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ABSTRACT

This monograph on significant other influence and vocational development begins with a short historical overview of the concept of "significant other." The author then presents a summary of the ways in which the concept has been measured and reviews selected empirical studies with an emphasis on findings related to race, sex, and residence. The conceptual and methodological needs for future research are discussed. In conclusion, the author relates the relevance of these concepts and conclusions to vocational educators. (BM)

Information Series No. 196

"SIGNIFICANT OTHER" INFLUENCE AND VOCATIONAL DEVELOPMENT

written by

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FOREWORD

Researchers have long recognized that individuals do not choose careers in a vacuum. Rather, all people are influenced by the social environment around them. Social development theorists tell us that parents, teachers, friends, and others with whom one interacts influence life decisions, including decisions about occupations. The importance of the social environment in vocational choice has long been shown in the work of vocational development theorists like Donald Super and John Holland.

The concept of "significant other" influence has developed out of research, primarily in the field of sociology, which has explored the effect of influential persons such as parents, peers, and teachers on the lives of those with whom they come in contact. Such research has shown, for example, that parents strongly influence their child's aspirations and that the child's ultimate achievements are highly associated with the parents' occupational success. In light of this research, the concept of "significant other" influence has important implications for vocational administrators, teachers, planners, and especially counselors. This paper provides vocational educators with an overview of the concept of "significant other" influence, particularly as it applies to occupational choice.

"'Significant Other' Influence and Vocational Development" is one of three benchmark monographs produced during the second year of the National Center's knowledge transformation program. Papers in each topic area are intended to communicate knowledge and, where appropriate, suggest applications. This series should be of interest to all vocational educators, including administrators and policy makers, federal agency personnel, researchers, and the National Center staff.

The profession is indebted to Dr. William W. Falk for his scholarship in preparing this paper. Recognition is also due Dr. Luther B. Otto, Center for the Study of Youth Development, Boy's Town, Nebraska; Dr. J. Steven Picou, Texas A and M University; and Dr. Robert Campbell, the National Center for Research in Vocational Education, for their critical review of the manuscript. Dr. Carol P. Kowle supervised publication of the series. Mrs. Ann Kangas and Mrs. Margaret Starbuck assisted.

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INTRODUCTION

Not very long ago in the nation's history, it made sense to assume that the son of a doctor, lawyer, or other professional would attain a similar position. Likewise, daughters more often than not became homemakers like their mothers. The problem was that while sons were oriented to the labor market, daughters were not. In the past, the principal role responsibilities of parents were largely dealt with by example--one learned by doing. Boys wanted to be like "Dad"; girls, like "Mom." Since Dad was usually employed outside of the home, boys usually desired employment out of the home. Since Mom worked in the home, girls nearly always wanted to work in the home. Parents were the key persons in the child's development of both general attitudes and attitudes toward employment. Then and now, parents have been referred to by researchers as "signigicant others."

For the child, the world is experienced and understood via parents. As Berger and Luckmann (1966) put it, "For . . . children, the parentally transmitted world is not fully transparent. Since they had no part in shaping it, it confronts them as a given reality that, like nature, is opaque in places at least . . . (for the children) it becomes the world" (p. 59). Thus, it is chiefly through parents that reality becomes known and is made sensible to the child. The use of such expressions as "the world" and "reality" is indicative of the overwhelming importance that parents have in the early lives of their children. The term "significant other" is particularly relevant to parents, especially with respect to vocational development. This point will become increasingly clear when both the concept of "significant other" and the empirical work which has tested the concept are examined.

The purpose of this paper is to examine in detail the concept of "significant other" infuence. It begins with a short historical overview of the concept of "significant other." It presents a summary of the ways in which the concept has been measured and reviews selected empirical studies with an emphasis on findings relating to race, sex, and residence. It includes a discussion of areas in need of future research and relates the relevance of substantive conclusions to vocational educators.

Since individuals do not usually form vocational plans in isolation, it is important for vocational administrators, educators, and researchers to understand the vocational choice process. The results of this paper indicate that the formative process is still poorly understood due to both theoretical and methodological problems. Although schooling is only one phase of the individual's development, it is the most heavily emphasized and researched aspect of the vocational choice process. In this

paper, the need for research into other aspects of an individual's life is considered. It is suggested that more emphasis be given to a type of vocational anthropology. This could aid in the understanding of both the individual's perception of the vocational world and the effects of other individuals in shaping that perception. It is also suggested that much needs to be done to investigate the vocational choice process as a life-cycle phenomenon with different dynamics operating in different phases. In particular, more must be known about the pre-high-school years and what influences are manifested during those years. Such information is crucial for all persons engaged in counseling, curriculum writing, teaching, and administration with a vocational focus.

THE CONCEPT OF "SIGNIFICANT OTHER" INFLUENCE

As a concept, "significant other" influence is well rooted in the history of social psychology. The idea of "significant others" is a special application of the notion of "other," an important concept in social psychology. Whereas psychology is the study of the individual as an individual, and whereas sociology is the study of the group and/or group dynamics, social psychology is the study of the individual in the group. In light of this definition, much vocational psychology might be more accurately described as vocational social psychology. This is clear in the work of such vocational theorists as Super and Holland. Theorists have recognized that individuals do not formulate vocational plans in a vacuum but are influenced by the environment around them. The social environment is made up of those with whom the individual has contact or whose actions somehow influence that individual no matter how indirectly.

