

SIGNIFICANT OTHERS AND THEIR EXPECTATIONS: CONCEPTS AND INSTRUMENTS TO MEASURE INTER- PERSONAL INFLUENCE ON STATUS ASPIRATIONS¹

Archibald O. Haller

Department of Rural Sociology, University of Wisconsin, Madison

Joseph Woelfel

Department of Sociology, University of Illinois, Urbana-Champaign

ABSTRACT The significant other (SO) is the most precise concept available for use in assessing interpersonal influences on orientational variables. A special set of concepts and corresponding questionnaire instruments are developed to permit (1) identification of SOs in a given behavior domain, by means of SO Elicitors, and (2) measurement of the variables by which SOs influence individual goal orientations, by means of SO Expectation Elicitors. SO Elicitors use data from the focal individual to identify specific persons who have told him about himself (definers) or have exemplified (acted as models of) a social role (or more generally, *object*) or his relationship to it. A given SO may be both definer and model. Four filter categories (meanings) of social roles were inferred from content analysis of responses to depth interviews and from previous research: intrinsic function, extrinsic function, intrinsic nature, and extrinsic nature. SOs are identified by determining a person's definers and models for filter categories for each type of object. Expectations are elicited directly from named SOs. SOs may hold expectations as to how the focal person (or others like him) would behave with respect to an object or as to how much importance he (or others like him) would attach to a type of filter category for the object. From definer SOs, expectations regarding the focal person himself are elicited; from model SOs who are not definers, expectations regarding youth in general are elicited. Concepts and instruments are tested on educational and occupational orientation data; reliability and validity of SO Elicitors and SO Expectation Elicitors have been checked, and their joint validity has been tested. Partial regression (with seven key variables controlled) of SOs' mean educational expectation levels on a youth's educational aspiration level yields $\beta = .46$, and of SOs' mean occupational expectation levels on a youth's occupational aspiration level yields $\beta = .52$. The analysis demonstrates the validity of the concepts and instruments in one domain of behavior and suggests their potential usefulness in others.

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Two main concepts are used to indicate the persons who are most influential in the life of an individual. These are the significant other (Sullivan, 1940; Cottrell and Foote, 1952; Stryker, 1964) and the reference group (Hyman and Singer, 1968). Both acknowledge that a person's behavior is influenced by others in his cognitive field while allowing for vast differences in the amount of influence of such people. The reference group concept is troublesome to the research worker interested in precise assessments of the effects of others on the person because its unit term, *group*, presumes multiperson influence, which does not always exist. It directs attention away from individual influence, whereas for many—perhaps most—interpersonal research questions, it is precisely the question of which persons exert how much influence which is of most importance. The significant other concept promises to be the more flexible for analytical purposes. Yet to date the latter concept has not been used much in research. To make it useful, the sociologist must (1) find a way to identify the particular persons who influence an individual's cognitions (attitudes, aspiration levels, values, opinions, beliefs), (2) determine the variables describing the modes of influence of the other on the person, and (3) assess the individual and/or aggregate effects of these variables on the person. Clearly, this is one of the most important tasks of an empirical science of sociology, yet research on this concept is almost nonexistent (Couch and Murray, 1964).

This article is a report on recent research attempting to attain the general objectives listed in the preceding paragraph. In research developing from insightful but nonrigorous conceptual schemes, the researcher often finds that he must modify to some extent the intent of the original theorist. In this case, Sullivan and others seem to have thought that exceptionally influential others exert their effects on the whole cognitive structure of the person. However true this may turn out to be in the long run, the researcher cannot assume it. More specifically, we report on new ways to identify significant others in one area of attitudes (status aspiration), and to measure their influence on the individual (Haller, Woelfel, and Fink, 1969). If, after many such projects have been conducted in other areas of behavior and it is learned that some others do in fact exert their influence on all the elements of a person's cognitive system, the early theorists will have been vindicated; if not, the range of applicability of the concept will have been specified.

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PROBLEM

The problem of measuring the influence of significant others is really two problems: (1) detecting the exact significant others for any person, and (2) measuring whatever it is that these others do, or are, that renders them influential. To be most useful, instruments for measuring significant other influence must be valid, reliable, economical, and practicable; they must (a) detect each significant other (SO) for any person, and (b) directly measure those characteristics or behavior of the SO by which his influence is transmitted to that person. Although several ingenious and worthwhile instruments measuring aspects of significant other influence have been devised, up until now no single instrument has been able to meet *all* these criteria (Couch and Murray, 1964; Stewart, 1955; Mulford, 1955; Slocum, 1967; Kemper, 1963; Sewell, Haller, and Portes, 1969).

This problem has been a particular handicap to research on the educational and occupational attainment process. A decade ago it was suggested that parental influence (Bordua, 1960) and peer influence (Haller and Butterworth, 1960) were major sources of educational and occupational aspirations. But the full extent and mechanisms of such interpersonal influence are not yet known, partly because of the lack of suitable measurement devices. It was to help meet this need that the Wisconsin Significant Other Battery (WISOB) was constructed.

THEORY

Although frequently (Merton, 1957:215; Rose, 1962:11, 141) attributed to Mead (1934), the term "significant other" was actually coined by Harry Stack Sullivan (1940) and has a fairly specific meaning. As Cottrell and Foote (1952:190-191) suggest, "The correspondence between Mead and Sullivan leaves off at the point of the generalized other. For Mead, whose lifespan came a generation before Sullivan's the social world was a fairly wholesome web; the others from whom one took his conception of himself were in substantial agreement. Hence the 'generalized other' of Mead's social psychology. In Sullivan's time, and ours, the community has been fractured. The generalized other has broken down into clusters of significant others."

Implicit in this use of the term "significant other" is the notion of *segmentalized* influence, with the possibility open of different significant others influencing different areas of the self-conception, or even different attitudes. Accordingly, the WISOB was designed in separate versions for significant others' influence regarding education and regarding occupation.

In addition to our initial assumption that significant others are (or may be) attitude-specific, the WISOB is based on three key assumptions about attitudes: (1) attitudes are constructed of parts, so that a signifi-

cant other may influence a component of an attitude and thus the entire attitude; (2) attitudes and the components of attitudes themselves rest on larger cognitive structures (filter categories) and consequently may be modified indirectly by modification of these larger structures; and (3) influence over attitudes, their components, or the larger structures on which they depend may be exerted either (a) by persons and/or groups who communicate norms, expectations, or other self- or object-defining information to an individual through interaction, or (b) by persons who stand as points of cognitive reference but do not interact with the subject.

In more concrete terms, by the first assumption we mean that an attitude consists of a relationship of a person to an object or a set of objects, and that the whole attitude may be changed by changing the person's definition of either himself or the object or both.

The second assumption follows the interactionist tradition and presumes that the confrontation between person and object is always mediated by some symbolic structure (Kuhn, 1964:8). In this sense, it is always a *conception* which is the object of an attitude. Forming a conception of an object, no matter how vague, is a classification procedure; one forms a conception of what an object is by relating it to other objects of his experience, by associating it with some objects and differentiating it from others. This means placing it in a category of objects thought to be in some sense the same. These categories we call "filter categories," in that they "filter" a person's perception of the objects within them. Clearly, the individual's orientation toward the category governs his orientation toward the objects within that category. In searching out significant others (SOs), then it is necessary to find not only those who directly influence the attitude in question, but also persons who have influenced the filter categories upon which the individual's definitions of self and object depend.

The third assumption reflects the distinction apparently originated by Kelley (1952:410-414), between (a) (in our words, not his) those who communicate such things as norms, expectations or definitions of behavior, objects, and self-conception, and (b) those who in some way exemplify an attitude, occupational or educational position, or the individual self. For operational purposes the distinction we make between the two is based on the medium of influence: the former (whom we call "definers") communicate, via direct interaction, definitions of ego, objects, and their appropriate interrelationships; the latter (whom we call "models") are observed by ego to have some attribute, characteristic, position, or attitude which *by example* defines ego, the object in question, or the relationship between the two.

