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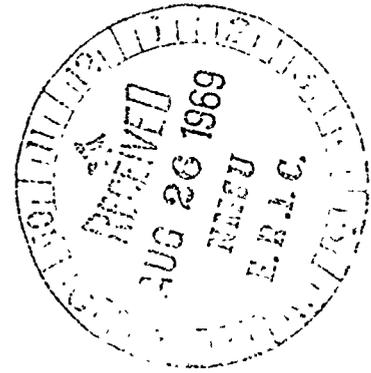
## ABSTRACT

AN EXPERIMENTAL PROGRAM OF DIRECTED SOCIAL CHANGE WAS UNDERTAKEN IN NINE MISSISSIPPI COUNTIES BY THE COOPERATIVE EXTENSION SERVICE WITH SPECIAL FUNDS PROVIDED BY THE FEDERAL EXTENSION SERVICE. THE PURPOSE OF THE PROGRAM WAS TO TEST THE HYPOTHESIS THAT THE CREATION AND USE OF SYSTEMIC LINKS IN EXTENSION WORK WOULD RESULT IN DESIRED CHANGES IN HOMEMAKING PRACTICES AMONG LOW-INCOME FAMILIES. THE ASSUMPTION ON WHICH THE EXPERIMENT WAS BASED WAS THAT WOMEN WHO LIVED IN THE TARGET COMMUNITIES AND WERE THEMSELVES IN THE LOW-INCOME STRATUM COULD COMMUNICATE MORE EFFECTIVELY WITH OTHER LOW-INCOME HOUSEWIVES THAN PROFESSIONALLY TRAINED EXTENSION HOME ECONOMISTS. COUNTY EXTENSION STAFFS IDENTIFIED LIKELY PROSPECTS FOR THE ROLE OF SYSTEMIC LINKS, RECRUITED THOSE PERSONS, PROVIDED INTENSIVE TRAINING EXPERIENCES IN CERTAIN HOMEMAKING PRACTICES, AND THEN INSTRUCTED THEM TO INITIATE CONTACTS WITH CLIENT SYSTEM FAMILIES AND ESTABLISH THEMSELVES IN THE ROLE OF TEACHER AND COUNSELOR. MEASURES OF RECOMMENDED PRACTICE ADOPTION BY CLIENT SYSTEM HOMEMAKERS INDICATED THAT THE CREATION AND USE OF SYSTEMIC LINKS IS AN EFFECTIVE PROCEDURE IN PROGRAMS OF DIRECTED SOCIAL CHANGE. (MF)

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Creating and Using Systemic Links  
Among Low-Income Families\*

by

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and  
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Introduction

Concern of the Study

This study is concerned with the use of a relatively new technique in programmed efforts to bring about directed social change among the disadvantaged. More specifically, it is an attempt to measure the effectiveness of Extension Aides in efforts to help low-income, nonwhite homemakers improve their homemaking practices.

The technique employed, identified above as the use of Extension Aides, was one of the recommendations of the joint USDA/NASULGC Extension Study Committee whose report stated that "use of aides will be a necessity if Cooperative Extension is to make the most of social and economic development and quality of living programs."<sup>1</sup>

The technique is the apparently simple one of selecting from a target audience certain members of the audience, providing specialized

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training in selected practices, and employing the members to provide the same type of training for other members of the target audience.

Use of the technique is based on both practical and theoretical considerations. From a practical standpoint, the use of aides (referred to by some writers as subprofessionals<sup>2</sup>) lengthens the arm of Cooperative Extension as it attempts to relate effectively to disadvantaged target audiences.

Theoretical support of the technique is found in social systems theory and in communications theory. With specific reference to poverty, it has been asserted by a number of writers that poverty is a subculture in American society.<sup>3</sup> The implication of this assertion is that poverty-stricken people are different from other people; they are said to be fatalistic, pessimistic, apathetic, defeatist and alienated.<sup>4</sup> These characteristics, if they are indeed characteristics of the poor, suggest that poverty may be considered as a social system.<sup>5</sup> It follows from this that communication between the poor and various helping agencies staffed by professionally trained persons may be less than perfect. Smith has stated the problem as follows:

Communication across group boundaries runs the danger--aside from language difficulties--of being blocked by differential rules for the ordering of speech and thought.<sup>6</sup>

Thus, members of the poverty subculture and members of the culture of affluence are likely to encounter communication blocks as attempts

are made to establish links between them. Stated differently, various systems in American society exist in a structural hierarchy, and communication between these systems represents an upward and/or downward flow of symbols such that sender and receiver do not always communicate effectively. Therefore, when members of one system, e.g., Cooperative Extension Service, attempt to communicate with members of another system, e.g., the poor, with the objective of bringing about behavioral changes there is a strong probability that the level of change desired by the system initiating communication will not be achieved.

