STUDYING CHANGE IN SEX-ROLE DEFINITIONS VIA ATTITUDE DATA

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Sex-role definitions refer to social expectations for and beliefs about the behavior of women and men which members of a society agree upon. These definitions have both obvious and subtle influences on equality of opportunity for women. Public support for working women's rights to equal work or pay can form a "climate of opinion" within which supervisors, employers, the courts and legislators operate. Beliefs about the "natural" traits and competencies of women can influence how they are evaluated in the labor market or polity. Traditional norms which make women's career interests subordinate to their husbands' can influence women's general labor market opportunities; for example, by restricting or increasing their ability to move in order to find better employment.

Although social scientists have devised a number of ways in which to measure such social norms and beliefs [e.g., 6], sex-role attitude items employed on sample surveys provide one simple way of doing this. The study of such attitudes, viewed as measures of sex-role definitions, is of especial interest at this point in history. The recent rise of several sex-role liberation movements[1] has been much publicized in the media, provoking considerable controversy over the status and roles of women and men. However, to what extent these movements have brought about or been accompanied by change in sex-role expectations and beliefs of the general population (not just certain elites) remains unclear. Since these movements might be expected to influence publicly-expressed attitudes more quickly than they influence the structures which determine women's status attainment opportunities, a reading of these movements' impact on sex-role attitudes is obviously of interest at a time when such movements have become so highly active.

Table 1 displays some typical sex-role attitude items employed in national polls and other national surveys in the past. Such items admittedly provide what is from many points of view a superficial measurement of individuals' attitudes. In most instances, they make no attempt to measure the salience of particular opinions or beliefs, the intensity with which these are held, the extent to which they are integrated into self-conscious ideological systems, or the extent to which they dispose individuals to behave in particular ways. Such items, however, can nonetheless provide important clues about change in sex-role definitions. As the study of similar attitudes towards blacks among the white population over the past three decades suggests [7, 11], observed changes in responses to such survey items can at least indicate whether it has become unfashionable or frowned upon to display traditional prejudices and stereotypes; a change which can in turn pressage change in individuals' more deeply felt attitudes about the sexes and their social roles.

TABLE 1. Simple Percentages Agreeing with Fifteen Sex-Role Attitude Items in Four U.S. Sample Surveys. [Note: Some figures are preliminary.]

Attitude Item	1964 NORC College Seniors Study[a] Men	1964 NORC College Seniors Study[a] Women	1970 15-Year Follow-up Study[b] (Women Only)	1970 National Fertility Survey[c] (Women Only)	1973 North Carolina Study[d] (Women Only)
It is much better for everyone involved if the man is the achiever outside the home and the woman takes care of the home and family.	e	e	--	78	65
It is more important for a wife to help her husband[s career]* than to have [one]* a career herself.	76	76	81	--	68
If a wife earns more money than her husband, the marriage is headed for trouble.	43	44	--	--	39
Men should share the work around the house with women such as doing dishes, cleaning and so forth.	--	--	--	53	75
Women who do not want at least one child are being selfish.	--	--	30	--	19
A working mother can establish just as warm and secure a relationship with her children as a mother who does not work.	35	54	--	47	55

Item	1964 Study Men	1964 Study Women	1970 Follow-up (Women Only)	1970 National (Women Only)	1973 Study (Women Only)
A pre-school child is likely to suffer [emotional damage]* if his mother works.	66	60	--	71	49
A woman can live a full and happy life without marrying.	--	--	60	--	64
A man can make long range plans for his life, but a woman has to take things as they come.	39	38	--	31	--
Parents should encourage just as much independence in their daughters as in their sons.	66	82	87	--	--
Men and women should be paid the same money if they do the same work.	--	--	--	95	97
A woman should have exactly the same job opportunities as a man.	--	--	--	63	78
Women should be considered as seriously as men for jobs as executives or politicians or even President.	--	--	--	55	71
A woman's job should be kept for her when she is having a baby.	--	--	--	58	81
Women should stop expecting special privileges because of their sex.	e	e	--	--	43

*Words used only in 1964 version of the question.

[a]Based on a national probability sample of graduating arts and science college seniors of June, 1961, who were followed-up by mail questionnaire in 1964. The sample contains very few nonwhites. Most persons in the sample were age 24 in 1964.

[b]The initial sample for this study was a probability sample of high school sophomores and seniors residing in small and medium-size metropolitan areas as of 1955. These individuals were followed-up by mail questionnaire in 1970. This sample also includes very few nonwhites.

[c]Based on a national probability sample of ever-married women under age 45 in 1970. Information was collected through household interviews. This sample contains a representative proportion of blacks and other nonwhites, and is far more hetereogeneous with respect to educational attainment than are the other three samples.