Past writers have believed that the individual develops a notion of identity out of interaction with others. This takes the form of the "mirror" image of the self; that is, individuals see themselves as others see them. As individuals interact with others over the course of a lifetime, they develop a number of roles which they are expected to play in different situations. Bright individuals come to recognize cues to choose a response which is right for a given situation.

Mead (1934), in discussing the development of the self, stressed the importance of interaction. This viewpoint is important primarily because it depicts individuals as having a range of choices open to them. Individuals in this case are not passive, acted upon in a linear, nonreactive sort of way. Rather, they engage their environment and interpret it in light of that engagement. In short, they interact with it.

Of course not all "others" have the same influence on the individual. Mead used the expression "generalized other" to refer to influential groups like the immediate community in which one grew up. Sullivan (1940) coined the expression "significant other" to refer to those individuals who have more direct influence. The term was especially relevant in reference to parents. The influence of parents is dramatized both by Berger and Luckmann's (1966) notion that parents present the world to the child and by the general belief among sociologists that parents are the chief socializers/acculturaters for the child. Thus, not only do parents determine what is and is not real (or what is within the child's world), but they further expose the child to the social and cultural aspects of survival in this world. Parents convey to the child their society's beliefs, folkways, and norms. And, as part of this process, they also influence the child's conception of what is and is not within reach.

A concept falling somewhere in between the "generalized" and "significant other" was developed by Hyman (1942) when he coined the term "reference group." As Kuhn (1964) has stated, "The concept is a simple one. It assumes that people make fundamental judgments and self assessments based on psychological identifications rather than on formal memberships in groups" (p. 9). In short, a reference group is a group with whom one identifies. Finding fault with the concept for research purposes, Kuhn proposed a new concept, "the orientational other," which describes four types of individuals: (1) people to whom the individual is committed; (2) people who provide one's cultural foundation (such as language concepts); (3) people who provide roles and aspects of self; (4) people who affirm or alter the individual's sense of self.

As important as Kuhn's conceptualization might be, its application is difficult for vocational researchers since individuals may be influenced by others with whom they have no direct contact. Thus, there may be others who (1) together are reference groups and who (2) are "orientational" or "significant" others as single individuals. Until 1971 no precise concept existed to describe the breadth of the empirical/theoretical possiblities. At that point, Woelfel and Haller (1971b) developed a conceptualization of the term "significant other" which is useful to vocational researchers.

Work on this notion was begun by Sewell and Haller over a twenty year period at the University of Wisconsin (see, especially, Sewell, Haller, and Portes, 1969; Haller and Portes, 1963; Otto and Haller, 1979). Sewell and Haller were interested in the process by which an individual choses levels of educational and occupational aspirations. They theprized that these levels were developed by means of such early childhood influences as family background, academic performance, IQ, and "significant other"

influence. Their work has more popularly become known as the Wisconsin Model, a social psychological model of status attainment. Their work deserves mention here because it has become the standard upon which virtually all work in sociology has been based in estimating the influence of "significant others." In summary, Sewell et al. measured "significant other" influence by getting their respondents to react to a question asking how much influence various individuals had had on their choice to attend college. Realizing that individuals were influenced in both direct and indirect ways, Woelfel and Haller (1971b) expanded the theoretical framework to express four modes of "significant other" influence, as shown in figure 1.

		Focus of Definition	
		Self	Object
The Definition	Modeler	Model for Self	Model for Object
	Definer	Definer for Self	Definer for Object

Figure 1. Four modes of significant other influence.

Source: Woelfel, J., and Haller, A.O. "Significant Others, the Self-Reflexive Act and the Attitude Formation Process." *American Sociological Review* 36 (1971): 74-87.

A key distinction in figure 1 is that the concept of "significant other" influence is multidimensional. Thus, "significant other" influence may be oriented to either the individual or an object (i.e., in our case, a vocational choice). A "modeler" is one who may have no personal contact with the individual but who serves as an example of a particular vocation. For example, I may not personally know a plumber, but the occasional plumber I see may serve as a model for both the vocational object and, in a more personal way, for me. The "definer" role is played out in a more direct way: one individual (the "definer") informs another individual about a specific vocation. In this case, there is verbal contact between the "significant other" and the individual. A person knowledgeable about plumbing explains the vocation to the uninformed person. Woelfel and Haller summarize the distinction between the two concepts, "modeler" and "definer," by noting that

individuals can be influential either through their actions in direct communication or by posing as the example which the individual observes. In our illustration, then, an individual can be significant for someone by being informative about plumbing and/or by actually being a plumber. In either case, it helps the novice become better informed.