This failure cannot all be explained in terms of communication phenomena, perhaps, but it seems reasonable to assume that if communication between two dissimilar systems can be improved the probability that behavioral change will occur should be greater.

It is within this theoretical framework that this report was prepared. As the title indicates, it is a report of the creation and use of links between two groups, labeled for this report as systems.

#### Other Studies

The Mississippi project in which Extension aides were used was not the first of this type of action program. In November, 1964, home economists in four Alabama counties began working with two part-time aides in a pilot project designed to develop and test methods and materials for use in an educational program for young homemakers

living in low-income rural areas. Earlier, in 1962, the Milwaukee County Extension Service, cooperating with the Department of Public Welfare, established a pilot training program for 50 relief recipients to serve as "Home Management Aides." The Extension Service and the Housing Authority in Wilmington, Delaware cooperated in setting up a training course for "homemaking teachers" in 1965. The trainees were nonprofessional housing project residents.

This trend toward the use of nonprofessionals has become evident in different organizations. Mary Dublin Keyserling, Director of Women's Bureau, U. S. Department of Labor, stated that "one of the important developments we can anticipate in years ahead will be the more intensive analysis of how the nonprofessional aspects of many professional jobs can effectively be assumed by persons less highly trained, under adequate supervision." She suggests that this development will be especially appropriate in the fields of health, teaching, social work and home economics.

### The Mississippi Project

#### Initiation of the Program

In 1966 the Mississippi Cooperative Extension Service received special funds from the Federal Extension Service to conduct a pilot project in Community Resource Development. One facet of the project was the use of aides to help extend Extension educational programs to the "hard to reach" or disadvantaged.

The aide program was initiated in one county and shortly thereafter spread to six other counties, involving a total of 26 aides. Aides were selected from the target audience by county Extension staffs.

### The Aides

Although selection guidelines were prepared for county staffs to use in identifying and recruiting aides, the degree to which they would result in the selection of "links" was not known. Information was obtained on the aides, however, which showed that those selected were "between" the target audience and the change agent system. Some of the characteristics of the aides are discussed below to show that they were, in some respects, potential systemic links.

With regard to education, it was found that aides fell between home economists and homemakers in number of years of school completed. All of the home economists had completed at least four years of college, 27 percent of the aides had completed at least 12 years of school, and less than 10 percent of the homemakers had achieved the same level of formal education as aides. Slightly more than 46 percent of the homemakers and slightly less than 20 percent of the aides had completed less than 8 years of school. A statistical test of differences between home economists, aides and homemakers who made up the target audience was significant at the .05 level.

In terms of age, differences between the three groups were not statistically significant. The aides, however, were concentrated

in the 40-54 age group while the modal age group for home economists was the less than 40 category and the modal group for homemakers was the 55 and over age category.

Aides also fell between economists and homemakers in organizational membership. Two-thirds of the homemakers claimed membership in 0-2 organizations, one-third of the aides and slightly less than one-third of the home economists were in the same category. Less than 5 percent of the homemakers claimed membership in five or more organizations while comparable figures for aides and home economists were 19 percent and 23 percent, respectively. These differences were shown to be significant at the .05 level by the chi square test.

Related to organizational membership as a participation measure and to education was a measure of participation in workshops, short courses, clinics and other types of adult education programs. On this measure also the aides were shown to be between home economists and homemakers. More than half of the home economists gave an affirmative response to the question, 38 percent of the aides answered affirmatively and 13 percent of the homemakers indicated that they had participated in such activities.