We define a significant other (SO) for status attainment as a person, known to the focal individual, who either through direct interaction (a definer) or by example (a model) provides information which influ-

ences the focal individual's conception of himself in relation to educational or occupational roles or influences his conception of such roles (a conception of an object). We thus have four classes of SOs: definers for self, definers for object, models for self, and models for object; and each of these may function for educational roles or for occupational roles. Any person who functions in any one of these ways is an SO for the focal person. Further, any one SO may function in any or all of these modes. In the ensuing discussions we assume that the higher the number of these modes by which the SO influences ego, the greater is his significance for ego.

THE INSTRUMENTS

Our SO instruments, called the Wisconsin Significant Other Battery (WISOB, or simply the Battery) are of four classes: those designated to identify (1) educational and (2) occupational SOs (called Significant Other Elicitors or SOEs) and those designed to measure the (3) educational and (4) occupational expectations by which the SOs exert their influence on the youth (called Significant Other Expectation Elicitors or EEs).

Significant Other Elicitors (SOEs)

A satisfactory instrument to identify a person's SOs must cue him to think of the filter categories which he uses to define the object in question and himself, and then ask him about who provides information to him, either by word or example, about those categories. To cue a person to think of his filter categories implies that the filter categories are known in advance, however. The first step in developing the Battery was to find out the most common filter categories for education and occupation. Sixty-one detailed tape-recorded interviews, 31 with a selected sample of Wisconsin high school students and 30 from a sample of the significant others whose names they provided, yielded a list of several hundred words describing filter categories for the objects, education and occupation. The filter categories for each student's definition of education and occupation were separated and were classified on a common sense basis into four broad categories, presumably applicable to any social role, as follows:

1. The *intrinsic nature* of the object, or what is essentially connected to it (for example, installing pipe is essentially connected with the object "plumbing")
2. The *extrinsic nature* of an object, or the attributes which are not essential to it (living in dorms is part of the extrinsic nature of the object "college education")
3. The *intrinsic function* or the essential purpose of an object (learning is an essential function of education)

4. The *extrinsic function*, which refers to the ends that an object may serve which are nonetheless not essential to it (conferring high status is an extrinsic function of education)

Though subjectively determined, these categories are apparently quite pertinent. They summarize our own data quite completely. Further, they seem to be identical to the contents of the four factors identified by Gregory and Lionberger (1967) as the main dimensions of occupational attributes.

After several pretests using these categories, we formulated two four-page questionnaire instruments, the Occupational and the Educational Significant Other Elicitors. These elicit the names of a youth's SOs. Both are rapid-administration questionnaires for use in either individual or group testing situations, and may be administered by nontechnical personnel. Specimen questions from each section of each SOE are presented in Appendix 1.

Each of the pages contains questions about one mode of influence. Four questions, one for each of the filter categories listed above, are asked on each page. Several blanks are provided so that the youth may list a number of names under each filter category. If a person is named in answer to *any* of the filter category questions—that is, if his name appears one or more times on a page—he is considered to be an SO for that mode. The respondent is thus provided with four different opportunities to give names of his SOs fitting any one mode of SO influence. Page 1, for example, elicits the names of the definers for object. Thus, the number of pages on which an SO's name appears represents his score as an SO. The maximum score for either educational or occupational SOs is four (the total number of modes). An SO who was maximally significant for both education and occupation would have a score of eight. Normally, we would not combine such scores, but in the area of status attainment it may be useful to do so. More elaborate scoring systems were investigated, but none was shown to be markedly superior to this simple technique. Although WISOB SOEs purport to detect only *contemporaneous* significant others, repeated administrations would clearly identify those SOs who remain influential across time.

Utility

Before going into a detailed analysis of the forms, we shall offer evidence regarding the promise of this approach to the identification of SOs. Although parents, peer friends, and teachers may well turn out to be SOs (Sewell, Haller, and Portes, 1969; Sewell, Haller, and Ohlendorf, 1970), we cannot safely assume that just because a person stands in one of these role relationships with a youth he is ipso facto an SO for him, nor that all SOs have such role relationships to the youth. A

precise sample is not needed to indicate the role relationships of SOs and youth. Pretest data from one school are sufficient (Woelfel, 1968). Ninety high school seniors from Eau Claire, Wisconsin—68 girls and 22 boys—filled out a long experimental form of the occupational SOE, and the relationship of each SO to the youth was ascertained. In total, 619 SOs were identified, and these are their role relationships: Fathers are SOs for 75 percent and they constitute 11 percent of the total SOs. Mothers are SOs for 85 percent and they make up 12 percent of all SOs. Three percent of the SOs were brothers, 6 percent sisters, 13 percent other relatives, 23 percent peers of the same sex, 6 percent peers of the opposite sex, 9 percent school personnel (including counselors), 14 percent adult friends, and 5 percent friends not further specified. These data, crude as they are, clearly show the wide scattering of SOs among persons of various role relationships to the youth. Yet they also provide support for those who, for research purposes, would assess significant others' influence by measuring average expectations of those who are parents, friends, and teachers of a given youth (Sewell, Haller, and Portes, 1969; Sewell, Haller, and Ohlendorf, 1970).

Other informal data from various pretests are also pertinent. Youth have been found who have *no* SOs regarding education and occupation; this was determined by direct, taped interviews. At the opposite extreme, one girl was found who listed 56 different educational and occupational SOs. This indicates that youth vary enormously in the number of persons influencing their educational and occupational orientations. Moreover, SOs of differing role relationships to youth tend to have different levels of influence (as indicated by the number of modes which influenced the youth). SO fathers tend to have a high level of influence; SO mothers, SO peer friends, and SO school personnel tend to have a low level (Woelfel, 1968:70). Some particular individuals are SOs for many persons, as, for example, was a nun in one of our schools. In sum, there are several influence patterns of SOs: (1) individual SOs who influence only one youth but do so at a high level, (2) classes of SOs who individually may have only a little influence on a person but whose numbers may make their net influence great, and (3) individual SOs who have little influence on any one youth but have a profound net effect because they influence many.

Significant Other Expectation Elicitors (EEs)

Once the significant others for any individual have been identified, a complete description of the interpersonal influence process still requires a specification of that which the significant others transmit to that individual. This task is the one for which the WISOB Significant Other Expectation Elicitors have been designed. The EEs were developed simultaneously with the SOEs, are based on the same 61 initial

| Object of the instrument | Subject of the instrument | |
|---|---|---|
| | Specific (named) youth forms administered to definers | Youth in general ^a forms administered to models |
| Attainment levels (forms use hierarchical response categories) | Instruments measuring the significant other's expectations regarding attainment levels for specific youth | Instruments measuring the significant other's expectations regarding attainment levels for youth in general |
| | Level of occupational prestige ^b (form 04) | Level of occupational prestige (form 02) |
| | Level of formal education (form E4) | Level of formal education (form E2) |
| Filter categories for attainment levels (forms use Likert scales) | Instruments measuring the significant other's expectations regarding the importance of filter categories for specific youth | Instruments measuring the significant other's expectations regarding the importance of filter categories for youth in general |
| | Importance of occupational filters (form 05) | Importance of occupational filters (form 01) |
| | Importance of educational filters (form E5) | Importance of educational filters (form E1) |

Figure 1. Paradigm for Significant Other Expectation Elicitor instruments

Note: Two instruments not measuring expectations were included in the original battery (forms 03 and E3). They measure the importance which SO personally attributes to each of the filter categories.

^a These instruments elicit the expectation levels which the SO believes appropriate for youth. They use a role-taking approach. Forms 02 and E2 do so by asking him what he would choose if he were a youth; thus he takes the role of a class of people. Forms 01 and E1 do so by asking him about the importance of each filter to people in general; thus he takes the role of the generalized other.

