

ED 012 083

CG 000 244

INTERPERSONAL RELATIONSHIPS--A REVIEW. UTAH STUDIES IN  
VOCATIONAL REHABILITATION.

BY- RUSHLAU, PERRY J. JORGENSEN, GARY Q.

UTAH UNIV., SALT LAKE CITY, REG. REHAB. RES. INST.

REPORT NUMBER RRRI-BULL-1

PUB DATE JUL 66

EDRS PRICE MF-\$0.18 HC-\$3.76 94P.

DESCRIPTORS- \*REHABILITATION COUNSELING, THEORIES,  
\*RELATIONSHIP, PERSONALITY, SELF EVALUATION, COUNSELING,  
GROUP STRUCTURE, \*PERCEPTION, INTERACTION PROCESS ANALYSIS,  
BIBLIOGRAPHIES, SCHEMATIC STUDIES, RESEARCH, INTERPERSONAL  
RELATIONSHIP, MCGRATH'S SCHEMA, VOCATIONAL REHABILITATION  
ADMINISTRATION, SALT LAKE CITY

THIS MONOGRAPH IS A REVIEW OF SELECTED LITERATURE IN THE AREA OF INTERPERSONAL RELATIONSHIPS, WHICH HAS RELEVANCE TO THE CLIENT-COUNSELOR INTERACTION. THE STUDIES HAVE BEEN TREATED WITHIN THE FRAMEWORK OF MCGRATH'S DESCRIPTIVE MODEL FOR INTERPERSONAL RELATIONSHIPS. COMPARATIVE ANALYSIS OF THEORETICAL APPROACHES HAS YIELDED TWO LINES OF EVIDENCE CONCERNING CONVERGENCIES IN THE CONCEPTUALIZATION ON INTERPERSONAL RELATIONSHIPS. THE FIRST IS THE TENDENCY TO CONCENTRATE ON DYADIC OR TRIADIC RELATIONSHIPS. THE SECOND IS AGREEMENT TO AN EXTENT ON THE SIGNIFICANT PARAMETERS OF INTERPERSONAL RELATIONSHIPS. THROUGHOUT THE THEORETICAL AND EMPIRICAL STUDIES, THERE IS EVIDENCE THAT THE INTERPERSONAL RELATIONSHIPS ARE NOT MERELY A FUNCTION OF THE SIMPLE EFFECTS OF INDIVIDUAL VARIABLES. THEY ARE A FUNCTION OF THE COMPLEXLY INDEPENDENT ACTIONS OF MULTIPLE PSYCHOLOGICAL AND SOCIAL FORCES. PREDICTIVE CAPABILITIES OF THE STUDIES HAVE BEEN GREATEST WHEN THEIR DESIGNS HAVE INCORPORATED ASSUMPTIONS OF THE COMPLEX INTERDEPENDENCE OF VARIABLES. THEORETICAL PROPOSALS AND EXPERIMENTAL DATA SUGGEST DIRECTIONS FOR RESEARCH DEALING WITH THE INITIAL PHASE AND THE MAINTENANCE PHASE OF THE CLIENT-COUNSELOR RELATIONSHIP. A GENERAL CONCLUSION IS THAT THE COUNSELOR MUST BE AWARE OF HIMSELF NOT ONLY AS A PERCEIVER, BUT AS AN OBJECT OF PERCEPTION BY OTHERS AS WELL AS BY HIMSELF. (AO)

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE  
PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS  
STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION  
POSITION OR POLICY. U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE

OFFICE OF EDUCATION  
UTAH STUDIES IN VOCATIONAL REHABILITATION

# INTERPERSONAL RELATIONSHIPS: A REVIEW

ED012083

Perry J. Rushlau  
and  
Gary Q. Jorgensen

REGIONAL REHABILITATION RESEARCH INSTITUTE

Bulletin No. 1

University of Utah

Salt Lake City, Utah 84112

July, 1966

CG 000 244

## PREFACE

In the latter half of 1963 the Graduate School of Social Work and the Department of Educational Psychology, both of the University of Utah, submitted a proposal to the Vocational Rehabilitation Administration for the purpose of establishing a Regional Rehabilitation Research Institute. The proposed institute was to serve the states in Region VIII; specifically, Colorado, Idaho, Montana, Utah, and Wyoming; and was to be located in Salt Lake City on the campus of the University of Utah. The Institute became operational on January 1, 1964, with a staff consisting of a director, a research director, a research associate, a full-time secretary, and a part-time secretary. Members of the University of Utah Faculty, interested in rehabilitation, are consultants to the Institute. During the summer quarter the administrative director of the Institute and three graduate students are employed full-time in order to expedite the core research project and other work of the Institute.