Another statistically significant difference was found when the three groups were compared on a level of living. Again, the aides fell between the home economists and the homemakers. On an index with scores ranging from 0 to 25, no home economist scored less than

16; 38 percent of the aides scored less than 16, and 86 percent of the homemakers fell below 16.

Summarizing, it became apparent when the three groups were compared on selected characteristics that Extension aides were different from both the home economists and the homemakers. Significant differences were to be expected, of course, between the aides and the economists, but whether such differences would be found between aides and homemakers was a matter to be examined.

Ideally, links between two systems different in significant aspects should have characteristics of both systems in order to facilitate communication between the systems. When the purpose of the communication is to effect behavioral change in one of the systems, the likelihood of successful communication is greater if the links "speak the language" of the system to be changed and can learn some of the language of the change-initiating system.

In the case of Extension aides used in the pilot project described in this study, it was found that they were more like home economists than homemakers in some respects and more like homemakers than home economists in other respects. As "systemic links," therefore, they appeared to qualify in at least some of the ways assumed to be important to the success of the project.

#### The Project Format

Extension aides were employed in December, 1967, and began their work in January, 1968. They were under the direct supervision of

county Extension home economists and the general supervision of the county Extension leader.

The county program generally began with a three-day training period for the Extension aides prior to their beginning work with target families. The training was performed by the home economists. Objectives of the training were to teach the aides the types of skills and information they were expected to emphasize in their work with the families and to provide them with a general orientation concerning methods and techniques. In addition to the initial training period, provision was made for monthly training sessions during the course of the program to receive reports, provide specific subject matter information and to have an opportunity to discuss operational problems.

The families with which the Extension aides worked were selected by the aides themselves after a thorough discussion with the home economist about the target audience.

After the first meetings, the aides were instructed to select 25 or more disadvantaged families in their neighborhood with whom they would work. Families were selected in the aides' neighborhood because they would be from her "social system" and because transportation would not be required. No funds were used to pay travel for aides.

The primary method employed by the Extension aides was the individual casework method. It was the aide's responsibility to initiate contact with the family and establish herself in the role of teacher and counselor.

While the Mississippi aides had the responsibility of initiating contact with families and establishing themselves as teacher-counselors, their subject matter content was prescribed by the local home economist. This does not mean that information, as requested or needed by the homemaker, was not given, but on each visit the aide had a prescribed demonstration or activity to perform. After this was completed, each individual teaching situation dictated the other information provided. Aide reports, both written and oral, were used by the home economist in selecting future demonstrations or activities. Group teaching was not attempted because evidence indicates that the audience to be reached is generally nonresponsive to group meetings.

The first demonstration or activity was usually some kind of handicraft or as the home economist said, "making something pretty." Used coffee cans were used to make colorful food storage containers. Helpful hints were given on proper storage procedures. The homemakers seemed to look forward to the aides visit to "make something pretty" as much as they did the educational information.

On a specified date the aides met again with the home economist for evaluation of the previous months work and to receive training in a new demonstration or activity. Since the aides were selected from the disadvantaged, it was often necessary to repeat the instruction to insure understanding. One approach used was to have each aide give the demonstration or activity to the other aides during the training session. This procedure would continue until each aide felt confident

to teach the families in the subject matter. Examples of subjects taught are found in Table 1.

Table 1. Examples of subjects taught by Extension aides, Mississippi Extension Service Pilot Project, 1966-68.

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Preparing a balanced meal  
Use of Powdered Milk  
Basic four food groups  
How to measure ingredients  
Roach and Waterbug control  
Safe use of pesticides  
Storage of grain foods  
How to use food stamps  
How to clean house properly  
How to make cookie mix  
Tips (on nutrition) for Teens  
Pattern alteration  
How to make your own deodorant  
Distribution of low-cost recipes  
How to wash and store woolens  
Clothing construction  
Importance of juices in the diet  
Tips for better cooking  
How to make quality biscuit mix  
First Aid  
Home beautification  
Importance of milk in the diet

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Each month the same procedures were used with a new subject. The aides would learn and then tell others (the families). The rationale for using this technique was that the aides would feel more comfortable in working with the families if they had a specific learning experience to provide. Also, since the aides had relatively low education they would be more able to understand and help in one specific area rather than attempt to be knowledgeable in several areas at once. Obviously, as the aides became more experienced and better trained they felt more comfortable in their teacher-consultant role on a number of subjects. Even so, the use of a single learning experience each month helped provide a sense of continuity and purposefulness.

