two items was .34, yielding a corrected split half reliability of .51. To create the overall measure, the two items were summed. Non-responses on the original items were recoded

Table 44. Criterion variables--list of variables, means, standard deviations, code ranges, non-responses, and interjudge coding reliabilities.

Variable class	Variable	Means	s.d.	Code range	No. non-responses	r_{xx}[b]
Attitude toward outcome	attitude toward credit	3.96	1.39	2-6	0	100%
Awareness of sources of information (general sources--past use)	use of in-ghetto sources[d]	4.91	1.48	3-9	0	100%
	use of pastor[d]	1.38	.61	1-3	0	100%
	use of teacher[d]	1.33	.62	1-3	0	100%
	use of civil rights leader[d]	1.22	.54	1-3	0	100%
	use of doctor[d]	1.90	.78	1-3	0	98%
	use of lawyer[d]	1.47	.62	1-3	0	100%
	use of public housing agency[d]	1.26	.56	1-3	0	100%
	use of social woker[d]	1.39	.65	1-3	0	100%
	use of co-worker[d]	1.37	.63	1-3	0	98%
	use of public health agency[d]	1.53	.72	1-3	0	100%
	use of professionals	10.27	2.65	7-18	0	100%
(sources named on 10 problems)	total sources named	13.50	2.96	5-24	0	85%
	no. media named	1.20	1.24	0-7	0	85%
	no. of stores named	.83	1.24	0-6	0	95%
	no. of people named	4.15	2.39	0-13	0	85%
	no. of institutions named	7.97	2.46	1-16	0	93%
	no. of professionals named	.98	.70	0-4	0	85%
	no. of in-ghetto sources named	2.30	2.03	0-10	0	85%
	no. of non-profit sources named	3.73	1.68	0-9	0	85%
Knowledge of means	no. of means named	2.82	1.25	2-6	0	92%
	no. of in-ghetto means named	15.91	20.76	0-100	0	100%
	naming of bank[d]	1.51	0.50	1-2	0	100%
Use of criteria	importance of "friendly"[d]	3.08	1.04	1-4	23[a]	98%
	importance "gives good deal"[d]	1.82	1.01	1-4	24[a]	100%
	discrepancy from expert rank	3.12	2.28	0-8	26[a]	98%

Table 44 (cont'd.)

Variable class	Variable	Means	s.d.	Code range	No. non-responses	r_{xx} [b]
Evaluation of means	credit rate knowledge	.38	.68	0-4	0	95%
	discrepancy from expert evaluation	2.75	2.11	0-8	31[a]	95%
	discrepancy from norm evaluation	13.25	4.69	0-28	40[a]	90%
History of means used in past	frequency credit use	7.97	7.37	0-48	0	90%
	use of in-ghetto means[d]	3.90	5.33	0-27	0	90%
	no. of charge accounts[d]	1.01	1.50	0-8	0	98%
	political activity	2.53	1.38	0-6	0	100%
Demography and related psy-cological variable	education[d]	10.23	2.51	0-16	0	97%
	socioeconomic status	2.33	1.75	0-12	0	95%[c]
	marginal income status	.39	.49	0-1	0	100%
	age[d]	3.33	1.11	2-6	0	100%
	sex[d]	1.39	.49	1-2	0	100%
	family size	4.19	2.48	1-8	0	98%

[a]Non-responses on these items were considered too high to allow for encoding to some central value. In all analyses, respondents with no answers on these items were deleted.

[b]The measure of interjudge coding reliability (r_{xx}) used is Stempel's percentage agreement index (Stempel 1955). See Chapter II for full details.

[c]For all measures except this one--socioeconomic status--the interjudge coding reliability criterion was agreement to an exact code. For this measure, the criterion was relaxed to agreement within one point on a 12 point scale because of the degree of subjective decision making involved. The r_{xx} with an exact code criterion was 65%.

[d]These 18 measures ere obtained from single closed-ended items in the original questionnaire. The remaining 22 items are, in themselves, indexes derived from two or more items in the questionnaire. See text in this Appendix for details.

to the mean. Three respondents had non-responses on one of the two items.