Despite this attempt to clarify the concept, researchers' efforts to measure "significant other" and its theorized "influence" on occupational choice/vocational development leave considerable room for additional work. In general, the relationship between individuals and their "significant others" can be shown as follows:

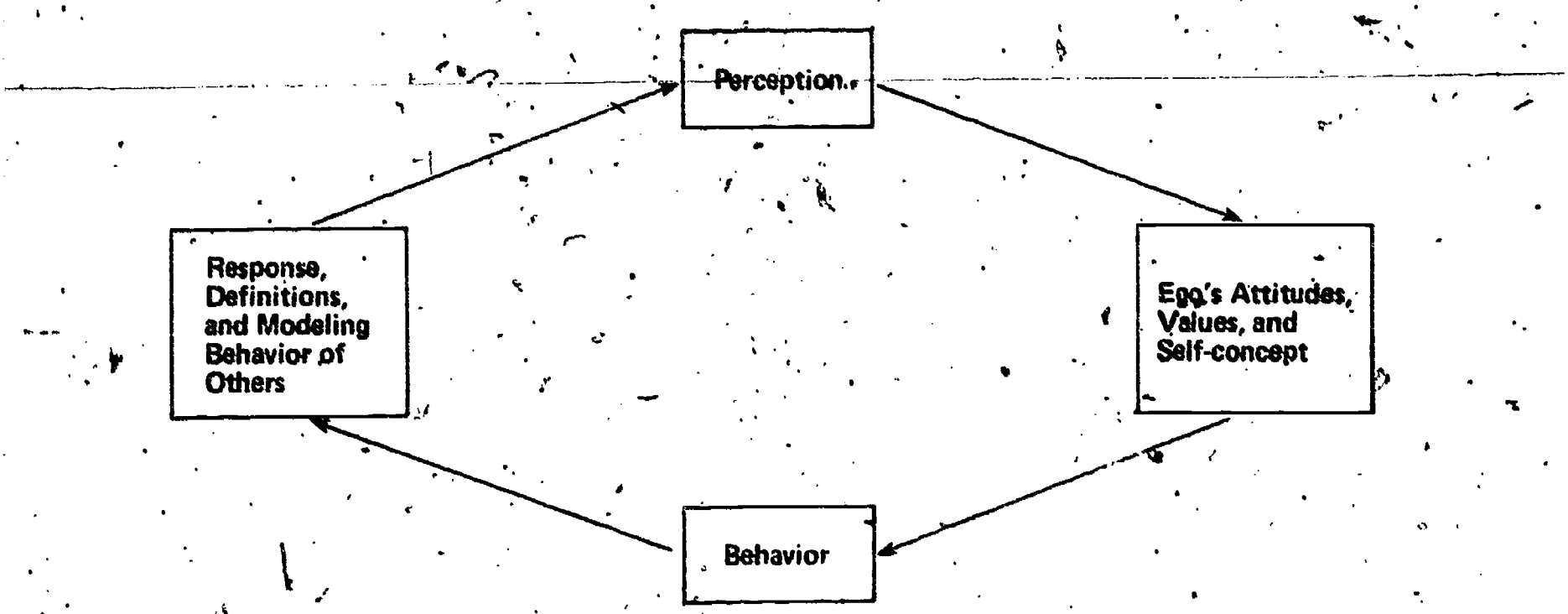

Figure 2. Schematic representation of relationship between self and another.

Individuals start with the response block since, at the earliest stages, individuals are in a sense "blank slates." Clearly, this supports the notion expressed by Mead and others that individuals are formed out of and eventually become a collection of expectations which others hold for them. These expectations are the roles which individuals learn to play; in fact, the roles are played so successfully that one can anticipate those behaviors which will be appropriate in events which have not yet occurred. For example, prior to going on a job interview, individuals can quite accurately foresee the types of questions they will be asked, thus they are able to contemplate the answers they will give. Again, the term "interaction" is important here because it is a composite of things which result in the individual's sense of self and the manner in which the individual transforms attitudes into behaviors.

In summary, individual are products of their interactions with others. Although vocational psychologists have recognized that individuals do not develop a vocational choice in a vacuum, the form of the vocational/occupational choice process has been outlined in greatest detail by sociologists. While both Super and Holland theorized the influence of others on one's choices, they failed to estimate the degree to which one is, in fact, influenced. In sociology, the Wisconsin Model, mentioned earlier, has been the main attempt to account for the influence which others have on the choice process. While sociologists have expanded the scope of "choice" theorizing to include objects besides occupations, vestiges of the developmental process theorized nearly thirty years ago by Ginzberg, Ginsburg, Axelrad, and Herma (1951) remain. In particular, this is found in the inclusion of what is termed "level of occupational aspiration."

Ginzberg et al. (1951) theorized that individuals pass through successive stages of development with their occupational choices getting increasingly realistic as they get older and more mature. The concept of "level of occupational aspiration" also posits this type of relationship. This perspective indicates that at any point in time individuals will have a range of occupational choices available to them. Some of these will be "idealistic" in the sense that they may represent a type of wishful thinking or what the individual would ideally like to do. Since they are ideal, these choices are often the type of vocational pursuit which is relatively scarce (e.g., being a physician) and relatively difficult to attain (e.g., requiring long years of education or training). Related to the "idealistic" dimension is the "realistic" dimension. This dimension is also referred to by some as "expectations" (Kuvlesky and Bealer, 1966). This dimension is realistic precisely because it is far more likely to be attained. Haller and Miller (1963) developed the concept of "leveling off" because they recognized that an individual normally compromises somewhere between "ideal" and "real" choices. In sum, it portrays an individual as saying: "What would I do if I could do anything I'd like?" (ideal), but (also asking, and perhaps with a bit of resignation), "What will I be able to do?" (realistic). Haller, Otto, Meier and Ohlendorf (1974), in fact, argue that one's occupational orientation is not so much bi-dimensional as uni-dimensional; the "real" and "ideal" elements, then, are merely part of a larger dimension--one's level of aspiration. Like the theory of Ginzberg, et al. (1951) this concept posits realism as part of the choice process.