[d]Based on a quota sample of women residing in three North Carolina metropolitan areas who were first married in 1962-1964 and were married only once and still married (husband present) as of 1973. Information was collected through household interviews; approximately one quarter of the sample is black. Over 90 percent of the women in this sample fall into the 25-34 age range; their educational attainment is somewhat higher than is that of the comparable age group in the 1970 Census.

[e]Item asked in 1964, but marginals currently unavailable.

As Duncan [3] has noted, the basic strategy involved in using survey measures of this type for assessing social change is replication of the items over time. In order for this replication to yield valid estimates of change, however, at least three conditions must be met. First, the replication of the items, their wording, response categories and coding, must be precise. As several studies [4, 10] have shown, even what appear to be minor variations here can seriously alter the stimulus presented to respondents and thereby change response distributions when underlying opinions are constant.

Secondly, the cross-sections on which these items are measured must be relatively general and "representative" of a society's population, and must also be well-defined enough to permit the matching of these cross-sections over time. This latter requirement is especially important when one is interested in estimating the potential effects of social movements on attitudes rather than assessing change attributable to shifts in social and economic characteristics of the population,

such as educational attainment, church attendance or labor-force participation rates.

Finally, if survey items are to be used to study sex-role definitions (not just particular sex-role attitudes or opinions), each cross-section studied must include several items, tapping a variety of aspects of these definitions. Time series for single items, such as Gallup's measuring approval of married women working [5], while of interst, tell us less about overall shifts in sex-role definitions than do series in which attitudes towards many aspects of these definitions are measured.[2]

The analyst concerned with measuring change in sex-role definitions over time can, in future years, create a time series meeting these three requirements by drawing periodic national probability samples and administering the same attitude items to each. Aside from the high costs of such an enterprise, however, there are two reasons for first seeking already collected and available data which at least in part meet these criteria. First, by analyzing attitude items from past surveys in terms of individuals' social backgrounds and behavior, we may better understand what these items generally are measuring; information that would be useful before we spend considerable resources on creating future series of national probability samples. In addition, previously collected surveys are also of interest because of the possibility that history may already have passed us by. While it seems dubious that the sex-role liberation movements have already wrought extensive and dramatic shifts in sex-role definitions, this possibility suggests it is important to assess change occurring in the late 1960's and early 1970's, as well as in the future.

The already collected and available data containing measures of sex-role attitudes of which this author is aware leave something to be desired in terms of the three requirements mentioned earlier for using such data to study change associated with social movements. However, four surveys, shown in Table 1, conform with these requirements enough to make analysis of them at least of interest, even if not definitive. Three of these four surveys employ probability samples which are national in scope (although in all three the sample universe is much more restricted than is ideally desirable). In addition, among the four there are 15 items which are replicated, in most instances precisely, these 15 covering a variety of aspects of sex-role definitions. With proper adjustment for differences among these surveys in sample universes and sample composition, then, we might obtain at least prima facie evidence concerning recent change in sex-role definitions. I will describe briefly in the remainder of this paper how this adjustment might be done.

We know from past empirical investigations of sex-role attitudes in the United States [8, 9, 13] that several individual traits, experiences and characteristics tend to correlate with sex-role attitudes. Among younger American women studied in 1970, for example, educational attainment, work experience, religiosity and race all have rather marked relationships with responses to several of the items shown in Table 1 [9]. The simple percentages agreeing with the 15 items shown in this table thus may differ across surveys for two reasons; either because there have been genuine historical changes in how people feel about the sexes and their roles, or because these samples vary on those social and economic traits which correlate with individual's sex-role attitudes. The latter possibility must be entertained in light of known differences among the four studies in their social and economic composition (see table footnotes).

Two statistical procedures are suggested for obtaining estimates across surveys which are interperable in terms of recent attitude change accompanying the rise of social movements. First, for individual characteristics which are constants in some surveys because of restrictions in sample universes, but which are variables in other surveys, a matching procedure in which analysis is limited to observations in each survey having the same range of characteristics is suggested. For example, in comparing responses from the 1964 study of college graduates with those from later surveys with more general samples, we would want to limit analysis of the latter to only those people who have at a minimum also graduated from college. Such matching does, of course, restrict the generality of the universe for which we are investigating change in sex-role attitudes, but this restriction is important if we are going to be able to interpret differences among surveys in terms of social change.