### *The Purpose of the Institute*

The basic purpose of the Regional Rehabilitation Research Institute at the University of Utah is to conduct research which will add to the knowledge of rehabilitation in a specific rural region, Region VIII. It is hoped that this research might have more general application to other parts of the nation.

### *Aims of the Institute*

There are three general aims of the Utah Regional Rehabilitation Research Institute. The first of these is to conduct a core research program in interpersonal relationships in the rehabilitation process in a rural area which might ultimately improve rehabilitation counseling practices.

A second general aim of the Institute is to provide research consulting services to the rehabilitation agencies in Region VIII in order to: (a) assist the Region VIII Office in identifying and coordinating research needs in the five states; (b) assist the state directors in identifying research needs of their respective agencies; (c) contribute toward the maximum utilization of research design and techniques in the investigation of agency problems; and (d) provide in Region VIII a pool of research experts who are readily available for consultation on research planning.

The third aim is to engage in operational research when requested by the Region VIII Office after clearance with the VRA Central Office.

### ***Core Research: Interpersonal Relationships in a Rural Region***

It is the belief of the Institute staff that one of the most significant variables in successful rehabilitation is the character and quality of the interpersonal relationships between and among the participants in the rehabilitation process.

The variable of interpersonal relationships has a number of aspects. Among those which can be readily labeled are the relationships between the client and his counselor, the client and his family, and the client and his community. An additional set includes the relationship between the counselor and the client's family as well as that between the counselor and the client's community. These several aspects may be studied in successive phases of the core research program. The first phase is devoted to the study of interaction patterns which develop between the client and his counselor. These patterns will be related to rehabilitation outcomes.

Experimentation is in progress validating instruments and investigating relationships between the vocational counselor and his clients in Utah. Plans are in process to study the interpersonal relationships between the itinerant counselor and his client, and the client's family in the other states in the region with particular emphasis on the rural client.

It is hoped to achieve through these investigations the formulation of a sound philosophy and a set of principles which can serve as a guide in the development of policy and practice in effective interpersonal relationships in rural rehabilitation.

One of the first tasks of the Institute staff was to review the literature pertinent to interpersonal relations so as to provide a foundation and framework which would lead to a better understanding of interpersonal relationships in the rehabilitation process. This, the first of a series of monographs, deals with a review of the general literature on interpersonal relations. It will be followed by a monograph which will be concerned with a review of the literature on interpersonal relations in counseling and in rehabilitation counseling. A third monograph will attempt to summarize and synthesize the findings of the two previous monographs and generate testable hypotheses for future research. It will be followed by other monographs dealing with the validation of instruments used in examining interpersonal relations and core research findings.

### ***Acknowledgments***

The authors of this monograph are indebted first of all to the Vocational Rehabilitation Administration of the Department of Health, Education, and Welfare for their assistance, both financial and critical, in

the publication of this monograph. The authors also wish to express their thanks to Dr. Reed Merrill, Chairman of the Department of Educational Psychology, and Dr. Rex Skidmore, Dean of the Graduate School of Social Work, for their administrative assistance to the Institute and also for their critical reading of the many drafts of the review.

Dr. Cecil O. Samuelson, Dr. Frank Magleby, Mr. William Farley, and Mr. William Clayton, consultants to the Institute, have done yeoman service in the reading of the manuscript and the giving of helpful suggestions. Special mention must be given to Dr. Joseph P. McGrath whose article, "A Descriptive Model for the Study of Interpersonal Relations in Small Groups," served as the keystone of this monograph. In this regard we are indebted to the *Journal of Psychological Studies* for permitting us to quote from and cite this article. The works of Dr. Theodore M. Newcomb, Dr. Dorwin Cartwright, Dr. Ralph M. Stogdill, Dr. Robert R. Sears, Dr. John R. P. French, Dr. Bertram Raven, Dr. Edgar H. Schein, and Dr. Bernard M. Bass also helped to provide the framework of this review of literature and as such their thinking is both cited and appreciated. The American Sociological Association; The American Psychological Association; *The Journal of Psychological Studies*; Harcourt, Brace and World, Inc.; Oxford University Press; The Research Center for Group Dynamics of the Institute of Social Relations at the University of Michigan; and Harper and Row, Publishers, Inc., all graciously consented to let us quote from their publications.

The following research assistants, Mr. James Anderson, Mr. Edmund Tucker, and Mrs. Lyne Hunter, helped by abstracting some journal articles. Last, but not least, the work of Mrs. Janet Fullmer, Miss Jill Johnston, and Miss Jennifer Ralphs, the secretaries, must be cited. They not only helped type manuscripts but also checked reference sources and served as proofreaders. To them is expressed special thanks.