It is necessary at this point to show the relationships theorized in the Wisconsin Model. The dependent variables could be concepts besides those portrayed (e.g., marital or fertility behavior). The inclusion of the concept of "significant other" influence makes the importance of the model immediately apparent.

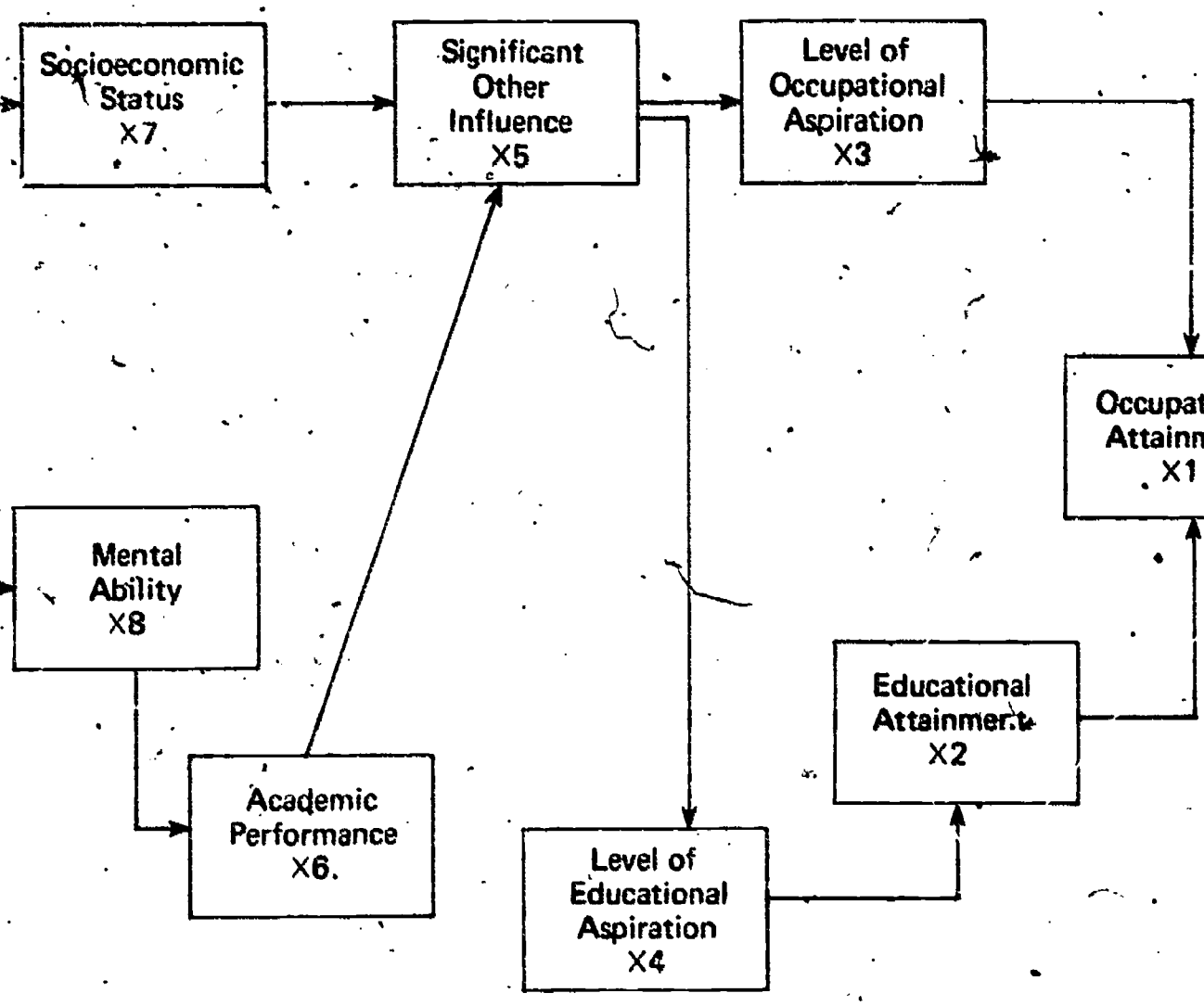

Figure 3. The Wisconsin Model of Status Attainment.

SOURCE: Sewell, W.H.; Haller, A.O.; and Portes, A. "The Educational and Early Occupational Attainment Process." *American Sociology Review* 34 (1969): 82-92.

NOTE: This is the original model which does not include some of the theorized relationships more recently found. The diagram excludes error terms which exist for each of the variables beginning with academic performance.

In the Wisconsin Model, status attainment is treated as a three-phase occurrence. Statuses are always those objects toward which individuals are oriented, some objects being more easily attained than others. In one example above, "physician" is a high prestige object and difficult to attain while another object, "laborer," is less prestigious and easier to attain. The Wisconsin Model of Status Attainment outlines the background variables (like parental socioeconomic status and intelligence) which influence the attainment of educational and occupational statuses. The background variables are mediated by intervening social psychological variables such as academic performance, influence of significant others, educational aspirations, and occupational aspirations. Researchers have historically found correlations between parents' status and the status attainment of their children. Since this country does not have a caste system, status cannot be directly transferred from parents to offspring. In the Wisconsin Model, the parent-to-child transmission is through the development of important mobility-related attitudes, especially the individual's aspirations and parental and others' expectations that the child will do well. Phrased differently, this expresses the idea that children live up to the expectations which important "others" hold for them. "Other" influence is posited as directly bearing on attitudes but only indirectly affecting behavior (i.e., attainments). Although a great body of work has resulted from the Wisconsin Model, adding various new dimensions, the model's general structure and theorized linkages have remained largely intact.