^b There are two versions of this form, one worded for SOs of boys and the other for SOs of girls.

interviews and theoretical presumptions, and are meant as a complement to the SOEs. Most simply and generally, just as the SOEs operated by asking a *focal individual* whom he talked to or used as a model about filter categories, the EEs operate by asking the SOs what they expect of a particular youth (definers) or what they expect of youth in general (models). Although the instruments are very simple, the fact that slightly different versions of each have been provided (depending on the exact classification of the SO in question) makes them somewhat difficult to explain concisely. There are eight EEs, which are represented schematically in Figure 1.

Four EEs are for specific youth who are named. These forms are administered to SOs identified as definers; in all such cases the SO has directly communicated with the youth about education and/or occupa-

tion; we assume, therefore, that SO has formed expectations for this specific youth. Four are for models who are not definers; in these cases the youth has named the SO but because he fails to indicate that SO has ever *told* him anything about himself (the youth) in relation to education or occupation, we cannot even assume that SO knows the youth, and we measure the expectations SO has for youth in general. Looking at the figure's other main axis, we see that there are four instruments whose objects are attainment levels (levels of the occupational prestige hierarchy or levels of formal education), and four whose objects are filter categories for attainment (the same filter categories defined earlier). Another way of saying this is that eight instruments are generated by a $2 \times 2 \times 2$ classification. These are the following: First are two classes of *subjects of the instruments*, specific youth whose names are provided, and youth in general. The former are for youth who did and the latter are for youth who did not indicate having talked with the SO whom they identified. Second are two classes of *objects of the instruments*. These are attainment levels and filter categories for attainment levels. The former are hierarchical representations of levels of occupational prestige or levels of formal education. The latter are Likert scales of the importance of each of the four filter categories. Third and last are two classes of *objects of the expectations*, formal education and occupation. Specimen questions from each of the eight EEs are presented in Appendix 2. These are keyed to Figure 1.

Our main concern in this article is with the four instruments measuring expectations with regard to attainment rather than with those measuring the importance of filter categories. This is because we presume that an SO's levels of status expectations have a more immediate effect on the youth's levels of status aspirations than do an SO's beliefs about the importance of the filter categories.

Both occupational expectation instruments (02 and 04, Figure 1) are variants of the Occupational Aspiration Scale (OAS), an instrument whose validity and reliability have been well documented elsewhere (Haller and Miller, 1963). The OAS measures the level of the occupational prestige hierarchy that the person has taken as a goal for himself. Most present modifications consist of simple variations in the personal pronouns, which change only the person referred to; they do not upset the overall pattern of occupational prestige response alternatives. Like the OAS, the occupational expectation forms use 80 nonredundant occupational titles from a 1945 NORC study (Hodge et al., 1964). All 80 are ranked by prestige and were divided into eight groups. Each group consists of ten occupational titles which systematically span the entire prestige range. (That is, one group will include the highest, the 9th highest, the 17th highest and so on down to the 73rd highest; the

next group, the 2nd highest, the 10th highest, the 18th highest, down to the 72nd highest; and so on down to the last occupational title in the eighth group, which is the lowest ranked, the 80th from the top.) Each group is used as a set of response alternatives for a question eliciting from each SO an answer indicating a prestige level of occupational expectation. The eight questions are worded so as to elicit four types of response: realistic short-range, realistic long-range, idealistic short-range, and idealistic long-range. Each type of question is presented twice on these forms, making a total of eight questions; each of the 80 ranked occupational titles is used once and only once. For each question the ten ranked response alternatives are scored from 0 to 9. The total occupational prestige expectation score elicited from any one significant other thus lies between 0 and 72. The simple sum is used; no effort is made to provide different weights for different types of questions. These forms are thus psychometric tests with eight unweighted items.

The Occupational Expectation Elicitor for SOs who are definers is a modification of the OAS asking the significant other to list the expectations he has for the youth's (rather than his aspirations for his own) attainment. The Occupational Expectation Elicitors for SOs who are models, measuring hypothetical aspirations for the person taking the test, have been modified to apply to SOs of any age. For example, the 1963 OAS wording "when your schooling is over" is changed to "if you were just out of school." In effect, it asks the SO to take the role of youth in general, thus yielding SO's expectations for youth in general.

The Educational Expectation Elicitors are fairly simple. After naming the student, the instrument for definers asks two questions:

1. *Supposing he/she had the necessary abilities, grades, money, etc., how far would you really like to see him/her go in school?* (Check one)
2. *Considering his/her abilities, grades, financial resources, etc., how far do you actually expect him/her to go in school?* (Check one)

These questions are followed by the response alternatives: quit school, finish high school, go to trade, business, secretarial or nursing school, go to college (one that gives credit toward a bachelor's degree), get an advanced degree (master's, Ph.D., or professional such as law or medicine). The Educational Expectation Elicitor for models merely changes the wording of the question thus: "If you were a high school student, and if you had the necessary grades, money, etc. . . ." There are two such questions, to elicit realistic and idealistic expectations.

These four Expectation Elicitors, along with the two Significant Other Elicitors, form the six major instruments of the WISOB.

RELIABILITY

Significant Other Elicitors

The SOEs, unlike most instruments, are basically intended to identify a few particular persons as members of a small nominal class, the number of whose nonmembers is almost infinitely large (though additionally the SOEs do distinguish levels of significance of the others). To our knowledge, no one really knows how to test the reliability of such instruments. Add to this the fact that nothing is known about the theoretical behavior of this variable, so the temporal stability of the phenomenon (as opposed to the test) is problematic. With these qualifications in mind, we drew a sample of 292 high school seniors from Watertown, Wisconsin (1960 population about 13,000), a city with a mixed economy based on agriculture, commerce, and light industry. The educational and occupational forms of the SOEs were administered twice to the students, once at the end of September and again at the beginning of December of 1967. Actually, two forms were applied to elicit the names of SOs, the SOE and a long form (Haller et al., 1969:179-202). The latter is much more probing and exhaustive, and it was devised to check the ability of the shorter and more practicable SOE to identify all the SOs of each youth.

The Watertown sample was divided into four groups, one (SS) whose members were given the educational and occupational SOEs (or short forms) at both T_1 and T_2 ; a second (LL), whose members were given the educational and occupational long forms at both T_1 and T_2 ; a third (SL), whose members were given the SOEs at T_1 and the corresponding long forms at T_2 ; and a fourth (LS), whose members were given the long forms at T_1 and the SOEs at T_2 . Altogether, the educational and occupational SOEs yielded a total of 5,942 significant others, each of whom was assigned a score for each administration, ranging from zero to four. These scores correspond to the number of modes of influence (that is, as indicated earlier, model for object, definer for object, model for self, definer for self) exercised by each SO. There is no objective way of determining the number of people who are *not* SOs for a youth. (Should the base be all people everywhere? Or all people known to the youth?) Here, the number of non-SOs for either of our two objects (education and occupation) is simply the number of people who were not listed on the form concerning that object but who were listed on the other. Before making any calculations, we recorded all the names gleaned from both the short and the long forms of the SOEs. We did this to increase the probability of identifying every person who was in reality an SO. Regarding the correlation coefficients which we are about to present, the zero-zero cells were determined differently for each of the four subsamples, those appearing on the occupational forms but not on the educational forms which a youth had

filled out being used as zero-zero for his educational forms, and vice versa. Despite this unusual feature, it is obvious that the SS group can provide a correlation figure roughly equivalent to a stability (test-retest, r_{tt}) coefficient for each of the two (educational and occupational) SOEs. Similarly, the LL group can provide an approximation to a stability coefficient for the corresponding long forms. The SL and LS groups can provide a kind of validity coefficient; we shall return to this aspect later. The product moment correlations from T_1 to T_2 for the SS group is $r_{tt} = .51$ for the occupational SOE, and $r_{tt} = .39$ for the educational SOE. The coefficients for the corresponding long forms are $r_{tt} = .40$ and $r_{tt} = .36$, respectively.

An examination of those who receive the highest SOE scores (four) at one administration and the lowest at the other yields the following results. For occupational SO Elicitors, 15 percent of the SOs having a score of four at T_1 had zero at T_2 , and 17 percent of those scoring four at T_2 scored zero at T_1 . For educational SO Elicitors, 21 percent of the SOs having a score of four at T_1 had zero at T_2 , and 16 percent of those having a score of zero at T_1 had a score of four at T_2 .