Awareness of Sources of Information

A total of 19 measures were developed to tap this component of information control which deals with respondent awareness of sources of information who might help him gain better outcomes. Two general methods were used to collect data for these measures. The first asked respondents whether they had used a series of sources in the past. The second asked respondents who they would ask for help or information in a series of 10 problem areas.

Use of information sources in the past. Measures in this section were all collected by asking respondents whether they had used a series of sources "for help or information about something you've needed." Sources in this list were: friends, neighbors, relatives, pastor, teacher, civil rights leader, doctor, lawyer, public housing agency, social worker, co-worker, and public health agency. Response alternatives were "no," "yes, a little," and "yes, a lot" on a three-point scale from 1 to 3. Table 45 lists the means and standard deviations for each source as well as the percentage of respondents who said they had used each source type at least "a little." In the total series of items, there were only four non-responses which were recoded to the mean. No respondent had a non-response on more than one item.

To create the actual measures used, for sources types numbered 4-12 in Table 45, no further computations were done. Two additional measures were created. The first--use of in-ghetto sources in the past--is the sum of respondent scores for sources 1-3 (friends, neighbors, and

Table 45. Information sources used in the past--means, standard deviations, and percentage of respondents who used the source at least "a little."

Source	Mean	s.d.	Percentage of respondents who used source at least "a little."
(1) Neighbors	1.47	.62	40%
(2) Friends	1.74	.69	28%
(3) Relatives	1.70	.72	55%
(4) Pastor	1.38	.61	31%
(5) Teacher	1.33	.62	25%
(6) Civil rights leader	1.22	.54	16%
(7) Doctor	1.47	.78	64%
(8) Lawyer	1.47	.63	40%
(9) Public housing agency	1.26	.56	21%
(10) Social worker	1.39	.65	30%
(11) Co-worker	1.37	.63	29%
(12) Public health agency	1.53	.72	40%

relatives). The corrected split-half reliability between these measures was .61. On additional measure--use of professionals in the past--was created by summing respondent scores on these seven sources: pastor, teacher, doctor, lawyer, public housing agency, social worker, and public health agency. The corrected split-half reliability for this measure was .52.

Naming of information sources in 10 problem areas. While the measures above give an insight into what sources respondent had used in the past, this class of measures asked what sources they were aware of for 10 hypothetical problems. Respondents were asked who they would go to for information if they were confronted with each of these 10 problems.

1. Buying a TV set.
2. Getting a car fixed.
3. Finding a place to live.
4. Finding a good place to buy groceries.
5. Finding the best place to borrow money
6. Finding a job.
7. Buying a stove.
8. Finding a new doctor.
9. Helping a friend who was picked up by police for something he didn't do.
10. Helping a family whose father is out of work and needs money for food.

A preliminary content analysis showed that a total of 106 different sources were named across all 10 problems by all respondents. Respondent answers were then content analyzed in terms of eight dimensions:

1. Total sources named. A count of the number of sources named by a respondent in a problem area.

2. Number stores named. A count of the number of sources named by the respondent which were commercial stores or sellers.

3. Number people named. A count of the number of sources named in "people" terms rather than "institutional terms." As an example, social worker was coded as "people" while "welfare department" was coded as "institution."

4. Number institutions named. See above.

5. Number professionals named. A count of the number of sources named who are generally thought of as professionals--social worker, teacher, lawyer, doctor, pastor, nurse, judge.

6. Number print media named. A count of the number of sources named which were print media--newspapers, magazines, phone-book, library, general reading.

7. Number in-ghetto peers. A count of the number of times "friends, neighbors, relatives, and co-workers" were named.

8. Number of service organizations. A count of the number of times a respondent mentioned an organization (or person working in such an organization) whose stated purpose is to help people with problems.

It was felt that these dimensions tapped at least some of the information control notions referred to in Chapter I. In order to create adequate variability (and deal with a fewer number of measures), respondent's scores within a dimension were summed across all 10 problem areas. Table 46 lists the number of sources named in each problem area, total sources named across problem areas, and the split-half reliabilities for the final eight measures. Table 47 (on page 207) lists the means and standard deviations for the eight content analyses within each of the 10 problem areas. The means and standard deviations for the final measures are included in Table 44 (on pages 199-200).