MEASUREMENT OF "SIGNIFICANT OTHER" INFLUENCE

Like many other social psychological phenomena, "significant other" influence has received far more theoretical than empirical attention. The theoretical basis has been that one's sense of self arises out of interaction with others. In addition, the type of person one becomes is theorized to be directly related to and influenced by those with whom one interacts. Thus the most common notion of the "significant other" corresponds closely to what Woelfel and Haller call "definers," individuals with whom face-to-face interaction occurs.

One begins developing vocational orientations or conceptions of them at the earliest stages of life. Young children recognize various occupational roles, as demonstrated on tests of occupational knowledge. Children also learn early about the occupational prestige system, even though they may have been told nothing about it. For example, if a six- or seven-year-old child is shown several pictures with cars ranging from small to large, with houses ranging from small to large, and with men in differing modes of attire ranging from suits to jeans and T-shirts,

that child can often demonstrate understanding about the subtlety of the occupational prestige system by matching up the large car and the large house with the man in the suit. The implication is that if bigger is really better, having a job where you wear a suit must be to your advantage.

In American society, the assumption has been made for several generations that the "bigger is better" philosophy is good. The parallel between this and the common conception of the relationship between education and prestigious occupations is that "more is better"--the more education, the better the job and the more money one will make. As Jencks et al. (1972), Bowles and Gintis (1976), and Wright and Perrone (1977) have shown, this relationship may not hold to the degree one would suppose. It is important to recognize how the common conception of good education-good job has influenced the measurement of "significant other" influence. While the following argument should not be thought of as casual, the reader will note a remarkable similarity between the conceptualization and measurement of the variable.

For the most part, with only minor variation, "significant other" influence has been conceptualized as encouragement/discouragement in terms of attending college. This was well rooted in the original Wisconsin Model and it is not too surprising that many researchers used a similar measure. For example, Alexander and Eckland (1974) asked their respondents, "To what extent have you discussed going to college with your parents or guardians?" The item was repeated for teachers and peers. Portes and Wilson (1976), Picou and Carter (1976), and DeBord, Griffin, and Clark (1977) all queried their respondents about teachers', parents', and peers' (or best friends') encouragement to attend college. Two exceptions include a recent work by Howell and Frese (1979) in which they asked, "How far do you think your parents would like you to go in school?" and an older piece by Woelfel and Haller (1971), which asked of the "significant other" more directly "How much education are you really sure he/she will get?" In general, though, it is clear that the measurement of the concept has really focused on one dimension of "influence"--that related to college attendance. This, of course, says nothing about other forms of influence, and in particular says nothing about direct influence on one's occupational plans.

EMPIRICAL ASSESSMENT OF "SIGNIFICANT OTHER" INFLUENCE

In any analysis of empirical findings from studies using "significant other" influence as a variable, comparing different studies is difficult, since such confounding influences as race, sex, and residence may be present. Table 1 shows correlation coefficients illustrating the relationships observed between educational

orientations (aspirations and expectations) and "significant other" influence (SOI). These studies are sufficiently diverse to represent both SOI and the three confounding effects mentioned above (i.e., race, sex, and residence). They cover roughly ten years of research, thus allowing for some assessment of the comparability/stability of the magnitude of relationships over time. Some general observations can be made about what these coefficients indicate.

TABLE 1. *Correlation coefficients of Significant Other Influence with educational espirations/expectations for selected studies.*

Study	Respondents	Parents	Teachers	Peers	SOI Index
Picou, et al. (1972)	Urban White				.468
	Urban Black				.152
	Rural White				.241
	Rural Black				.181
Sewell, et al. (1969)	White Males				.59
Hauser (1972)	White Males	.535	.429	.507	
Woelfel & Haller (1971)	White Males				.66
Alexander & Eckland (1974)	White and black, Males and females	.499	.256	.554	
Picou and Carter (1976)	White Males				
	Rural Farm	.242	.162	.176	
	Rural Non-Farm	.225	.115	.144	
	Village	.212	.044	.033	
	Small City	.448	.321	.275	
	Large City	.465	.303	.398	
Portes and Wilson (1976)	Black Males				.22
	White Males				.40
DeBord, Griffin and Clark (1977)	White Males	.54	.26	.32	
	Black Males	.36	.23	.25	
	White Females	.49	.25	.34	
	Black Females	.34	.15	.12	
Howell and Frese (1979)	White Males	.522			
	Black Males	.609			
	White Females	.574			
	Black Females	.602			

Table 1 includes the results of studies ranging from Sewell et al. in 1969 to Howell and Frese in 1979. While these studies did vary somewhat in terms of their dependent variables, some general discussion of their findings may prove illustrative. The table includes correlation coefficients because they help to show how much association exists between variables; thus, high correlations indicate more association than low correlations. If race is examined, the coefficients are almost always higher for whites than blacks, an observation also made recently by Picou et al. (1976). In fact, with the exception of Howell and Frese, the larger relationships for whites hold true both in the SOI indexes, cited by Picou and Carter (1976) and Portes and Wilson (1976), and in the coefficients for parents, teachers, and peers. The findings of DeBord et al. (1977) are especially illustrative on this point, since their coefficients for parents and peers are much larger for whites than blacks. The key item of interest in all of these studies is encouragement for college attendance. In the Howell and Frese study, the findings for whites and blacks are quite similar, with blacks having somewhat higher coefficients. In that study, the question for SOI was "How far do you think your parents would like you to go in school?" This is a very different conceptual item from the more restricted "college attendance" item of the other studies. Thus, the Howell and Frese study would seem to offer a more accurate means of assessing subjective indications of "other influence," since it goes beyond simple college attendance.