In short, over a period of about ten weeks, our procedures show a moderate stability coefficient. When these data are seen in terms of percentages of maximum differences in level of the SO—shifts from four to zero or zero to four—we find that about one-sixth to one-fifth of the highest or lowest scores shift to the opposite score. If SO phenomena were not changing, and if those assigned scores of zero-zero were not already known to be SOs in a related area, this might indicate a notable degree of unreliability. If the phenomena are changeable—a possibility which cannot be checked here—the “true” stability might be quite high. So it comes down to this: the apparent stability of the SOEs lies at some unknown point between a moderately low and a moderately high level. In any case, the above figures for the SOEs ($r_{tt} = .51$ and $.39$) are the minimums: the “true” reliability is no doubt higher.

Significant Other Expectation Elicitors

As suggested earlier, the Expectation Elicitors are less unusual than the SOEs and therefore amenable to more usual methods of checking reliability and validity. Briefly, in the process of conducting validity tests on questionnaires gathered from 109 randomly selected high school senior students from another Wisconsin city (West Bend) and 898 of their significant others, a subsample of 100 significant others was drawn and retested by mail two months later. The results indicate substantial stability. We report the detailed data on the four most important, those measuring hierarchical attainment expectation levels: (1) Definer level of Occupational Expectation form, $r_{tt} = .91$ (Figure 1,

Form 04); (2) Definer level of Educational Expectation form, $r_{tt} = .87$ (Figure 1, Form E4); (3) Model level of Occupational Expectation form, $r_{tt} = .72$ (Figure 1, Form 02); (4) Model level of Educational Expectation form, $r_{tt} = .85$ (Figure 1, Form E2). (The test-retest coefficients for the forms measuring the importance of filter categories for attainment levels—Figure 1, Forms 05, E5, 01, and E1—range from $r_{tt} = .53$ to $r_{tt} = .80$.)

VALIDITY

There are three separate questions involved in assessing the validity of the Wisconsin Significant Other Battery: (1) the validity of the Significant Other Elicitors, (2) the validity of the Expectation Elicitors, and (3) the validity of both sets of instruments in conjunction as a measure of the field of interpersonal influence in which individuals are located.

Method for assessing the validity of the Significant Other Elicitors Basically, we use two approaches in checking the validity of the SOEs. One is a way of obtaining concurrent validity data and the other is a way of obtaining construct validity data.

Concurrent validity.—Concurrent validity tests assess the degree of agreement between two instruments designed to measure the same phenomenon. The aforementioned SL and LS subsamples from Watertown are appropriate for approximating concurrent validity coefficients. (Here again, we note the same reservations in testing concurrent validity of the SOEs, which are intended to identify a small set of persons, as we noted when discussing reliability.) In the SL sample, the SOEs were administered at T_1 and the long forms at T_2 . The long forms, being more exhaustive, are presumably the more valid. Memory may thus, in this order of administration, possibly affect the longer and more valid form but cannot affect the SOE or shorter form. When the two are reversed, as in the LS order, memory is allowed to exert whatever effects it may have on SOE scores. In any case, the memory factor was minimized by allowing several weeks to elapse between administrations. But the elapsed time also may have effects on concurrent validity coefficients. They will be reduced by the changes occurring in the phenomenon. If the concurrent validity of the SOEs is high, then the correlation coefficients for concurrent validity (r_{cv}) will be almost as large as their respective stability coefficients (r_{tt}). If $r_{cv} \cong r_{tt}$ (though $r_{cv} > r_{tt}$ of course), then we shall conclude that the concurrent validity of the SOEs is high. Comparing the LS and SL group provides an additional basis for assessing the concurrent validity of the SOEs. Remember that the long form is probably more valid than the SOE because it is more exhaustive. Assuming this is true, we can draw three conclusions: (1) If $r_{LS} > r_{SL}$ for each of the two objects, then we will

have to conclude that the validity of the SOEs is relatively low, for it will tell us that SOE yields more valid information when preceded by the long form. (2) If $r_{LS} \approx r_{SL}$ for each object, then the SOEs and the long forms are about equally valid and memory can be assumed to have a negligible effect on the scores for SOs. (3) Because the long form provides more intensive probing, and thus at least as much information as the shorter SOEs, if not more, r_{SL} cannot be greater than r_{LS} .

Construct validity.—The aim of construct validity tests is to assess the validity of an instrument by roughly determining the degree to which the results obtained by it correspond with those predicted by theory. In a sense, all validity checks could be so classified. But in practice the concept seems to imply (1) a carefully reasoned prediction of the relationship of the instrument's scores, postulated as valid, to those of other validly measured variables, and (2) a comparison of the empirical results with the earlier predictions.

Two measures of patterns of significant others were decided upon before any validation data were gathered: (1) the total number of educational and occupational significant others for any individual, and (2) an index of mean involvement with one's significant others (the average level of all his SOs regardless of their total number). Note that both of these (though based upon the SOEs, which purport to identify a certain type of person) are transformed into variables describing the focal youth rather than the SO. Note, too, that most of our hypotheses assume that either of the above SO scores for a youth, though specific to education and occupation, are general enough so that they could be highly correlated with parallel indexes of overall SO influence if indeed the latter existed. The main effect of this paradox is to make it more difficult to detect predicted relationships where in fact they exist.

Hypotheses were formulated about (a) the relationship of these two variables to each other, and (b) the relationship of each of the two to other variables. In testing validity we call attention to the fact, often ignored, that valid instruments not only will show correlations where they are predicted from a dependable theory, but also will show no correlation where none is predicted by such a theory.

As to the relationship between number of significant others and mean involvement with significant others, it would seem at first glance that these two measures should be inversely related. If the amount of time which a person has to spend with others is relatively fixed, then the larger the number of persons with whom he spends it, the less will be the average amount spent with each. We do hypothesize that if any correlation is found between these variables it will be negative, but the relationship seems more complex than that. First of all, the amount of time and attention that one devotes to interaction with others is not *absolutely* fixed; those persons with a higher social inclination may spend a greater proportion of their time interacting than do others,

and consequently they may have both a higher total number of significant others and a higher average involvement with them. Second, there are both upper and lower bounds to the measure of significant other involvement (four and one respectively). It is likely that, on the one hand, a person could invest the maximum amount of attention measurable on this instrument in several people (perhaps three or four)—that is, he could have three or four others at level four of significance. Reductions in total number of SOs beyond that level would no longer reduce the average level of influence. On the other end of the scale, a score of one is the lowest an SO can attain on the SOE instrument, and so no matter how many SOs are detected, each of them must occur at level one or higher, for otherwise his name would not appear on the instrument at all. Thus, because of these ceiling and floor effects, the curve is negative over part of its slope but not over all of it. Although we posit a negative correlation between total number of significant others and index of involvement with significant others, the relationship is probably curvilinear and thus depresses the Pearsonian r , and undoubtedly both measures are related to factors other than each other. Consequently, we suggest a slight negative or zero linear correlation between the index of significant other involvement and the number of significant others. A valid Significant Other Elicitor should detect such a relationship.

An assumption underlying this section on correlates of the two SOE-based variables is that interpersonal influence is positively related to interaction; that is, the more one exposes himself to interaction, the more he exposes himself to interpersonal influence. Consequently, two sets of variables are measured in this section: amount of interaction, and psychological disposition toward interaction. Theoretically, we can make the following hypotheses: (1) High levels of interaction increase the available pool of potential significant others and consequently should be positively correlated with a valid measure of total number of significant others. But (2) high levels of interaction could be a consequence of either a greater amount of time spent in interpersonal behavior or the same amount of time spent with more significant others. Consequently, the correlation between number of interactions and a valid index of mean significant other involvement should be near zero or slightly negative. (3) Psychological predisposition toward interpersonal activities (also called "propensity toward interaction"), insofar as it actually leads to increased interaction, should be positively related to total number of significant others. Finally, (4) a high psychological predisposition toward interaction should lead, among other things, to more total time spent with the same others. Thus, psychological predisposition toward interaction should show a moderate positive relationship to a valid index of mean involvement with significant others.