Knowledge of Means

This component of information control taps the respondent's ability to name means of reaching outcomes. For this study, the outcome for which data was collected was "getting consumer credit." Respondents were asked two questions to tap this ability. The first asked respondents to name all the places "you know of to borrow $200." The second asked respondents to name all the places "you know of to buy a TV set on credit." Table 48 (on page 208) lists the means named across all respondents with the percentage of respondents who named each means. To create a preliminary set of measures, each respondent was coded "2" if he named a given means, "1" if he did not. The means and standard deviations of these measures are also listed in Table 48.

Three final measures were used. One simply the total means named for borrowing and credit by each respondent. The correlation between the number of means named for borrowing and the number named for credit was

Table 46. Results of content analysis of sources named for information in 10 problem areas--number of sources named in each problem area, total sources named across problem areas and corrected split-half reliabilities for final measures.

Content analysis dimension	The 10 problem areas										Total across problems	r_{nn} [c]
	TV	Car	Live	Groc.	Borrow	Job	Stove	Doctor	Police	Family		
Total sources[a]	450	436	483	523	476	505	443	443	567	611	4937	.63
No. of stores[b]	48	49	---	125	23	---	62	---	---	---	317	.48
No. of people	99	138	133	50	205	100	34	209	445	99	1512	.40
No. of institutions	352	239	315	388	286	384	387	215	60	259	2885	.39
No. of professionals	0	1	4	0	13	1	3	34	280	23	359	.04
No. of media (print)	25	5	120	144	5	78	36	25	0	0	438	.50
No. of in-ghetto peers	70	78	76	50	179	72	22	188	62	43	840	.50
No. of service organizations	6	6	34	2	77	283	8	228	414	306	1364	.37

[a]The figures here are the total number of sources named (as determined by content analyses) within each of eight dimensions across all 366 respondents. The means and standard deviations for each of the 10 problem areas are listed in Table 32. The means and standard deviations for the final measures--across all 10 problem areas--are listed in Table 33.

[b]This content analysis was completed in only five of the 10 problem areas because it was determined (on the basis of a 20% random sample) that respondents did not list commercial sellers and stores as information sources in five problem areas.

[c]The measure of r_{nn} used was a Pearson product-moment correlation computed between the sums of respondent scores on one half the problems to the other half of the problems. This correlation was corrected for length. See Appendix B for details.

Table 47. Results of content analysis of sources named for information in 10 problem areas--means and standard deviations in each problem area.

Content analysis dimension	The 10 problem areas									
	TV	Car	Live	Groc.	Borrow	Job	Stove	Doctor	Police	Family
Total sources										
mean	1.23	1.19	1.32	1.43	1.30	1.38	1.21	1.21	1.55	1.67
s.d.	.54	.55	.57	.63	.72	.61	.46	.49	.74	.77
No. of stores										
mean	.16	.10	---	.34	.06	---	.17	---	---	---
s.d.	.45	.31	---	.68	.27	---	.44	---	---	---
No. of people										
mean	.27	.38	.36	.14	.57	.27	.09	.57	1.22	.28
s.d.	.52	.58	.54	.36	.78	.51	.30	.64	.72	.55
No. of institutions										
mean	.96	.75	.86	1.04	.78	1.05	1.06	.59	.16	.72
s.d.	.58	.54	.58	.71	.72	.60	.57	.57	.38	.76
No. of professionals										
mean	.00	.00	.01	.00	.04	.00	.01	.09	.76	.06
s.d.	.00	.05	.10	.00	.19	.05	.09	.30	.51	.24
No. of media (print)										
mean	.07	.01	.33	.39	.01	.21	.10	.07	.00	.00
s.d.	.28	.12	.48	.53	.12	.42	.34	.26	.00	.00
No. of in-ghetto peers										
mean	.19	.21	.21	.14	.49	.20	.06	.51	.17	.12
s.d.	.44	.47	.43	.37	.68	.43	.24	.60	.42	.35
No. of service organizations										
mean	.02	.02	.09	.01	.21	.77	.02	.62	1.13	.84
s.d.	.13	.13	.31	.07	.43	.54	.15	.59	.68	.78

Table 48. Means named for obtaining credit--means and standard deviations, and percentage of respondents who named each different means.