In defense of the other studies, however, it should be noted that their argument is as follows: given that the SOI item is specifically for college attendance, the greater the influence, the higher the educational expection. Conversely, for more vocationally-oriented jobs, the lower the SOI, the lower the educational expectation. With one exception (Alexander and Eckland, 1974), all of the studies report the greatest association with educational expectation for parents. This is particularly striking in the study by Picou and Carter (1976) which controlled for residence, race, and sex. For their white males, no matter whether they were from a rural farm area or a large city, parents consistently were assessed as being the most significant of the "significant others." This, at least, suggests that when parents discourage college attendance, educational expectations are low; when, on the other hand, they encourage college attendance, educational expectations are high. In sum, even though the items used to elicit SOI may be less than ideal, they do yield results which on the surface seem reasonable.

If we examine sex, we find few differences. In the DeBord et al. study (1977), the coefficients for males and females are quite similar--at least for the whites, where the coefficients are almost identical across parents, teachers, and peers. For blacks, the coefficients are nearly the same for parents but

quite different for teachers and peers, with males having the higher values. Of all race-sex groups, it is black girls who show the least association between their educational expectations and SOI, with especially low values for teachers and peers.

If we examine residence, it is clear in the study by Picou and Carter that for those living in rural areas or villages, little association exists between educational expectations and SOI. For those living in cities, however, the values are quite large across parents, teachers, and peers. Interestingly, the table shows that (a) parents and peers are consistently the higher values, thus indicating their effects compared to teachers, and (b) not only do parents generally have the largest values, but (importantly), when blacks and those from rural areas are excluded, the values observed are quite comparable among all of the studies. In fact, the range is only from .45 (small city in Picou and Carter) to .57 (white females in Howell and Frese); the ranges are even smaller if we also control for sex. In sum, parents exert the greatest "significant other" influence, with their effects being especially pronounced for blacks and whites, males and females, and urban versus rural.

CONCEPTUAL AND METHODOLOGICAL NEEDS FOR FUTURE RESEARCH

The concept of "significant other" and its parallel concept, "significant other" influence, are quite well understood and used in literature on vocational/occupational choice. The concepts have been dealt with in the greatest detail, from the point of view of theory, in sociology literature on symbolic interaction. Symbolic interaction refers to the fact that individuals come to understand their worlds most often through the use of words and symbols. In the case of "significant other" influence, the question is this: To what degree does one individual (or event) influence the decision of another individual with reference to some stated outcome (in this case, a vocational choice). Despite our statement that the concept significant other influence is well understood and used, there is a major conceptual problem which is clearly reflected in the literature.

When Woelfel and Haller (1971b) published their article calling for greater conceptual specification in the use of "significant other" influence and provided empirical examples of their new conceptual application, they were severely criticized (see Henry and Hummons, 1971; Land, 1971; and Woelfel and Haller's rebuttal, 1971a). The main criticism was that they did not use appropriate statistical procedures. In the rush for statistical accuracy, the critics completely violated the theory which Woelfel and Haller had delineated. One might say that this resulted in the methodological tail wagging the theoretical dog. As Woelfel

and Haller stated in their rebuttal, "Our main concern has always been the basic social psychological theory and the measuring instruments appropriate to it, rather than with a particular structural model" (p. 1103).

The Woelfel and Haller article raised serious theoretical questions about the way "significant other" influence was being conceptualized by the research community. Unfortunately, to date, the impact of their work to date has been slight. The current generation of researchers has continued to utilize items which specify only parents, teachers, and peers with little attention to the exact form these relationships take. The line of work begun by Woelfel and Haller awaits further research. This line of work could have particular relevance for vocational education since it suggests that "significant others" can be both "definers" and "modelers"; others can be significant by their conversations with a child and/or by the child observing them as they actually work at their vocation.

This conceptualization closely parallels the philosophy of vocational counselors trying to get occupational information distributed in elementary classrooms in order for the students to see a variety of work role models. For example, many preschools have parents visit their child's classroom to demonstrate and discuss their occupation. For young children, it is truly a case of a picture being worth a thousand words! And there is no reason to believe that this stops in elementary school. We learn more about the world of work throughout our lives, and its influence on adults can be either direct ("definer") or indirect ("modeler") just as it is for children in elementary or secondary school.

One need which arises out of this issue is for more intensive studies of families and schools, especially as they relate to vocational development. Only in very recent years has the concept of vocational development as a life cycle phenomenon taken hold. This is true despite arguments advanced by Super twenty-five years ago. For vocational educators, this means that there is more theoretical and applied interest in the idea of "continuing education." Equally important, there is increasing interest in vocational development in the early formative years. There is little available literature on these two aspects of the life cycle with respect to occupational/vocational interests and knowledge. A better understanding of this for the early years is of crucial theoretical concern. Grissom's (1971) statement about the child being all that he/she has been exposed to prior to school attendance is relevant here. While most researchers accept this "truism," little is known about specific processes which occur in the home setting.