WILLIAM M. MCPHEE  
*Director*

## TABLE OF CONTENTS

	<i>Page</i>
PREFACE .....	iii
 <i>Chapter</i>	
I. INTRODUCTION .....	1
THE IMPORTANCE OF INTERPERSONAL RELATIONSHIPS IN THE REHABILITATION PROCESS .....	1
A SCHEMA FOR A REVIEW OF STUDIES IN INTERPERSONAL RELATIONSHIPS .....	2
Definitions of Interpersonal Relationships .....	2
Some Theories and Concepts of Interpersonal Relationships .....	3
OUTLINE OF THE REVIEW .....	6
 II. THE ATTRACTION PARAMETER .....	 7
THEORIES OF ATTRACTION .....	7
SIMILARITY OF ATTITUDES .....	11
Implications of Studies of Similarity of Attitudes for the Counseling Process .....	16
PERCEIVED SIMILARITY .....	16
Implications of Studies of Perceived Similarity for the Counseling Process .....	22
SIMILARITY OF PERSONALITY .....	23
Implications of Studies of Similarity of Personality for the Counseling Process .....	24
INFLUENCE .....	25
Implications of Studies of Influence for the Counseling Process .....	26
SUMMARY .....	27
Implications of Studies of Attraction for the Counseling Process .....	28

## TABLE OF CONTENTS (continued)

<i>Chapter</i>	<i>Page</i>
III. THE INFLUENCE PARAMETER .....	29
THEORIES OF INFLUENCE .....	30
STATUS .....	32
Implications of Studies of Status for the Counseling Process .....	34
SIMILARITY .....	35
Implications of Studies of Similarity for the Counseling Process .....	38
CONFORMITY .....	39
Implications of Studies of Conformity for the Counseling Process .....	41
CHANGE .....	42
Implications of Studies of Change for the Counseling Process .....	44
PERSONALITY CHARACTERISTICS .....	44
Implications of Studies of Personality Characteristics for the Counseling Process .....	45
SELF-EVALUATION .....	46
Implications of Studies of Self-Evaluation for the Counseling Process .....	48
SUMMARY .....	48
Implications of Studies of Influence for the Counseling Process .....	49
IV. THE INTERACTION PARAMETER .....	51
THEORIES OF INTERACTION .....	51
SIMILARITY .....	58
Implications of Studies of Similarity for the Counseling Process .....	59

## TABLE OF CONTENTS (continued)

<i>Chapter</i>	<i>Page</i>
<b>GROUP STRUCTURE</b> .....	59
Implications of Studies of Group Structure for the Counseling Process .....	61
<b>PERSONALITY CHARACTERISTICS</b> .....	62
Implications of Studies of Personality Characteristics for the Counseling Process .....	68
<b>ATTRACTION</b> .....	68
<b>INFLUENCE</b> .....	69
Implications of Studies of Influence for the Counseling Process .....	70
<b>SUMMARY</b> .....	70
Implications of Studies of Interaction for the Counseling Process .....	73
<b>V. POSTSCRIPT</b> .....	75
<b>CONCLUSIONS</b> .....	75
<b>IMPLICATIONS FOR RESEARCH ON INTERPERSONAL RELATIONSHIPS IN THE REHABILITATION COUNSELING PROCESS</b> .....	76
Initial Phase .....	76
Maintenance Phase .....	77
<b>LIST OF REFERENCES</b> .....	79



## I

### INTRODUCTION

The rehabilitation process is affected by a great number of variables, many of which are specific to the client himself. Each client enters into the rehabilitation situation with unique prior social, emotional, and cognitive learnings. On the basis of these experiences and other factors, the client has effected a level of adjustment and has adopted a value process or value orientation. This value process may vary from an implicitly held set of beliefs to an explicit statement concerning his philosophy of life. All of these facets of the client's experience and existence may be subsumed under a term such as life space.

#### THE IMPORTANCE OF INTERPERSONAL RELATIONSHIPS IN THE REHABILITATION PROCESS

Variables beyond those which constitute the personality structure of the client have a significant bearing on the rehabilitation process. It is clear that during the rehabilitation process the client must deal with a number of people who bring equally complex personality organizations to the rehabilitation situation. Major emphasis is commonly placed upon factors such as the nature of the client's disability, his age, sex, or marital status, while the attitudes and behaviors of these other individuals are often neglected or are assumed to have negligible influence on the rehabilitation process. But the impingement of these other life spaces upon that of the client in rehabilitation should not be ignored and is a challenging matter for empirical investigation.