Means of obtaining credit	Mean	s.d.	Percentage of respondents who named this means
Means for borrowing $200			
bank or savings and loan	1.51	.51	52%
credit union	1.26	.44	26%
finance company	1.39	.49	39%
friend or neighbor	1.21	.41	22%
pawnbroker	1.02	.15	2%
relative	1.28	.45	28%
total means named	1.69	1.05	---
Means for TV set on credit			
door-to-door sales	1.02	.15	2%
department store	1.76	.42	77%
discount store	1.11	.32	12%
furniture or applicance store	1.21	.41	21%
total means named	1.13	.51	---
total means named for all--both borrowing and credit	2.82	1.25	---

.37, yielding a corrected split-half reliability of .54.

The second measure created tapped the proportion of means named by respondents which were "in-ghetto" means--friends, neighbors, pawnbrokers, relatives, or door-to-door salesman. To create this measure, the following ratio was used: 100 x number of in-ghetto sources named plus total sources named. In addition to these two measures, the item tapping respondent naming of a "bank or savings and loan" was used separately as a criterion variable. This measure was used because of all the "establishment" sources available to everyone (credit unions were excluded because

they require that the respondent hold down a job), banks and savings and loans give the lowest credit rates.

Use of Criteria for Evaluating Means

This component of information control taps the respondent's use of criteria for evaluating means. For this study, the concern was on the respondent's use of four criteria for evaluating means of obtaining credit. The four criteria were: (1) gives good deal; (2) friendly; (3) easy on you when you can't pay; and (4) easy to get. The respondent was asked to rank order these criteria (from 1 to 4 with 1 being most important) in terms of their importance in choosing a place to buy something on credit or borrow money. Three measures were used from the resulting data. The first is simply the rank on "friendly." The second is the rank on "gives good deal." These two measures were used because it was felt that they tapped two extremes of judgment. "Gives good deal" is the attribute which expert's agree "should" be used in evaluating credit sources while "friendly" is the attribute which Caplovitz (1963) suggested might be used by the poor. Caplovitz also suggested, in describing the sellers in the ghetto, that many of the sellers with higher costs (door-to-door salesman, appliance stores, etc.) try to appeal to ghetto customers on a friendship basis.

A final measure in this section taps the discrepancy between the respondent's rank of the attributes and an expert rank as gleaned from the consumer literature. The "expert" rank was: gives good deal, 1; easy on you when you can't pay, 2; easy to get, 3; and friendly, 4. To obtain the discrepancy score for a respondent, the difference between

the respondent's rank and the expert's rank were summed across the four attributes. The resulting measure had a range from 0 (no discrepancy) to 8 (maximum discrepancy), with a mean of 3.12 and standard deviation of 2.28.

Evaluation of Means

This component of information control taps the respondent's ability to apply criteria to means in order to determine the "best outcome." Two kinds of measures were used here--one based on respondent knowledge of credit rates across four means of getting credit, the other based on the way in which the respondent compared four means of getting credit in terms of the four criteria described in the above section.

For the first measure--knowledge of credit rates--respondents were asked "How much do you think the following places would charge you to borrow $200 for one year so you could buy a TV set?" The four places were a bank, a credit union, a finance or loan company, and a department store. Credit rates at these institutions were determined by consulting an expert.[1] They are respectively, 12%, 12%, 26%, and 18%. Respondent answers were coded right (code of "1") or wrong (code of "0"). Right answers were answers within $5 plus or minus of the actual cost. The proportion of right answers was relatively small--15% on the bank item, 10% on credit union, 11% on finance company, and 4% on department store. To create a measure of credit rate knowledge, the number of right answers across the four items were summed. For the entire sample, 72% of the

[1]Vice president of Public Relations, First Trust and Deposit Co., Syracuse, N.Y.

respondents got no right answers.