Moving to other variables, we may say that SOs are by definition important sources of influence on the psychological characteristics of individuals; therefore, differences in SO patterns should be matched by corresponding personality differences in the individual. It should be of real psychological consequence to the individual, for example, to have a great many significant others rather than a few, or to be deeply involved with interpersonal influence rather than only superficially so. We suspect that two psychological variables in particular should be affected: dogmatism and personality adjustment.

Dogmatism refers to a rather rigidly delineated set of concepts available to the individual for the categorization of reality (Rokeach, 1960). Consequently, the dogmatic individual is relatively restricted in the alternative interpretations which he can place on reality and in the alternative behaviors which he can apply or allow to be applied to social situations. If reality is socially defined, such a view ought to be at least partially a consequence of a restricted environment of interpersonal influences. Hypothetically, increments in the number of significant others to which one is exposed should increase the probability of receiving diverse interpretations of reality and consequently larger numbers of potential behaviors. We hypothesize, then, a negative relationship between total number of significant others and dogmatism. It is conceivable that an individual may be involved with a sizable number of significant others of nearly identical beliefs, however, and therefore the correlation should be low. There is no obvious reason to predict any relationship of the degree of mean involvement with SOs to dogmatism. We therefore predict a correlation around zero. With respect to personality adjustment, if the categories one uses in order to classify and deal with social situations are products largely of interpersonal influences, then low levels of interpersonal influence should lead to deficient category systems, relative inability to cope with social situations, and personality maladjustment. Consequently, we hypothesize a positive relationship between number of significant others and degree of personality adjustment. The relationship between mean significant other involvement and personality adjustment is similar. The best guess is that poorly adjusted persons would have more difficulty than others in maintaining the deep relations which would tend to give rise to a high mean SO involvement, whereas those who are better adjusted should have less such difficulty. The best prediction is for a low positive correlation. Figure 2 summarizes these predictions.

Operationalization of criterion variables.—(1) Interaction was measured by participation in extracurricular activities as indicated by a listing of the usual high school activities so that the individual could check those in which he was involved. The assumption underlying this instrument is simply that participating in organizations necessarily

| Patterns of significant others | Criterion variables | | | | | |
|--|----------------------|---------------------------------|-------------------|------------------------|------------------------------|-------------------------------------|
| | Index of interaction | Propensity toward interaction | Dogmatism | Personality adjustment | Number of significant others | Involvement with significant others |
| Number of significant others | Moderately positive | Positive | Slightly negative | Positive | 1.00 | Negative or near zero |
| Mean involvement with significant others | Zero or negative | Slightly to moderately positive | Zero | Slightly positive | Negative or near zero | 1.00 |

Figure 2. Summary of hypothesized relationships for testing validity of the Significant Other Elicitors (criterion variable by variables describing pattern of significant others)

entails interaction. (2) Propensity toward interaction is measured operationally by the Acceptance of Others scale (Berger, 1952; Shaw and Wright, 1967:432-436), a 28-item Likert-type scale. The assumption underlying its use here is that the more favorable a person's attitude toward people in general, the more likely he is to interact. (3) Dogmatism was measured by the Schulze Dogmatism Scale (Schulze, 1962), used with permission of the author. This scale is based upon the work of Rokeach (1960), and is a ten-item Guttman scale. (4) Personality adjustment was measured by the short form of the general adjustment section of a scale called the "Minnesota Survey of Opinion" (Rundquist and Sletto, 1936; Miller, 1964:151-159).

Method for testing validity of Significant Other Expectation Elicitors

The Expectation Elicitors are designed to measure the hierarchical level of attainment which the SO expects of the youth, one an educational level instrument and the other an occupational level instrument. Of these two, one (the occupational) is based directly on an instrument of known validity (Haller and Miller, 1963). In its original form (referring to a youth's aspirations for his own attainment, rather than another's expectations) it measures a variable whose behavior is fairly well known theoretically. We know, for example, that levels of occupational and educational aspiration are positively correlated to a substantial degree. Consequently, if the SO Educational Level Expectation Elicitors (ELEE) are valid, their scores should correlate fairly well with those of the SO Occupational Level Expectation Elicitors (OLEE). (In the research, SOs who were definers or were both definers and

models for a youth received definer forms; SOs who were merely models received model forms.)

Partly for validation purposes, we also constructed two other sets of educational and occupational expectation instruments. These, based on the relative value assigned by the SOs to each of the filter categories (for example, "How important do you think are the *working conditions* of a job?") do not explicitly deal with hierarchical levels, but rather with the criteria upon which such judgments rest. They are called Filter Importance Elicitors. The filter categories on which these are based are, of course, part of the cultural meanings by which people define educational and occupational roles. But because particular persons may react differently to these categories, we may speak of each as a "filter variable" when referring to an individual's own stance regarding each category. It is such stances that are measured by the Filter Importance Elicitors. Definers and models receive different specific forms of each of these (see Figure 1). (Here, too, the research provided a definer form to any SO who was a definer, whether or not he was a model, and a model form to the SOs who were models but not definers. These two ways of tapping the importance assigned by an SO to each of the educational and occupational filters will be treated as one, because they really yield one score each for each SO in relation to any one youth.) One is called the Educational Filter Importance Elicitor (EFIE) and the other, the Occupational Filter Importance Elicitor (OFIE). Because there is little latitude for choice within any given educational level, however, an increase in the valuation placed on the filter categories defining education as an object would almost necessitate an orientation to a higher level of education. We should expect a positive correlation, then, of the EFIE with valid measures of the youth's own level of educational aspiration or the SOs' levels of educational expectations for him. Within the occupational prestige hierarchy, however, there is a great deal of variation possible within any given occupational prestige level. Higher valuation placed upon the occupational filter categories for occupation would not imply higher scores on the Occupational Level Expectation Elicitor to the same degree that higher valuation of educational filter categories implies higher ELEE scores. Consequently, a valid Occupational Filter Importance Elicitor (OFIE) should not be so highly correlated with a valid measure of educational level expectations. We should predict then, that the two level measures (ELEE and OLEE) should intercorrelate highly. The two level measures versus filter importance measures (ELEE vs. EFIE) (OLEE vs. OFIE) should correlate less highly; the two filter measures (EFIE and OFIE) should correlate less still, and the two level and filter importance measures (ELEE vs. OFIE and OLEE vs. EFIE) should correlate least of all.

The net expectation levels bearing upon a given youth were assessed

by taking the mean of the expectation scores for all of his SOs for an object, one mean for each youth for each of the four expectation variables.

Consequently, the following hypotheses may be generated:

$$r_{12} > r_{13} \cong r_{23} > r_{34} > r_{24} = r_{14},$$

where X_1 = ELEE, X_2 = OLEE, X_3 = EFIE, and X_4 = OFIE, and where each such score for a youth is an average of all the respective scores held as appropriate for him (or for youth in general) by all his SOs.

Method for testing joint validity

The third validity question is the degree to which the WISOB SO Elicitors and the WISOB SO Expectation Elicitors, working together, provide a valid measure of the location of individuals within a matrix of significant other influence. Here we approach the heart of this work, for we begin now to assess the relationship between what a person wants for himself and what significant others expect him to want. Construct validation procedures are used exclusively. Current theory allows us to predict certain consequences of different SO patterns (for example, a correlation between the expectations of SOs and the attitudes of the individual) but is not really strong enough to predict the magnitude of such relationships: often immediate, contemporary significant other influences must compete against many lesser sources of interpersonal influence (which, in sum, may be great), as well as against prior significant other influence and self-reflexive acts. What this means in practical terms for our purposes is this: although we can predict that there should be positive correlations between the expectations of significant others and the attitudes of individuals, we do not know how strong they should be. Consequently, the following basic research strategy was adopted.