A written "home visit" report was devised and aides were required to complete one on each visit.

#### Program Analysis

This report deals with the Extension aide program in one county (Chickasaw) and is, therefore, to be viewed as a preliminary evaluation. The basic research design required before and after measures of the use of certain homemaking practices, and in that respect approximated the classical experimental design. The before measure, represented as  $T_1$  (Time<sub>1</sub>), reflected the extent to which the practices were used by the homemakers before they were contacted by the aides.\* The

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\* $T_1$  measures were determined by respondent recall. The inherent limitations of recall must be considered in evaluating change.

after measure, represented as  $T_2$  (Time<sub>2</sub>), represents the extent to which the practices were being used at the end of the trial period, that is, December, 1968.

### Data Collection

Data for the study were collected during interviews with a stratified random sample of 23 homemakers representing approximately 15 percent of the total number of aide contacts. Interviews were conducted by a female Extension specialist assigned to Community Resource Development. A questionnaire was used during the interview and all responses were recorded by the interviewer.

Among the emphases of the Chickasaw County program were the following: (a) sewing--construction of new clothing, re-construction of used clothing, construction of materials for the home, and possession of a sewing kit; (b) health and sanitation--use of disinfectants and methods of storing clothing; (c) home food production--raising a garden, canning and other means of preserving food; (d) meal planning--shopping patterns. Specific questions relating to each of the above areas were covered.

### Data Analysis

This section focuses on the various teaching activities of the aides and the changes occurring in practice use between  $T_1$  and  $T_2$ . Two points need to be made at the outset. First, it must be emphasized that the target audience, the homemakers, represented the

very low income class in the state. It is almost impossible to appreciate the full meaning of this fact without intensive study of the cultural minutia of the class, but the life style that characterizes the class is a very important factor in action program planning.

The second point is that very few of the homemakers had experienced the type of relationship that exists between a change agent and a client. The significance of this fact is that program planners assumed a need to work toward establishing rapport with the target audience. To achieve this objective, it was felt that only very simple practices should be taught in the beginning. Further, it was assumed that the aides themselves would be more effective teachers with practices that were relatively simple.

The result, therefore, was that the first repertoire of practices consisted of apparently simple ones which on the surface might seem insignificant in relation to the long range objective of a change agent-client relationship. The importance of this approach, however, became evident as the program progressed; homemakers grew to look forward to the aides' visits.

Areas in which specific practices were taught are discussed below.

In the area of sewing it was found that 16 of the 23 respondents did sewing. When asked about previous sewing practices, eight of the 16 replied that they made more of the family's clothes after the aides' visits than before. Ten of the 16 indicated that they made

more articles for the home after the aides' visits than before.

Eight had made sewing boxes with the assistance of aides.

In the area of sanitation, about one-third of the homemakers credited Extension aides with introducing them to the use of D-Con to combat mice and roach infestation. Responses to other questions pertaining to sanitation reflected little change between T<sub>1</sub> and T<sub>2</sub>, but in response to general questions on things they learned, homemakers gave such replies as the following: "how to clean windows," "how to clean walls," "insect control," "how to clean pots and pans," "how to clean refrigerator," "how to clean furniture," "how to make diaper pail," and "how to make waste basket."

Only three homemakers indicated that they changed their method of storing off-season clothing as a result of instruction from aides.

In the area of home food production, which included questions about home gardens and food preservation, the homemakers' responses to interview questions indicated that very little change of practices had occurred between T<sub>1</sub> and T<sub>2</sub>.

It must be pointed out, however, that changes in practices relevant to this area require considerably more time than others and may require more investment of time and other resources than homemakers had available.

In meal planning and shopping patterns, 18 homemakers indicated that they were using recipes provided by aides. The demonstration technique was used in this area, as in other areas, and apparently had some effect.

Only five homemakers indicated that they had not changed their pattern of recipe use, and 13 (56.5 percent) indicated that they used recipes provided by aides at least once a week.