Simple case selection or matching procedures of this type are likely to remove gross compositional differences between surveys, but even after such procedures are used, further compositional differences for characteristics on which there is internal variation within each cross-section are likely to remain. Adjustment of attitude responses for these further compositional differences can be achieved in several ways, using available methods. The percentages agreeing with particular items in each matched subsample can, for example, be standardized for other social and economic variables, either directly or indirectly [1]. While an estimate of the magnitude and direction of change in attitudes over time can be made by comparing such standardized percentages, this approach normally does not yield estimates of the effects of the compositional variables on the attitudes; estimates which may be of interest if the compositional variables have themselves changed in the general population over time (as is, for example, the case for women's labor-force participation rates).

An alternative approach which both standardizes the time comparison for other social and economic traits of individuals, and which also yields direct estimates of the effects of these traits on individual's attitudes, consists of estimating a simple regression model of the following form for a sample consisting of the two matched cross-sections we are comparing:

$$A = a + b_1X_1 + b_2X_2 + \ldots + b_nX_n + d\,T + e.$$

Here, A is a dummy variable measuring whether the individual agrees with a given attitude item or

not; a is the equation intercept; the b_i are partial coefficients associated with various individual social and economic traits measured by the X_i; and d is the partial coefficient for a dummy variable, T, which measures whether an observation falls into the later cross-section or the earlier one (e is the error term).[3] The direction and magnitude of change in attitudes over time not directly attributable to individual traits is estimated by the coefficient, d. If the sex-role liberation movements are being accompanied by change in public sex-role definitions consistent with their ideological thrust, then we would expect this coefficient to have a sign indicative of more egalitarian sex-role outlooks in the later cross-sections than in the earlier ones.

How well this procedure will suffice for estimating changes over time depends not just on the quality of the original data, but also on how well the regression model used to estimate change is specified. If our understanding of the determinants of individual attitudes suggests to us that our regressions include all relevant X_i, then we will be able to interpret the coefficient, d, in terms of historical change with some confidence. If, however, we are uncertain as to what particular X_i belong in our model, or have adequate measures of only some of the X_i we think are relevant, then our ability to interpret this coefficient in terms of recent social change will be considerably lessened. Thus, as is also the case in studying change in other forms of social behavior and ideology [2], the building of a theory or causal model of sex-role attitudes and definitions is an important accompanyment to the analysis of social change. The statistical procedures involved in matching or in regression analysis will take us only as far as our substantive understanding of people's attitudes will allow.

FOOTNOTES

[1] We include here the gay and men's liberation movements, as well as the women's liberation movement.

[2] The availability of many items tapping different aspects of sex-role definitions is in part important because such items can be analyzed within each cross-section for underlying dimensions, internal consistency and other characteristics indicating the structure and nature of these definitions.

[3] Because the dependent variable in this example can take on only two values, techniques such as logit analysis [12] would be more appropriate for estimating the parameters of the model than would ordinary least squares.

REFERENCES

[1] Barclay, George W., Techniques of Population Analysis. New York: John Wiley & Sons. 1958.

[2] Duncan, Otis Dudley, "Discrimination Against Negroes," The Annals of the American Academy of Political and Social Science 371(May):85-103. 1967.

[3] _____, Toward Social Reporting: Next Steps. New York: Russell Sage Foundation. 1969.

[4] _____, Howard Schuman and Beverly Duncan, Social Change in a Metropolitan Community. New York: Seminar Press. 1973.

[5] Erskine, Hazel, "The Polls: Women's Roles," Public Opinion Quarterly 35(Summer):275-290. 1971.

[6] Goldberg, Philip, "Are Women Prejudiced Against Women?" Trans-Action 5(April):28-30. 1968.

[7] Greeley, Andrew M. and Paul B. Sheatsley, "Attitudes toward Racial Integration," Scientific American 225(December):13-19. 1971.

[8] Lipman-Blumen, Jean, "How Ideology Shapes Women's Lives," Scientific American 226(January): 34-42. 1972.

[9] Mason, Karen Oppenheim and Larry L. Bumpass, "Women's Sex-Role Attitudes in the United States, 1970," Paper Presented at the Annual Meetings of the American Sociological Association, New York. August, 1973.

[10] Payne, Stanley L., The Art of Asking Questions. Princeton: Princeton University Press. 1951.

[11] Schwartz, Mildred A., Trends in White Attitudes toward Negroes. Chicago: National Opinion Research Center. 1967.

[12] Thiel, Henri, "On the Estimation of Relationships Involving Qualitative Variables," American Journal of Sociology 76(July):103-154. 1970.

[13] Vogel, Susan R., et alia, "Maternal Employment and Perception of Sex Roles Among College Students," Developmental Psychology 3(November): 384-391. 1970.

ACKNOWLEDGEMENT

This research was supported in part by a grant from the National Institute of Mental Health (Grant No. 1R01-MH25271-01).