The final two measures in this section are based on the respondent's ranking of the four credit means--(bank, credit union, finance company, and department store) on four criteria (gives good deal, friendly, easy on you when you can't pay, easy to get.) The first measure derived from this data--discrepancy from expert evaluation--compares respondent ranks of the credit sources to expert ranks on the attribute "gives good deal." In a sense, this is a knowledge measure analogous to credit rate knowledge. The expert rank for this measure was: bank, 1.5; credit union, 1.5; finance company, 4, and department store, 3. The discrepancy between respondent ranks and expert ranks were summed across the four credit institutions.

The last measure of evaluation of means is the discrepancy of the respondent's rank of the four credit means across all four criteria from the normative (average) rank of the sample. This measure was included because of evidence (cited in Chapter I) that suggests that in-ghetto evaluation of means is often quite different from "establishment" evaluation. This measure, then, gives an indication of how close or far a respondent is from the ghetto norm. To create the measure, the procedure described above was used. The difference between respondent's ranks and average ranks for the sample were summed over all comparisons. The resulting measure had a range from 0 (no discrepancy) to 28 (maximum discrepancy) with a mean of 13.25.

History of Means Used in Past

The last component of information control taps the respondent's use of means in the past. It is reasoned that this component reflects

the respondent's past ability at achieving "better outcomes." Three of the measures here relate to "getting consumer credit" as an outcome. A fourth measures political activity and relates to the outcome "getting more voice in what happens."

Measures relating to credit. One measure simply taps the number of charge accounts the respondent reported having. The other two measures were derived by asking respondents how many times in the last three years they had borrowed money or used credit from nine different sources. Table 49 shows the percentage of respondents who used each of the nine credit sources in the past three years along with the means and standard deviations for each source. One final measure of past use of credit is simply the sum of respondent scores across all nine sources. A correlation between respondent scores for borrowing sources and respondent scores for credit sources was .58, yielding a corrected split-half reliability of .73.

The final measure in this section sums respondent credit activity in the past for "in-ghetto" sources of credit--friends, neighbors, pawnbrokers, relatives, and door-to-door salesman. The split-half odd-even reliability for this measure was .77.

Political activity. The final measure of information control is a political activity scale derived from six items which asked respondents whether they had spent time on six different political activities. Table 50 (on page 213) lists the activities, the means, standard deviations, and percentage of respondents who had spent time on each activity. To create the measure of political activity, respondent scores were summed across items. No respondent had non-responses. The odd-even split-

Table 49. Places used for obtaining credit in the past--means and standard deviations and percentage of respondents who named each place.

Place	Mean	s.d.	Percentage who used this place at least once in past three years
Places for borrowing money			
bank or savings and loan	.53	.98	27%
credit union	.54	1.22	22%
finance or loan company	.73	1.38	31%
friend or neighbor	1.50	2.48	36%
pawnbroker	.21	.96	8%
relative	1.71	2.62	40%
total in past three years	5.19	5.68	---
Places for buying on credit			
door-to-door salesman	.50	1.30	19%
department store	1.79	2.17	56%
discount store	.50	1.48	14%
total in past three years	2.78	3.53	---
total for borrowing and credit	7.97	7.27	---

half reliability between the items was .51.

Demography

A number of demographic variables are included in this study as "criterion measures." The purpose here is to check whether demographic variables might be accounting for differences in information control. The demographic variables include sex, age, family size, and education (last year of school completed). In addition, a measure called "marginal income status" taps whether a respondent's reported family income came in

Table 50. Items measuring political activity--means, standard deviations, and percentage of respondents who had spent time on each activity.

Activity	Mean	s.d.	Percentage of respondents who had spent time on the activity
Voting in last presidential election	1.72	.45	72%
Watching presidential election returns on television during last election	1.85	.35	86%
Working to get the city to improve conditions in your neighborhood	1.31	.46	32%
Writing or visiting the major, governor, or other public officials	1.18	.39	19%
Campaigning for a politican	1.32	.47	31%
Participated in marches, sit-ins, or other civil rights demonstrations	1.12	.33	13%

whole or part from social security, welfare, or unemployment insurance.

A final demographic measure was socioeconomic status. The measure used was Troldahl's (1965) measure of occupational prestige. To create a score for each respondent, the occupational prestige of all earners in the household was coded on the Troldahl scale. The scale asks coders to compare respondent occupations to a series of 12 "scale occupations." That scale occupation which has the same prestige as the respondent occupation becomes the code. The scale code used for a respondent was that of the highest prestige occupation in his household.