The differing characteristics of individuals and groups have a variable effect upon the client's performance in any given interpersonal encounter. Among those individuals with whom the client will interact in the course of the rehabilitation experience are his counselor, various consulting specialists, teachers, training supervisors, his family, members of

his peer group, and other members of the community to which he belongs. Since each of these individuals and groups has a unique structure at the outset, and each has potential for change, the only certainty for all of these situations is that there will be a variety of face-to-face interactions. Consequently, the study of interpersonal relationships, whether approached simply in terms of dyadic interactions such as those between client and counselor or more complexly in terms of the manifold interplay of everyday human involvements, offers a logical avenue to deeper understanding of the rehabilitation process.

## A SCHEMA FOR A REVIEW OF STUDIES IN INTERPERSONAL RELATIONSHIPS

### *Definitions of Interpersonal Relationships*

The expression, "interpersonal relationship" has commonly been given two different meanings. The first refers to the relatively stable sets of feelings which two or more persons have toward one another. This is a concept of interpersonal relationship as a state of being. Investigators who have studied interpersonal relationships within this frame of reference have customarily utilized measures of attraction, interpersonal attitudes, interpersonal perception, or sociometric relationships, and have studied the interdependence of these variables.

The second, the dynamic or process concept of interpersonal relationships, refers to the behavior of two or more persons in relation to one another as this behavior is modified through interaction. This has commonly been studied by the investigation of patterns of interaction in dyads, and of patterns of communication in small groups.

A definition of the concept of interpersonal relationships, apart from considerations of stability or change, refers to seemingly general behaviors of people in groups. These are not usually related to task performance. The task as such is not regarded as integral with interpersonal relationships; however, the pattern of affect relationships among group members is an important determinant of a number of individual and group task performance phenomena.

As McGrath (1963) has pointed out, an aspect of the interpersonal relationship which is crucial to investigation and theory development is the repeated finding that, ". . . the interaction process within small groups is non-random with respect to time, content, level of participation, and pattern of participation . . ." (McGrath, 1963, p. 90). The possibility that there are identifiable patterns of interaction among the parameters of interpersonal relationship is a great boon to the investigator, because it offers hope for the prediction of future interactive behavior.

### ***Some Theories and Concepts of Interpersonal Relationships***

Current formulations of theory in the area of interpersonal relationships differ widely in the types of central concepts they use. Newcomb's (1956) theory, for example, is built around the concepts of interpersonal attraction, attitudes, and communication. This can be contrasted with the conceptualizations of Bion (1948) and Thelen (1954) which are based upon depth characteristics of the individual which predispose him toward certain types of interactive behavior. However, there are similarities among theories. A major communality is their tendency to concentrate on dyadic or triadic relationships. This tendency can probably be attributed to the complexities which develop in attempting to generalize beyond these specific levels or types of group relationships.

McGrath (1963) examined a broad range of empirical findings and theoretical concepts. From this survey he derived three parameters which appear to be fundamental to any interpersonal relationship situation. He labeled these attraction, influence, and interaction. It is McGrath's belief that, although these three parameters are somewhat interrelated, they are distinct entities. He further postulated that they are inherent in any interpersonal situation and that each has two aspects, one behavioral or objective and the other phenomenological or subjective. He perceives them also as inherently dyadic or relational concepts. He suggested that the effect of any important member, group, or situational variable seems to be mediated through one or more of these fundamental interpersonal processes.

McGrath's was not the earliest theoretical formulation based on a set of three different entities. Schutz (1958, 1961) postulated three basic interpersonal needs: inclusion, control, and affection. McGrath makes the argument that Schutz's system has parallels in related work of other investigators. He cites Osgood's (Osgood, Suci, and Tannenbaum, 1957) isolation of three basic dimensions in perception: activity, potency, and evaluation. McGrath relates Osgood's dimension of activity to Schutz's dimension of inclusion, and his own parameter of participation or interaction. In the same manner, he links control and potency to interpersonal influence, and the dimensions of affection and evaluation to his parameter of valence or attraction between persons.

An additional parallel can be drawn from the work of Hemphill (1950). In studying leader-follower relations, he factored out three primary dimensions of interpersonal relationships, naming them sociability, structure in interaction, and consideration. It appears that Hemphill's sociability is similar to Schutz's inclusion, Osgood's activity, and interaction in McGrath's system. Structure in interaction is similar to Schutz's

control dimension, Osgood's potency dimension, and McGrath's influence parameter. Lastly, Hemphill's concept of consideration is related to McGrath's attraction parameter, to Schutz's affection dimension, and to Osgood's evaluation dimension.