Without regard to the magnitude of the relationships, a valid test administered to significant others should have a higher correlation with a test administered to the students which measures the same variable than with a test which measures a different variable. The following four hypotheses may thus be generated:

$$r_{13} > r_{14}; r_{24} > r_{23}; r_{13} > r_{23}; \text{ and } r_{24} > r_{14},$$

where X_1 = student's educational aspirations, X_2 = student's occupational aspirations, X_3 = significant others' educational expectations, and X_4 = significant others' occupational expectations.

In all cases of SO variables, the average SO expectation level for the youth is calculated from data taken from all his relevant SOs (educational SOs for education, occupational SOs for occupation).

Data used in assessing validity

The data are the same questionnaire forms mentioned earlier which were administered to 109 randomly selected high school seniors in West Bend, Wisconsin, and to the 898 educational and occupational SOs elicited by their SOEs. The site was chosen because census data showed it to have a broad economic structure conducive to a full range of the stratification system, and because all the relevant youth could be tested at one time in its single high school. Besides the data already mentioned, the student's level of college educational aspiration was ascertained, together with his score on the *Occupational Aspiration Scale* (Haller and Miller, 1963), which measures the occupational prestige level that he accepts as a goal.

Results concerning the validity of the Significant Other Elicitors

Concurrent validity.—In the SL group (see earlier pages for definitions of the abbreviations), for the occupational SOs, $r_{cv} = .40$. This is our approximation to a concurrent validity coefficient for the occupational SOE. For the educational SOs, $r_{cv} = .35$. This is our approximation to a concurrent validity coefficient for the educational SOE. In the LS groups, for occupational SOs, $r_{cv} = .41$; for educational SOs, $r_{cv} = .35$. The stability coefficient for the occupational SOE is $r_{tt} = .51$ and for the occupational long form is $r_{tt} = .40$. The stability coefficient for the educational SOE is $r_{tt} = .39$ and for the educational long form is $r_{tt} = .40$. The stability coefficient for the educational SOE is $r_{tt} = .39$ and for the educational long form is $r_{tt} = .36$. When we compare the SOE r_{cv} values with their respective r_{tt} values, we find that for the educational SOE, $r_{cv} = .35$ and $r_{tt} = .39$; for the occupational SOE, $r_{cv} = .41$ and $r_{tt} = .51$. Note that the r_{cv} and r_{tt} values for each instrument do not differ greatly. We conclude that the concurrent validity of the SOEs, as measured by size of the SOEs' correlations with the more exhaustive long forms is fairly high. (For those interested, the r_{tt} values for the educational and occupational long forms are $r_{tt} = .36$ and $.40$, respectively, and the r_{cv} values for the same forms are $r_{cv} = .35$ in both cases). When we proceed to the cross-instrument tests, we find that for the educational forms the r 's are the same: forms $r_{LS} = .35$, $r_{SL} = .35$. For the occupational forms: $r_{LS} = .41$, $r_{SL} = .40$. Clearly, there is no substantial influence of the youth's recollection of names he mentioned on the long forms on his responses to the shorter SOE forms.

In general, we conclude that when the stability coefficient is taken into account, the SOEs are quite valid when compared over a period of time to a more exhaustive instrument.²

² For certain possible practical purposes, such as selecting SOs for counseling, it may be useful to combine the information from both educational and occupational SOEs. This procedure would yield a highest possible SOE score of eight. SOs who

Table 1. Observed relationships for validity of the Significant Other Elicitors (N = 109)

| Patterns of significant others | Index of interaction | Propensity toward interaction | Dogmatism | Personality adjustment | Number of significant others | Involvement with significant others |
|--|----------------------|-------------------------------|-----------|------------------------|------------------------------|-------------------------------------|
| Number of significant others | .37 | .05 | .13 | .43 | 1.00 | .01 |
| Mean involvement with significant others | .02 | .29 | .21 | .29 | .01 | 1.00 |

Note: For N = 109, correlations of $r \geq .19$ are significantly different from zero at the .05 level.

Construct validity.³—Nine hypotheses concerning the validity of the SOEs were made, each specifying the relationship of two variables yielded by the SOEs to other selected variables. Table 1 summarizes the results.

As a comparison of Table 1 and Figure 2 indicates, six of the nine hypotheses are confirmed by the data at the .05 level. Three are not: (1) the relationship between number of SOs and propensity toward interaction is essentially zero where a positive relation had been predicted; (2) the relationship between number of SOs and dogmatism is statistically not different from zero at the .05 level where a negative r

scored above four would be exerting influence on the youth's educational and occupational perspectives. Anticipating this possibility, we have calculated the various stability and concurrent validity coefficients for each individual SO's combined educational and occupational SOE score and for the comparable long form sums. The stability of the combined SOE is $r_{tt} = .50$; that of the combined long form is $r_{tt} = .42$. The concurrent validity of the combined SOE (SL group) is $r_{cv} = .43$; the corresponding coefficient for the LS group is $r_{LS} = .45$.

³ All the hypotheses in this section depend on the total number of SOs which a person has. Yet the WISOB purports to detect only educational and occupational SOs. In order to test the hypothesis that number of educational and occupational SOs was related to number of SOs in general, another instrument, the Life Style SO Indicator, was developed. This instrument purports to measure the significant others which a person has for defining his future social drinking and smoking behavior. These decisions, we reasoned, were unrelated to educational and occupational decision-making, yet pervasive enough to be faced by all members of the sample. Although originally designed as an exact parallel to the educational and occupational instruments, objections by school administrators forced the deletion of one item ("Who do you know who is of legal age who uses alcohol?"—a model-for-object item). Even so, the correlation between number of educational and occupational SOs and number of life-style SOs is $r = .740$.

had been predicted; and (3) mean involvement is positively related to dogmatism ($r = +.21$) where it had been predicted to be zero.

As the reader will recall, however, we hypothesized that propensity toward interaction could either (1) increase the number of persons with whom one interacted, and thus increase the number of SOs, or (2) increase the amount of time spent interacting with the same others, thus increasing average involvement with SOs. Because number of SOs and amount of interaction are intercorrelated ($r = +.37$) beyond the .05 level and because propensity toward interaction and involvement with SOs are intercorrelated ($r = +.29$) beyond the .05 level, the second of the two alternatives is apparently what is happening. This result, then, does not necessarily argue against the validity of the SOEs. The two negative cases involving the dogmatism test remain unexplained. In all, we see six clear confirmations, two seemingly clear negations, and one doubtful negation. On this evidence by itself, it appears that the SOEs provide a valid technique for detecting significant others.

Validity of the SOEs: Conclusion.—Our approximation to concurrent validity data, and the last presented evidence for the construct validity argues for the acceptance of the SOEs as valid techniques for identifying educational and occupational significant others. Combining this with the data by which the SOE reliability was studied, we conclude that SOs at levels three and four are worthy of serious attention and that persons not appearing as SOs are not functioning as such at least to any important degree.

Results concerning validity of the Expectation Elicitors

The validity of the expectation instruments rests on the fact that a good deal is known about the theoretical behavior of some of the variables measured by the expectation elicitors ($X_1 = \text{ELEE}$; $X_2 = \text{OLEE}$; $X_3 = \text{EFIE}$; and $X_4 = \text{OFIE}$). On the basis of that knowledge, the following relationships among the instruments were predicted: $H_1 = r_{12} > r_{13} \cong r_{23} > r_{34} > r_{24} \cong r_{14}$. The results follow: $r_{12} = .72 > r_{13} = .48 > r_{23} = .34 > r_{34} = .16 > r_{24} = .06 \cong r_{14} = .08$.