In a sense, what is needed now is a kind of vocational anthropology. This anthropology would involve cataloging both overt and subtle influences on the child which eventually culminate in vocational behavior. So long as one takes an environmentalist view of behavior and intelligence (i.e., explains behavior as a learned rather than genetic thing; intelligence as developed rather then totally inherited), adult outcomes can be seen in large part as the result of previous experiences. This logic is very clear in the Wisconsin Model because of its emphasis on the fact that the individual's as well as the parents' acts influence behavior. But all the model can tell us about socialization practices and their resultant effects must be understood intuitively.

There is no one variable that focuses on socialization in and of itself. This is not surprising. Sociologists have been so keen on quantification that it has become the rule rather than the exception. In the case of studying socialization practices, one must be prepared to suspend the pell-mell rush for quantification, or at least supplement it with a more qualitative approach to the subject matter. What must be accounted for, then, are both the practices parents use in giving information to their children--whether the giving is intended or not--and the practices children use in interpreting the information given.

The need for more qualitative approaches also dictates the need for more work on socio-linguistics and/or the sociology of language. Only in very recent years have sociologists begun to get interested in the study of language as a social phenomenon. Language is taken for granted by most of us, and it never occurs to us that it, too, could be the object of study. Its importance is well emphasized by Luckmann (1975) and Berger and Luckmann (1966), who contend that it is through language that one "apprehends the world." Or, as Postman and Weingartner (1969) put it, "we 'see' with our language" (p. 91); "we are imprisoned, so to speak, in a house of language" (p. 101). It is through language, then, that an individual understands the world. It follows that the better the individual understands language, the better he/she will understand the world. For vocational researchers and administrators, this comes to mean that the better the individual's command of language, the greater the chances that he/she will (a) be familiar with a broader range of occupations and (b) know more about those occupations he/she is familiar with. Related to the work of Woelfel and Haller (1971b), this means that the individual might have been exposed to both more "definers" and "modelers." As guidance counselors know, it is especially this latter function, exposure to models, that can be facilitated in the early grades. And the importance of this over time does not lessen but may, in fact, increase.

Recent critics of schooling in America (see Bowles and Gintis, 1976) argue that what the schools really do is reproduce the stratification system, thereby making a sham of equal opportunity since the results will continue to mean that some are "more equal" partners in capitalism than others. Whether or not this is true remains open to question. (See Rehberg and Rosenthal [1978] for an argument against Bowles and Gintis.) The important thing here is that children do, in fact, get exposed to a considerable amount of occupational knowledge. While most of their knowledge is fragmented and biased, especially in the early years, they do form attitudes about the world of work. It is widely accepted that in America, working with one's hands is less prestigious than with one's head. This is something reflected in all occupational prestige scales. So long as that is the case, Bowles and Gintis have a good argument. The argument is good because it means that our children will continue to be oriented toward prestige--which supposedly will go hand-in-glove with money--as opposed to other qualities of an occupation. And since it is still true, according to the research cited earlier in this paper, that parents do much to influence their children's aspirations, and since children's ultimate achievements are highly associated with how well their parents do occupationally, then the stratification system does, to some degree, reproduce itself.

At issue for vocational educators, in part, is that their role has been to provide training for individuals to staff companies which provide services necessary to the maintenance of the economy. At the same time, however, vocational educators could also be regarded as offering younger and older people alike the opportunity (a) to develop skills for employment at a higher level of prestige and income than they presently/previously have had and (b) to develop a more positive sense of self and satisfaction. Additionally, and perhaps most importantly and realistically, both (a) and (b) would allow those persons historically disenfranchised by the system an avenue of upward mobility. This is a necessary first step in playing a more important role in the economic system.

For research purposes, there is one area of critical importance relative to the previous discussion. We know from studies of both the conceptualization and measurement of "significant other" influence that encouragement of college attendance has been the key dimension examined. Since most vocational skills are not developed in a four year college or university, it is clear that the phrasing of the item has not really been appropriate for this group.

In future quantitative studies, three changes must be made. First, instead of asking about encouragement for college attendance, the item(s) must be rephrased to inquire about any further schooling, college or otherwise. Second, more detailed

information must be collected to allow for estimates of the influence of "significant others" on vocational/occupational attitudes and behaviors as well as educational attitudes and behaviors. At present, this is assessed only indirectly by calculating the association between SOI (assessed via college encouragement) and other variables. This tells us little or nothing about specific vocational/occupational encouragement. Again referring to Woelfel and Haller, it may be that there are different forms of encouragement for different types of jobs. It may be that persons choosing vocational/technical jobs have received encouragement given to those choosing nonvocational jobs. Third, the influence of "significant others" must be studied as a life cycle phenomenon. It has been studied almost exclusively with high school students and young adults. This tells us nothing about early childhood effects as well as effects in later adulthood.