In contrast to the above tripartite systems, Cartwright and Zander (1960) found four primary dimensions of group structure. However, two of these, patterns of interaction and patterns of communication, appear to be encompassed within McGrath's interaction parameter. Their third dimension is power structure, which is similar to McGrath's influence parameter; while their fourth dimension, sociometric or friendship structure, is a concept closely akin to McGrath's valence or attraction parameter.

Leary (1957) and Schaefer, Bell and Bayley (1959) have found two main factors in interpersonal relationships. Their Love-Hostility dimension is similar to Schutz's affection and McGrath's attraction parameter, whereas their Dominance-Submission dimension is similar to Schutz's control and to McGrath's influence. It is important to note that they concentrated on feelings rather than action, and as a consequence they did not find an interaction parameter. Foa (1961) pointed out the convergence in theories of the structure of interpersonal relationships. He demonstrated that there was consensus on two dimensions as principal factors in interpersonal behavior. Foa did not derive a third general factor, but this might be attributed to his concentration upon the static or structural aspects of interpersonal relationships. His finding was quite consistent through many diverse investigations despite differences in types of ratings used and composition of groups under investigation.

There have been numerous other attempts to categorize interactive behavior and a large proportion of these have yielded three-way classifications. Among the earliest students of the interpersonal relationship was Georg Simmel (1950), who divided interaction into cooperation, competition, and conflict; but these would all seem to be subsumed under McGrath's interaction parameter. Karen Horney (1945) has categorized all human interaction as toward, against, or away from people. Her categories likewise seem to fit under only one of McGrath's parameters, that of attraction.

Halpin and Croft (1963) found that the organizational climate of schools is made up of three broad characteristics which they labeled social need (an individual trait), esprit (a group trait), and social control (a trait of leadership). The social need characteristic of Halpin and Croft seems to be related to McGrath's attraction parameter, as does esprit, while their social control variable is like McGrath's influence

**TABLE 1**  
**SIMILARITIES BETWEEN MCGRATH'S PARAMETERS OF INTERPERSONAL RELATIONSHIPS**  
**AND THE DIMENSIONS PROPOSED BY OTHER THEORISTS**

<i>Theorist</i>	<i>Dimensions Related to Attraction</i>	<i>Dimensions Related to Influence</i>	<i>Dimensions Related to Interaction</i>
Schutz (1958)	Affection	Control	Inclusion
Osgood (1957)	Evaluation	Potency	Activity
Hemphill (1950)	Consideration	Structure in Interaction	Sociability
Cartwright and Zander (1960)	Sociometric or Friendship Structure	Power Structure	a. Patterns of Interaction b. Patterns of Communication
Leary (1957)	Love-Hostility	Dominance-Submission	
Schaefer, Bell & Bayley (1959)	Love-Hostility	Autonomy-Control	
Foa (1961)	Love-Hostility	Dominance-Submission	
Simmel (1950)			a. Cooperation b. Competition c. Conflict
Horney (1945)	a. Toward People b. Against People c. Away from People		
Halpin & Croft (1963)	a. Social Need, an individual trait b. Espirit, a group trait	Social Control, a trait of Leadership	

parameter. As was the case with Leary, Schaefer, and Foa, it appears that the concentration of these authors on the structural aspects of interpersonal relationships resulted in their failing to find an interaction parameter. The relationship between McGrath's parameters and those proposed by the above theorists is shown in Table 1.

In summary, the evidence supports the belief that there are three interrelated but distinct parameters of the interpersonal situation. These have both behavioral and phenomenological aspects, and each is inherently a dyadic or relational concept. These parameters are related at both conceptual and empirical levels. Interaction is a necessary condition for both influence and attraction. The probability of interaction is a function of prior attraction and perceived power relationships between individuals. Moreover, a person is more likely to be influenced by a positively attractive other and to be more attracted to others who wield power or influence or who have high status (McGrath, 1963). Thus, in the present state of knowledge, it appears that many of these seemingly divergent concepts and theories of interpersonal relationships can be subsumed under the three parameters of attraction, influence, and interaction.

### OUTLINE OF THE REVIEW

There has been wide study of the varied phenomena of interpersonal relationships, with many attendant attempts to integrate the concepts and findings in this field. The present monograph is a selective review of the literature with two primary aims. The first of these is to bring some integration to the empirical evidence concerning interpersonal relationships. The second is to suggest some approaches to the investigation of the dyadic interaction in the rehabilitation counseling process, a topic that will be treated more specifically and in greater detail in Bulletin No. 2.