This is strong evidence of the validity of the SO Expectation Elicitors. With the trivial exception of the relation between r_{24} and r_{14} , all the orders of relationship are exactly as predicted.⁴

⁴Exact significance levels have not been calculated because it is scarcely possible to obtain two intervals between $r = .652$ and $r = 0$ leaving the 1.96 standard deviations required for significance at the .05 level between each two steps where $N = 109$, but it should be noted that these inequalities are simply shorthand ways of predicting orderings between pairs of correlation coefficients. Following Haller (1968) we use "expectation" to refer to the goal orientation level which another (SO) deems appropriate for a person (or persons like him), and "aspiration" to refer to a person's own goal orientation level for himself. The same order of correlation coefficient magnitudes should apply to the aspirations which a youth holds for himself, and in

Results concerning joint validity measures

A moderately high positive correlation between students' aspirations and SOs' expectations is sufficient to demonstrate joint validity. Here we do this and go further. A valid test administered to significant others should have a higher correlation with a test administered to the students, which measures the same variable, than with a test measuring a different variable. In this instance, that means that an individual's educational aspirations should be more highly correlated with SOs' educational expectations for him than with his occupational aspirations, and vice versa. The fact that educational and occupational aspirations are highly intercorrelated ($r = .70$) seriously affects this line of reasoning; nonetheless the results tend to support the hypothesis of validity.

The observed correlations yield the following comparisons: $r_{13} = .72 > r_{14} = .65$, $r_{24} = .67 > r_{23} = .51$, $r_{13} = .72 > r_{23} = .51$, and $r_{13} = .67 \geq r_{23} = .65$.

Obviously all the correlations are moderate to high. Moreover, all results of the comparative tests are in the direction predicted, although the first and fourth are not statistically significant at the .05 level. Even so, the statistical probability of the sample's yielding all four relationships as they are, given that there are no differences in the population, is very small, particularly because both educational and occupational aspirations and educational and occupational expectations are so highly related.

Summary of the validity tests

Three separate kinds of validity tests were employed: (1) tests of the validity of the Significant Other Elicitors, (2) tests of the validity of the Expectation Elicitors, and (3) tests of both sets of instruments operating jointly. In the first section, several tests approximating concurrent validity checks were made. Also, by way of construct validity checks, nine hypotheses were generated concerning the relationship between two variables measured by the SOEs (number of significant others and involvement with significant others) and also the relationship between these two and interaction, propensity toward interaction, dogmatism, and personality adjustment. The tests of concurrent validity upheld the hypothesis that the SOEs are valid. The fact that six of the

fact for the most part it does: $r_{12} = .65 > r_{13} = .38 \cong r_{23} = .41 > r_{34} = .11 > r_{24} = .05 \cong r_{14} = .03$, where X_1 is level of educational aspiration, X_2 is level of occupational aspiration, X_3 is level of importance which the youth attaches to educational filters, and X_4 is level of importance which the youth attaches to occupational filters. These data help validate the entire position assumed here. They also validate two new instruments (X_3 and X_4), which are the exact parallels of EFIE and OFIE, although meant for administration to the focal individual rather than to his SO. They are in fact identical to EFIE and OFIE for youth in general (see Figure 1).

Table 2. Seventh-order standardized partial regressions of educational aspiration level (X_1) on each of eight independent variables ($N = 109$)

| Independent variable | β | t | P |
|--|---------|------|------------|
| X_1 Level of educational aspiration (post-high school) | — | — | — |
| X_2 Level of occupational aspiration (Haller and Miller, 1963) | .42 | 5.07 | $\leq .05$ |
| X_3 Mean level of SO's educational expectations (WISOB) | .29 | 2.75 | $\leq .05$ |
| X_4 Mean level of SO's occupational expectations (WISOB) | -.03 | 0.28 | ns |
| X_5 Socioeconomic status (SEI Scores: Duncan, 1961) | .01 | 0.19 | ns |
| X_6 Number of extracurricular activities (checklist) | .08 | 0.96 | ns |
| X_7 Leadership activities (self report) | .21 | 2.76 | $\leq .05$ |
| X_8 Mental ability (Quick-Scoring Mental Ability Test: Beta Test, Form EM: Otis, 1954) | -.02 | 0.22 | ns |
| X_9 Grade point average (school records) | .06 | 0.71 | ns |

$$R^2_{1,23456789} = .64.$$

nine construct validity hypotheses were upheld supports the general contention that the people identified by the SOEs as SOs are in fact those who really perform this function for the youth.

In the second section, a series of validity hypotheses (in the form of orders of magnitude of correlation coefficients) was generated, based on theoretically expected relationships among the variables measured by the Expectation Elicitors. Although tests for statistical significance were not, strictly speaking, appropriate, all the relationships were in the predicted ranges and directions.

In the third section, all of the correlations between students' aspirations and SOs' expectations were shown to be high and positive. In addition, four hypotheses, based on the theoretically expected orders of magnitude of correlations between SOs' expectations and students' aspirations were generated. All were in the direction predicted and two were statistically significant, although the tests for statistical significance were confounded by the degree to which educational and occupational aspirations were correlated.

In general, then, more than 40 validity hypotheses were generated. Almost all were clearly confirmed. Only 3 or 4 appeared to provide possible disconfirmation and two of these were quite doubtful. Even though one may hold reservations about any of the tests individually,

Table 3. Seventh-order standardized partial regressions of occupational aspiration level (X_2) on each of eight independent variables ($N = 109$)

| Independent variable | β | t | P |
|---|---------|------|------------|
| X_1 Level of educational aspiration (post-high school) | .52 | 5.07 | $\leq .05$ |
| X_2 Level of occupational aspiration (Haller and Miller, 1963) | — | — | — |
| X_3 Mean level of SO's educational expectations (WISOB) | -.13 | 1.09 | ns |
| X_4 Mean level of SO's occupational expectations (WISOB) | .41 | 3.59 | $\leq .05$ |
| X_5 Socioeconomic status (SEI scores: Duncan, 1961) | .00 | 0.44 | ns |
| X_6 Number of extracurricular activities (checklist) | .05 | 0.58 | ns |
| X_7 Leadership activities (self report) | .00 | 0.00 | ns |
| X_8 Mental ability (Quick-Scoring Mental Ability Test, Form EM: Otis, 1954) | .06 | 0.71 | ns |
| X_9 Grade point average (school records) | .08 | 1.40 | ns |

$$R^2_{2,13456789} = .56.$$

the remarkably consistent pattern of the results taken together is too substantial to be ignored.

SUBSTANTIVE RESULTS

A brief summary of the results of a regression analysis based upon the data from West Bend, Wisconsin, is presented in Tables 2 and 3. These findings are merely illustrative of the utility of the instruments. We hope to present papers on substantive findings at a later date. In the former, the student's level of educational aspiration is taken as the dependent variable, and in the latter his level of occupational aspiration (Haller and Miller, 1963) is taken as the dependent variable. Each of the eight independent variables is tested in succession against the dependent variables, with the effects of the other seven partialled out. (Appendix 3 presents the zero-order correlations among the nine variables.)

Table 2 shows clearly that the three best predictors of educational aspirations are the individual's level of occupational aspiration, the educational expectations of his SOs as detected and measured by WISOB, and his perception of his leadership activities. The total explained variance, 64 percent, is substantial. Table 3 shows that educational aspirations and the occupational expectation of the youth's

SOs, as measured by WISOB, are the most influential predictors of individual occupational aspirations. As in the case of educational aspirations, the proportion of explained variance (56 percent) is high.

A parallelism in the findings of the two tables is worthy of special note. When the dependent variable is level of educational aspiration (Table 2), the two variables having the highest partial beta weights are the mean level of the significant others' educational expectations for him ($\beta = .29$) and his own level of occupational aspiration ($\beta = .42$). When the dependent variable is level of occupational aspiration (Table 3), the two variables having the highest partial beta weights are the mean level of significant others' level of occupational expectation for him ($\beta = .41$) and his own level of educational aspiration ($\beta = .52$). In short, either of these aspiration variables is affected by the *corresponding* SO expectation variable and the *other* aspiration variable. But SOs' educational expectations have no discernible effect on the youth's occupational aspirations, nor do SOs' occupational expectations notably affect his educational aspirations. Educational and occupational aspirations affect one another, but the SOs' expectations regarding one aspiration would seem to have no effect on the other.