APPENDIX G

THE MEASUREMENT OF DEPENDENCY ON NEWSPAPERS

APPENDIX G

THE MEASUREMENT OF DEPENDENCY ON NEWSPAPERS

The conceptual emphasis in Chapter I of this study was placed on television as a medium, to the exclusion of the other mass media. The basic notion was that high dependence on television as a medium is dysfunctional to individual efforts at information control. Chapter I does, however, present considerable evidence that the opposite may be true of the print media. While no explicit hypotheses have been stated, it was felt that this study would not be complete without a test of this notion. For this reason, a fourth predictor variable class was developed--measures of respondent dependency on newspapers.

The Measure of Dependency on Newspapers

In all, seven different measures of dependency on newspapers were included. The procedures for handling and indexing these measures were the same as for the other classes of predictor variables (see Appendix B). The measures of newspaper dependency included here are, for the most part, directly analogous to the measures used for television dependency. A full description of the measurement procedures for each of the seven measures follows. Table 51 lists the measures with their means, standard deviations, code ranges, number of non-responses, and interjudge coding reliabilities.

Frequency newspaper reading. Derived from a single closed-ended item, this measure taps how often respondents report they read newspapers

Table 51. Newspaper dependency index--list of variables, means, standard deviations, code ranges, non-responses, and interjudge coding reliabilities.

Variable	Means	s.d.	Code range	No. non-responses	r_{xx}[a]
Frequency newspaper reading[b]	4.80	1.74	1-6	0	97%
No. daily newspapers read (general population newspapers)	1.37	.64	0-3	0	97%
No. newspaper sections read	3.39	2.00	0-8	0	92%
No. newspaper section categories	2.05	1.18	0-5	0	92%
Newspaper category diversity	59.82	35.56	0-100	0	92%
Newspaper ads tell truth[b]	2.08	.67	1-4	0	100%
No. black newspapers and magazines read[b]	2.18	1.33	0-6	0	93%

[a]The measure of interjudge coding reliability (r_{xx}) used is Stempel's percentage agreement index (Stempel 1955). See Chapter II for full details. The interjudge coding reliability criterion for all these measures was agreement to an exact code.

[b]These three measures were obtained from single closed-ended items in the original questionnaire. The remaining four items are indexes derived from content analytic procedures. See text of this Appendix for details.

on a scale from 1 (never) to 6 (everyday).

Number daily (general population) newspapers read. Respondents were asked to name all the newspapers they read regularly providing they had indicated newspaper readership on the above measure. This measure is simply a count of the general population newspapers named. Only three general population newspapers were named by the entire sample: Cleveland Press, Cleveland Plain Dealer, and New York Times.

Number newspaper sections read regularly. Respondents were then asked to name the sections of the newspaper they read regularly. These answers were content analyzed. In total, 40 different references to newspaper sections were made. Examples are: "news in general," "headlines," "Heloise," "obituaries." This measure is simply a count of the number of different sections named by each respondent.

Number newspaper section categories. The 40 different newspaper sections were then divided into five broad categories: (1) news; (2) ads; (3) features; (4) women's pages; and (5) sports and other. A respondent received a score in each of these five categories--the score being the number of the sections he named that fell into each category. Results of this content analysis--the first step in creating this measure--are listed in Table 52. After this content analysis, the respondent's final score on this measure was computed by simply counting the number of categories in which a given respondent named one or more newspaper sections.

Table 52. Results of the content analysis dividing number of newspaper sections read into categories.

Category	Mean	s.d.	Code range	Percentage of respondents with one or more sections in this category
News sections	1.31	.90	0-4	81%
Advertising sections	.26	.53	0-3	23%
Feature sections	.58	.81	0-4	42%
Women's pages	.15	.38	0-2	14%
Sports and other sections	.48	.56	0-3	45%

Newspaper category diversity. In order to add an additional dimension of newspaper use and account for the differing number of newspaper sections named by respondents, this measure was created by developing a ratio: 100 x (number of categories in which newspaper sections fell/number of newspaper sections named). This measure had a range of from 0 to 100. Respondents who named no or only one newspaper section were automatically coded as "0" on this measure. For a rationale for using this type of diversity measure, see Appendix E.