Because McGrath's schema seems to be capable of organizing more of the data than other comparable systems, it has been selected as the frame of reference for the present review. The major chapters of the monograph will deal with reports related to the parameters of attraction, influence, and interaction. Some studies overlap these categories and may be dealt with in more than one section. The attempt has been, not to limit the time span covered by this review, but rather to offer a representative cross-section of the work in interpersonal relationships which may have relevance for the counseling process.

## II

### THE ATTRACTION PARAMETER

Chapter I dealt with central concepts in theories of interpersonal relationships. Primary emphasis was placed upon the three-part scheme of McGrath (1963) in comparison with other two-, three-, and four-part schemes. As was illustrated in Table 1, each of the central concepts of the authors considered could be either equated to or subsumed under one of McGrath's three parameters — attraction, influence, or interaction.

The first section of this chapter deals specifically with the theoretical development of the attraction parameter. Following it is a section concerned with empirical findings related to this parameter.

#### THEORIES OF ATTRACTION

McGrath (1963), in describing the attraction parameter, stated that individuals develop attraction or affect relationships toward one another which tend to persist. These feelings can be positive, negative, or ambivalent. Individuals vary in the tendency to develop positive or negative valences to others in general. He postulated that attraction depends on a number of behavioral characteristics of the other and on perception of the other. McGrath indicates that there are a number of factors which have an effect on attraction. Some of the variables which he lists are, in Homans' (1950) terminology: (a) Person's perception of his status relative to that of Other; (b) Person's propensity for interaction and the relative availability of Other for interaction; (c) Person's perceived similarity to Other; (d) Person's estimate of Other's attraction to Person; (e) Person's estimate of Other's agreement with him regarding important issues; and (f) Person's perception of Other's power.

This list of variables iterates McGrath's primary concern with the motivational-affective aspects of attraction. These aspects have also been focal points for Newcomb (1956) who presented in his presidential address to the American Psychological Association a formulation regard-

ing the variables which affect interpersonal attraction. Newcomb noted that each of these variables is located at some point on an approach-avoidance continuum.

Newcomb stressed that, as in the area of interpersonal relations generally, there is no adequate theory of interpersonal attraction, although both theoretical and empirical efforts have been directed to the problem. He discussed four concepts which have been advanced as explanations of attraction: propinquity, reward and reinforcement, generalization, and similarity. He made it clear that, although the notion of *propinquity* is the simplest and in many ways the most convincing of those concerning the determinants of positive attraction, it is only because propinquity enhances the opportunity for other determinants to bring their effects to bear that it has a significant relationship to attraction. He cited Homans' hypothesis that ". . . If the frequency of interaction between two or more persons increases, the degree of their liking for each other will increase . . ." (Newcomb, 1956, p. 576), and suggested that the proposition is correct in a wide range of situations, if other variables are ignored.

According to Newcomb, the most likely way to make psychological sense of the evidence concerning propinquity is to utilize the principle of *reward and reinforcement*. He presented two assumptions which, he believed, would make this principle operable in a given interpersonal situation. The first is that the reward-punishment ratio in interaction between people is more apt to be rewarding than punishing. The second is that frequency of reward is most apt to vary directly with frequency of interaction.

He called attention to one consequence of the proposition that attraction varies with the frequency of reward. He pointed out that opportunities for being rewarded vary with the motivation of potentially rewarding persons as well as with their propinquity. This suggests the likelihood that frequency of reward varies with the frequency with which rewards are bestowed on the other person. This leads to Newcomb's proposition of *reciprocal reward*, which states that the likelihood of receiving rewards from a given person, over time, varies with the frequency of rewarding him. He argued that this proposition is significant because it forces consideration of the conditions for continuing interaction and, therefore, for the greatest likelihood of reciprocal reward.

The conditions which Newcomb listed as important for interaction and high degree of likelihood of reciprocal reward are: (a) the possession of common interests of co-communicators (apart from themselves) which require interdependent behavior; and (b) the possession of complement-



ary interests which require interdependent behavior. Newcomb dealt with complementarity as a special case of similarity.

In disposing of the principle of *generalization*, Newcomb stated that it has nothing to say about the initial basis of attraction, but only about the enhanced probability that the threshold of attraction will be lower for persons who resemble those toward whom we are already attracted than for those who do not bear such resemblance.

He dismissed the proposition that attraction varies with *similarity* as too broad and indiscriminate. He called attention to the basis of many kinds of similarity in sheer contiguity. He went on to suggest that the possession of similar characteristics predisposes individuals to be attracted to each other only to the extent that those characteristics provide a basis for similarity of attitudes.