Aides also gave instructions in the use of the basic food groups in meal preparation, but this practice apparently did not "take" as well as some of the others. Fifteen stated that they used these food groups in preparing family meals, but only six could name the groups and only two indicated that they had started using them after visits by the aides.

Apparent inconsistencies in response to questions concerning basic food groups may reflect a lack of the "need to know" on the part of the homemakers about this part of meal planning and preparation.<sup>7</sup> More probable, however, is the possibility that the term "basic food groups" was not a familiar term; as a matter of fact, probing by the interviewer indicated that many of the homemakers (15 of the 23, or 65 percent) were using the four food types. Thus, when homemakers understood what was being asked, they were able to give information which reflected positive results from the teaching effort.

Activities of aides were not confined to those discussed above. They taught homemakers how to make and assisted them in making draperies, aprons, waste baskets, sewing boxes, deodorants,\* bathroom deodorizer, clothes brushes, paper flowers, pot holders, pillow cases,

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\*Since the Extension specialist began promoting use of homemade deodorant with an information and instruction sheet, more than 10,000 copies of the sheet have been distributed as a result of requests.

jewel boxes, flower boxes, cannister sets, needle and thread containers, racks for bills and other records, and vases from cans.

#### Summary and Conclusions

Were the visits of aides effective? To ask this question is to raise another--what degree of change must occur for a change agent to declare that his efforts were successful? If changes occurring in the use of certain practices between  $T_1$  and  $T_2$  are taken as the measure of effectiveness, it can be shown that aides were effective in varying degrees. For example, of the 16 homemakers who did sewing for their families and/or homes, eight reported that they were making more clothes for the family and 10 reported that they were making more articles for the home after the aides' visits. Only five homemakers reported that they had not changed their pattern of recipe use. Concerning some practices, practically no change was noted.

To use  $T_1$  and  $T_2$  measures as the only indicators of program effectiveness is to ignore or to overlook less tangible, but perhaps more important, changes. The value of establishing working relationships between the change agent and clients in the cultural milieu of this study can hardly be overemphasized, and narrative reports of the interviewer left little if any doubt that such relationships had been established. It is safe to conclude, therefore, that a "hard to reach" audience was reached. Behavioral changes did occur, and these changes, plus the establishment of working relationships, are indicative of the effectiveness of systemic links as a means of creating change.

Based on the results of this pilot effort, indications are that action agencies should consider the use of aides as a means of expanding and strengthening program efforts for the disadvantaged.

For social scientists, particularly rural sociologists, this type of program provides an unusual opportunity to fulfill one of their much-desired goals--the opportunity to apply principles of the experimental design in a laboratory setting.

#### Footnotes

1. A People and A Spirit, A Report of the Joint USDA/NASULGC Extension Study Committee (Fort Collins, Colorado, Printing and Publications Service, Colorado State University, November, 1968).
2. Saul A. Silverman, "Subprofessionals in Extension?". Journal of Cooperative Extension, VII, No. 1, (Spring 1969), pp. 43-50.
3. For detailed discussions of poverty in American society see the following: Michael Harrington, The Other America: Poverty in the United States, (New York: Macmillan Co., 1963); Robert E. Will and Harold G. Valter, Poverty in Affluence, (New York: Harcourt, Brace and World, 1965); Leon H. Kuperling, Progress or Poverty (Washington: Conference on Economic Progress, 1964); Jack E. Weller, Yesterday's People (Lexington, Ky.: University of Kentucky Press, 1966); Committee on Education and Labor, Poverty in the United States (Washington: U. S. Government Printing Office, 1964).
4. See Harrington, Ibid.
5. Whether poverty actually can be defined as a social system or subsystem is open to question, but that people who live in poverty experience a way of life that is different from the way of the affluent is apparent. Relevant to the question is the suggestion of Mollie Orshansky that perhaps the single medium most conducive to poverty and dependency is poverty itself. See Mollie Orshansky, "Children of the Poor," Social Security Bulletin, v. 26, No. 7, (July 1968), pp. 3-13.
6. Fred G. Smith, Communication and Culture, (New York: Holt, Rinehart and Winston, 1966).
7. Hazel Taylor Spitze, "Teaching Nutrition to the Neediest," Journal of Cooperative Extension, Vol. VII, No. 2 (Summer 1969).

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