Newspaper ads tell truth. Derived from a single item in the original questionnaire, this measure taps the respondent's opinion on this question: "Do you think the ads in your newspaper tell the truth all of the time, most of the time, some of the time or rarely?"

Number black newspapers and magazines read. This measure is simply a count of the number of publications named by respondents when asked: "Do you read any newspapers or magazines that are mostly for blacks? Can you tell me the names of these newspapers?"

Factor Analysis of Newspaper Dependency Measures

The seven measures described above were then factor analyzed. See Appendix B for a full rationale for and description of procedures. Table 53 reports the results of the two rotated factor solutions. Table 54 (on page 219) displays the correlation matrix upon which the factor solutions were based. Table 55 (on page 220) reports the variable communalities, factor purities, and factor score coefficients for the overall index of newspaper dependency.

Table 53. Factor analyses of the seven measures of newspaper dependency--two and three-factor rotated solutions and principal axis solutions.

Variable	Two-factor solutions factor loadings F1	F2	Three-factor solutions factor loadings F1[a]	F2	F3
(1) Frequency newspaper reading	.73	.20	.75	.14	.08
(2) No. daily newspapers read	.67	.25	.74	.15	-.12
(3) No. newspaper sections read	.81	-.14	.74	-.17	.36
(4) No. newspaper section categories	.28	.85	.32	.86	.13
(5) Newspaper category diversity	.05	.95	.13	.94	-.06
(6) Newspaper ads tell truth	.20	-.09	-.03	.06	.93
(7) No. black newspapers and magazines	.45	.25	.54	.16	-.22
Proportion of variance accounted for by factor	28.1%	26.2%	29.2%	24.7%	15.6%
Proportion of variance accounted for by entire factor solution	54.3%		69.6%		

[a]The factor chosen for which factor scores were created to tap dependency on newspapers.

The first factor of the three-factor solution (see Table 53 was chosen as the factor which best tapped the conceptual variable--newspaper dependency. It is interesting to note that the three-factor solution here is directly comparable to the three-factor solution for television dependency. One factor seems to be tapping general quantity of use of newspapers; another seems to be tapping diversity of newspaper use; the

Table 54. Pearson product-moment correlations between the seven measures of newspaper dependency.

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1)[a]	---						
(2)	.45[b]	---					
(3)	.41	.31	---				
(4)	.30	.29	.23	---			
(5)	.25	.24	.05	.76	---		
(6)	.03	.03	-.16	.09	-.01	---	
(7)	.19	.28	.22	.26	.18	-.04	---

[a]The numbers identifying variables here refer back to Table 53 where each variable is listed with an identification number.

[b]Correlations of ±.10 or greater are significant with n = 366 at $p<.05$.

third taps attitudes relating to newspaper ads. The chosen factor is the one tapping general quantity of newspaper use.

Table 55. Variable communalities, factor purities, and factor score coefficients for the overall index of television dependency.

Variable	Communality on chosen factor solution[a]	Factor purity on chosen factor[b]	Factor score coefficient[c]
Frequency newspaper reading	58%	.96	.37
No. daily newspapers read	58%	.94	.38
No. newspaper sections read	70%	.77	.41
No. newspaper section categories	85%	.12	.01
Newspaper category diversity	91%	.02	-.09
Newspaper ads tell truth	88%	.00	-.08
No. black newspaper and magazines	36%	.79	.27

[a]The communality of a given variable (h^2) is interpreted as the percent of variance in that variable explained by the chosen factor solution, including all its factors.

[b]The measure of factor purity used here is $(FL)^2/h^2$ or the square of the factor loading of a variable on the chosen factor divided by the proportion of variance accounted for in the variable by the total chosen factor solution. This may be interpreted as the proportion of the variance accounted for in a variable which is accounted for by the chosen factor.

[c]In creating one factor score measuring newspaper dependency, a respondent's final score is the sum of his raw scores on the seven measures, each multiplied by the appropriate factor score coefficient. The factor score coefficient may be interpreted as a beta-weight for an individual variable's regression on the hypothetically constructed factor.