Newcomb took the position that interpersonal attraction always and necessarily varies with perceived similarity regarding important and relevant objects, especially the persons themselves. Similarity is a necessary rather than a sufficient condition. However, Newcomb believed that similarity accounts for more of the variance in interpersonal attraction than any other single variable.

He stated the further belief that these two variables tend to maintain a constant relationship because each is sensitive to changes in the other. If new information leads to increased or decreased attraction, changes in perceived similarity will follow — often at the expense of accuracy; and if the new information brings about changed perceptions of similarity, the direction or degree of attraction will be altered to fit the situation as it is newly perceived.

An assumption which was held by Newcomb was that persons, as objects, have properties which distinguish them from other objects. For example, as objects of attitudes they also have attitudes and, in particular, they have or can have attitudes toward the same objects as do persons for whom they are objects. Further, object-persons have the same capacities for being disturbed by perceived discrepancies in the interpersonal relationship as do those who are attracted toward them. These distinctively human characteristics must, according to Newcomb, be given a place in any theory of interpersonal attraction which is to be distinguished from general theories of attitudes.

It is interesting to note the parallels in Homans' (1961) treatment of the totality of human interaction and the treatment by Newcomb (1956) and McGrath (1963) of the parameter of attraction. In each system similar variables appear as the basis of explanation for the phenomena with which the authors are dealing.

Homans relates proximity to the likelihood of interaction, while Newcomb relates the concept of propinquity to the likelihood of attraction. However, while Homans accepts proximity as a given in the interaction situation, Newcomb, as has been shown, argues that propinquity serves only a mediating role between behavioral determinants and attraction. McGrath, the synthesizer, combines the concept of propinquity with that of propensity for interaction (a behavioral determinant of attraction).

Homan's first proposition concerning the conditions for interaction places a large part of the explanatory burden upon the principle of generalization. Newcomb holds that the concept of generalization does not contribute to the understanding of attraction because it produces its effect only after a basis for attraction has been established by other determinants. McGrath does not provide for the possible effect of this variable.

The concept of mutual reinforcement is advanced by Homans as crucial to the maintenance of an interactive relationship. Newcomb attaches great importance to the similar concept of reciprocal reward, as does McGrath.

Homans' term value, which is identified as a component of activity or interaction, seems to be closely related to Newcomb's concepts of relevance and importance of attitudes as determiners of attraction, and to McGrath's variable of mutual agreement concerning important issues. Newcomb introduces the concept of increasing attraction as a function of increase in communication, a concept which is comparable to Homans' term quantity, a second component of interaction. In McGrath's formulation, there are several variables which have an effect on attraction, which bear a relationship to Homans' combined concepts of value and quantity. Homans introduces the concepts of cost, defined as value foregone in choosing one activity and relinquishing alternatives, and profit, defined as reward less cost. These variables enter into his formula for predicting interaction. Newcomb's negative and positive valence variables, and those to which McGrath refers as negative and positive satisfaction appear to be analogous to Homans' terms, cost and profit. Value, in Homans' use of the concept as a variable, also has positive and negative connotations.

All three authors treat interactive behavior as potentially either rewarding or punishing. All arrive at the conclusion that such behavior is more apt to be rewarding than punishing.

It is apparent, then, that Homans and Newcomb, recognized innovators in the field of interpersonal relations, and McGrath, who has very effectively and skillfully synthesized much of the earlier work in his interaction model, have arrived at a consensus on many of the significant determiners of attraction.

The following sections contain a review of empirical findings related to the several dimensions of the parameter of attraction as these dimensions have been proposed by Newcomb (1956) and McGrath (1963).

### SIMILARITY OF ATTITUDES

Newcomb's (1956) hypothesis that similarity of attitudes concerning important and relevant issues is an influential variable in attraction has been tested by a number of investigators. Newcomb himself was able to test this proposition in an exceptionally well-designed and well-executed study. In each of two successive years, seventeen transfer students to the University of Michigan, with no prior acquaintanceship, were provided with free housing in return for their participation in an experiment. In the first year roommates were assigned without any pattern. In the second year half were assigned to insure minimal attraction and half maximal attraction. During the experimental period, data were obtained by questionnaire and interview at semi-weekly intervals. These included responses to a number of attitude measures and reports concerning interpersonal attraction.

Newcomb found that similarity between pairs of members, in attitudes toward other members of his experimental group, was correlated with attraction to a barely significant degree at the beginning of the experimental period, but highly correlated by the end of four months of association. This established to his satisfaction that the relationship between these variables increases with time.