This idea has a very important implication. Vocational/technical job holders have been conceptualized by many writers as a kind of breed apart. The common euphemisms for them have been "blue collar" or "working class." One of the most widely cited studies about this group's vocational behavior was by Rodman (1963), who coined the expression "value stretch." In short, Rodman theorized that blue-collar folk "stretched" their values to approximate the more dominant success ethos in American society. But why is there necessarily any stretching of values involved? Might it not be that one group in society defines "success" differently from what some writers would have us believe the proverbial "majority" thinks? It is quite reasonable to posit that those who choose vocational/technical pursuits, thereby getting a low score on "encouragement to attend college," may do so in a highly successful vein. For them, choosing this pursuit is desirable. While this is somewhat debatable at this point, as blue collar jobs become increasingly better paid, why wouldn't they be desirable? This is even more reasonable when one considers that many of these jobs offer people relatively large amounts of autonomy; these people are, in a sense, their own bosses, especially in the more skilled jobs. If one were selling people on choosing one vocation over another, being autonomous seems like a good selling point.

Many of the studies of occupational choice were conceptually and empirically developed for white males (Falk and Cosby, 1975). This tells us nothing about the choice process for either females or blacks. In recent years, this theoretical vacuum has been somewhat filled. What needs further work, however, involves (a) the manner in which women and blacks are either encouraged or discouraged from pursuing vocational skills, and (b) a better assessment of how they perceive these kinds of jobs relative to the larger theme of societal success. Part (a) would address both the kind of encouragement women and blacks receive as well

as whether or not this encouragement is for a complete or restricted range of vocational jobs. This point is especially important since it would allow for some estimation of the degree to which even subtle discrimination still takes place, thus perpetuating the disenfranchisement of these groups. Part (b) would allow for some estimation of the framework within which these jobs are evaluated The question here would be, Are they evaluated against all other possible jobs in the society or primarily against other vocational jobs which might be available? As suggested, this could be an important distinction since a vocational job which could appear to be less than desirable might, in fact, be highly desirable; it all depends on who is doing the evaluating!

APPLICATION OF CONCEPTS TO VOCATIONAL EDUCATION

It is easy for those outside the university to see those inside as "ivory tower intellectuals," divorced from the "real" world. Theoretical and empirical literature, however, may have much to say to vocational educators and those involved in vocational programming. This literature may have much to say both for what is and is not to be found there. First, one must consider what is there.

The empirical utilization of the concept "significant other" influence reflects a bias toward influence of higher education, with little emphasis on relationship to vocational programs. This literature also demonstrates the degree to which various "others" are thought to be influential with a clear nod toward parents and peers, teachers being a kind of distant third. These results should indicate to vocational educators, as outlined above, a need for (a) a reconceptualization of SOI with a broader scope and application than is presently found and (b) a need for programs which will effectively provide parents and children (they being the source of "peers") with more favorable information about occupations requiring vocational training.

This literature does not focus on the explanation of vocational (as opposed to more general occupational) attitudes and behaviors. It may not be necessary to have a theory specifically applicable to vocational behavior. But the fact remains that this is an area which, despite a diversity of literature in the larger area of occupational choice, remains in need of further investigation. Holland, in particular, has posited that people will orient themselves to different ranges of similar occupations. It may be useful for vocational educators to document better why particular individuals choose one range of occupations over another and how occupations vary both within and between ranges. More qualitative research is needed as a way of

documenting family and school practices, particularly with respect to providing occupational information.

At the same time, quantitative research has some direct policy implications for vocational educators. In the sociology literature, researchers following the Wisconsin Model have used almost exclusively some form of regression analysis in their work. As a statistical technique, what regression analysis allows the researcher to do is to estimate the degree to which different independent variables are related to some dependent variables. This can be done for each independent variable in isolation, thereby controlling for the other variables. If researchers use the "metric coefficients," they can ask, "How much change can I effect in the dependent variable for any one unit of change in any independent variable?". For example, if the researcher regresses income on education and arrives at a metric coefficient for education of 650.75, what this says is that for every one unit of change in education, given the sample's generalizability, there will be an increase in income of $650.75. Of course, this will vary between individuals but, in general, the results are expected of the education-income relationship.

While on the surface, this type of research seems to have little relevance for vocational educators, it may have considerable relevance if the researcher knows what to look for. If a model like the Wisconsin model was run for a more restricted range of occupations (e.g., vocational only), it would allow for an estimate of the kinds of relationships which exist between selected independent variables, and, in the example, vocational behavior. If the variable was "exposure to vocational information," or for that matter any vocationally-specific item, it would allow the researcher to estimate the expected return with respect to the chosen dependent variable. Obviously, for vocational educators, this type of information would be extremely useful. In fact, this type of research-application strategizing parallels the logic of systems engineering with its flow diagrams, decision points, and so on. It says that for any outcome event, these are the kinds of returns that can be expected for the inputs made.

Most theorists, whether in occupational choice, vocational behavior, physics, or anything else, are guided not so much by practical application but, rather, more abstract and general principles about why things occur as they do. Research results wind up in an inert state unless someone with applied concerns (a) considers them and (b) asks how these might have specific application to his/her work. Thus the researcher may not really be far removed from reality, especially in much of the work cited in this paper, but the results of his/her work are far removed because no one bothers to make the connection between the two activities. Research and application are separable acts. It is the rare individual who is capable in both. Since vocational

educators often find themselves in the applied sector, the burden is on them to provide the research community with problems which they feel need investigation. Hopefully, this paper will provide some stimulus toward a better relationship between occupational/vocational researchers and the applied community for whom their research results are, at least in part, intended.

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