This finding, apparently not yet suggested in the literature, implies that a change in SOs' expectations regarding an object will have substantial effects on the youth's aspirations only on that object. We might reasonably expect to change occupational aspirations by changing SOs' occupational expectations but not by changing their educational expectations, and vice versa. In turn, this suggests that models (such as that of Sewell, Haller, and Portes, 1969, and Sewell, Haller, and Ohlendorf, 1970) which use only SOs' educational expectations might be made still more effective by adding in SOs' occupational expectations.

One other finding is worthy of note. The proportion of aspiration variance explained by these variables (64 percent for educational aspiration and 56 percent for occupational aspiration) is quite substantial. One can hardly escape the conclusion that most of the reliable variance in our measures of levels of educational and occupational aspiration is probably accounted for by the eight variables brought to play upon them. Obviously, the expectations of significant others make an extremely important contribution to these figures. This evidence enhances our confidence in the WISOB battery of SO Elicitors and SO Expectational Elicitors.

CONCLUSIONS

In the light of the findings, several conclusions seem warranted: (1) The WISOB SOEs provide a valid, reliable, and efficient means of detecting the educational and occupational significant others for any

youth. (2) The WISOB EEs provide valid, reliable, and efficient measures of the expectations (and related data) of significant others relevant to aspirations of youth. (3) The WISOB as a unit validly, reliably, and economically detects and measures the patterns of contemporary educational and occupational interpersonal influence for any person. (4) Significant other influence, as detected and measured by WISOB, appears to be an important variable influencing the educational and occupational aspirations of high school students. (5) Forms designed along the lines of the WISOB might easily be generated to measure significant other influence in other areas of behavior. (6) Beyond reasonable doubt, this research provides strong support to social-psychological positions, such as those of Sullivan (1940) and Mead (1934) among others, which lay heavy stress on the role of the expectations of other persons in determining the goal orientations of the individual.

As a final note, it is obvious that in the near future research workers should begin to manipulate attitudes experimentally by means of changing SOs and/or their expectations for a person. In the areas of present concern, educational and occupational attainment, this may be necessary before practitioners can make use of the present concepts and instruments.

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Appendix 1. Specimen questions from each of the sections of the WISOB Significant Other Elicitors (SOE)

| Type of significant other | Part of attitude affected | Filter category of the specimen questions | Wording of the specimen question and its response categories ^a |
|---------------------------|---------------------------|---|--|
| <i>SOE for Occupation</i> | | | |
| Definer | Object | Intrinsic nature | WHO HAVE YOU TALKED TO about the KIND OF WORK that different jobs require? Full name, address, relationship, occupation. ^b |
| Model | Object | Extrinsic nature | Who do you know who has experienced the kind of WORKING CONDITIONS that these have? |
| Definer | Self | Intrinsic function | WHO HAVE YOU SPOKEN WITH about what kinds of PURPOSES (building, helping people, writing, etc.) are RIGHT FOR YOU? |
| Model | Self | Extrinsic function | Who do you know who is LIKE YOU ARE in being suited for jobs with the same kinds of SALARY, SOCIAL POSITION, and so forth? |
| <i>SOE for Education</i> | | | |
| Definer | Object | Intrinsic nature | Who have you talked to about the kind of WORK that one does IN SCHOOL after high school? |
| Model | Object | Extrinsic nature | WHO DO YOU KNOW who has experienced the SOCIAL life of education after high school such as meeting teachers, other students, extracurricular activities, dating, etc.? |
| Definer | Self | Intrinsic function | Who has SPOKEN TO YOU about YOURSELF as being the kind of person who is ABLE to become a SUCCESS IN LATER LIFE by going beyond high school? |
| Model | Self | Extrinsic function | Who do you know who is LIKE YOU ARE in being ABLE to become a BETTER PERSON through education beyond high school? |

^a All response categories allow six lines of blanks for answers.

^b The same response categories are used for all questions.

Appendix 2. Specimen questions from each of the eight WISOB Significant Other Expectation Elicitors (SOEE) (SOEEs yield SO's expectations)

| Form from which specimen question was taken | Wording of specimen question and its response alternatives |
|---|---|
| 04 ^a (Form 04 measures the occupational prestige level a <i>definer</i> SO expects of <i>Ego</i>) | Of the jobs listed in this question, which is the BEST ONE you are REALLY SURE HE CAN GET when his SCHOOLING IS OVER? (1) Lawyer, (2) welfare worker for a city government, (3) United States representative in Congress, (4) corporal in the army, (5) United States Supreme Court justice, (6) night watchman, (7) sociologist, (8) policeman, (9) county agricultural agent, (10) filling station attendant. |
| E4 ^a (Form E4 measures the educational level a <i>definer</i> SO expects of <i>Ego</i>). | How much education would you like to see him have if NOTHING prevented him (or her) from having AS MUCH AS HE (OR SHE) WANTED? (Check one answer.) (1) Quit school, (2) finish high school, (3) go to trade, business, secretarial, or nursing school, (4) go to college or university (one that gives credit toward a Bachelor's degree), (5) get an advanced degree (Master's, Ph.D., or professional such as law or medicine). |
| 02 (Form 02 measures the occupational prestige level a <i>model</i> SO expects of <i>youth in general</i>) | If you were JUST OUT OF SCHOOL and LOOKING FOR A JOB, which ONE of the jobs listed in this question is the BEST ONE you are REALLY SURE YOU COULD GET? (For response alternatives, see specimen question from form 04.) |
| E2 (Form E2 measures the educational level a <i>model</i> SO expects of <i>youth in general</i>) | If you were a high school student, how much education would you like to have if NOTHING prevented you from getting AS MUCH AS YOU WANTED? (For response categories, see specimen question from form E4.) |
| 05 ^a (Form 05 measures the importance a <i>definer</i> SO expects <i>Ego</i> to attach to each filter category for occupations) | How important do you think it is for him (or her) to have a job which requires a certain KIND OF WORK (such as farming, building, treating patients, typing, etc.)? (Circle one answer.) (1) Not important at all, (2) not too important, (3) somewhat important, (4) fairly important, (5) very important. ^b |
| E5 ^a (Form E5 measures the importance a <i>definer</i> SO expects <i>Ego</i> to attach to each filter category for education) | How important do you think education BEYOND high school is to his (or her) becoming a SUCCESS IN LIFE? |

Appendix 2. (Continued)

| Form from which specimen question was taken | Wording of specimen question and its response alternatives |
|---|--|
| 01 (Form 01 measures the importance a <i>model SO</i> expects <i>youth in general</i> to attach to each filter category for occupations) | How important do you think it is to have a job which requires a certain KIND OF WORK (such as farming, building, treating patients, typing, etc.)? |
| E1 (Form E1 measures the importance a <i>model SO</i> expects <i>youth in general</i> to attach each educa- tional filter) | How important do you think education BEYOND high school is for SUCCESS IN LIFE? |

^a Each of these sets of questions is preceded by the name of the youth about whom the questions are asked.

^b The same response alternatives are used for the specimen questions which follow.

Appendix 3. Zero-order correlations of variables in partial regression analyses (Tables 2 and 3)

| | X ₁ | X ₂ | X ₃ | X ₄ | X ₅ | X ₆ | X ₇ | X ₈ |
|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| X ₁ | .703 | — | — | — | — | — | — | — |
| X ₂ | .663 | .550 | — | — | — | — | — | — |
| X ₃ | .595 | .636 | .762 | — | — | — | — | — |
| X ₄ | .150 | .189 | .259 | .240 | — | — | — | — |
| X ₅ | .531 | .422 | .477 | .418 | .249 | — | — | — |
| X ₆ | .582 | .410 | .508 | .359 | .194 | .598 | — | — |
| X ₇ | .336 | .318 | .394 | .416 | .029 | .204 | .285 | — |
| X ₈ | .460 | .369 | .507 | .520 | .089 | .400 | .416 | .596 |

Note: High school seniors of West Bend, Wisconsin, (N = 109) and the significant others identified by them (X₃ and X₄ only: N = 898).
For N = 109, $P \leq .05$ if $r \geq .19$.