He demonstrated a relationship between attraction and similarity in attitudes toward non-person objects, first, by treating highly generalized values as objects. This was done by relating attraction to pair agreement in scores on the Allport-Vernon-Lindzey Study of Values (1951). Significance levels ranged from .05 to .01 for this agreement. Second, the *number* of non-person objects about which there was a given degree of similarity was chosen as an index of attitude similarity. Newcomb found that this index was related to attraction for only one of his two sets of subjects and the relationship for this group did not approach the .05 level of significance. However, this measure did successfully predict from pre-acquaintanceship similarity to later attraction.

Byrne and his associates (Byrne, 1961, 1962; Byrne and Wong, 1962; Byrne and McGraw, 1964; Byrne and Nelson, 1964) have conducted a series of studies which demonstrate the complexity of the relationship between similarity of attitudes and attraction. Byrne (1961) administered a twenty-six-item scale for the measurement of attitude and opinion to sixty-four male and female students enrolled in an introductory psychology course at the University of Texas. After completing the scale, each subject indicated what he considered the thirteen most important and thirteen least important issues dealt with in the scale. Two weeks later subjects were randomly divided into four groups, each member of which received one of four types of bogus attitude questionnaires supposedly completed by a fellow student. These were: (a) responses exactly the same as those of the subject; (b) responses exactly opposite to those of the subject; (c) responses the same on the most important and unlike on the least important issues; and (d) responses unlike on the most important and like on the least important issues. Each subject then completed a measure of attraction for and evaluation of the "person" who had filled out the bogus questionnaire. Byrne's findings substantiated those of Newcomb in that his subjects liked strangers with attitudes similar to their own more than those with dissimilar attitudes. His subjects also judged the former to be more intelligent, more moral, better educated, and better adjusted. He failed to substantiate Newcomb's proposition that the variable of importance of issues on which attitudes are similar has a bearing on attraction.

In a study reported in the following year, Byrne (1962) investigated the effect of attitude similarity and affiliation need on interpersonal attraction in a second group of college students. In this experiment he administered the attitude scale, which he had used in the study reported above, to a group of 112 students in introductory psychology at the University of Texas. They were asked to indicate their opinions about each issue. Two weeks later, they were falsely informed that the scale had been administered to a second group of students. The purported responses of this non-existent group were given to the experimental subjects. After reading these, the subjects were asked to evaluate the "others" on a scale of interpersonal judgment. Byrne found that, again, interpersonal attraction varied directly with attitude similarity. A further finding was that attitude similarity-dissimilarity and affiliation need interacted to influence attractiveness ratings, but that the relationship is a more complex one than he had predicted.

Byrne and Wong (1962) extended the investigation of variables which influence interpersonal attraction to that of race. Two groups of

introductory psychology students, each comprised of sixty subjects, the first high in prejudice, the second low in prejudice, completed the attitude survey. They were then given copies of the survey purportedly completed by strangers, students at the University of Texas and at other nearby institutions, including a Negro college. In addition, they were given background information, which included the race of the stranger. After reading these materials they were asked to express the degree of their attraction toward the stranger. Half of each group received scales on which the stranger agreed with them completely, while the other half received scales on which the stranger was in complete disagreement with them. These agreeing and disagreeing groups were further divided into half whose race was indicated as Negro and half whose race was indicated as white. The main finding of these authors was that, regardless of prejudice of subject and race of stranger, similarity of attitudes resulted in ratings of attraction, and dissimilarity of attitudes resulted in negative ratings. They found, for both prejudice groups, a tendency for agreeing whites to be rated more positively than agreeing Negroes and for disagreeing Negroes to be rated more positively than disagreeing whites. They attributed the latter findings to the possibility that allowances were being made for the weaknesses of an outgroup.

Byrne and McGraw (1964) designed a study to investigate in greater detail the unexpected finding that attitude similarity-dissimilarity overcame the effects of prejudice on attraction toward Negroes. Nine hundred students in the introductory psychology course at the University of Texas were given a measure of prejudice toward Negroes. A high-prejudice group, composed of ninety-one males and sixty-nine females, and a low-prejudice group made up of seventy-nine males and eighty-one females, were selected on the basis of scores on this scale. Subsequently these 320 subjects, all white, performed a survey of attitudes. Several weeks later the subjects received bogus attitude scales in which responses ranged through eight levels of agreement, from complete agreement to complete disagreement. Subjects received detailed protocols, including yearbook photographs, concerning the "strangers" who were supposed to have performed these scales. Half of these were Negroes and half whites. Strangers and subjects were matched by sex. After careful study of these materials, subjects rated the strangers on a scale of interpersonal judgment.

Contrary to the findings of Byrne and Wong (1962), Byrne and McGraw found that prejudice and race do interact to influence attraction. Low- and high-prejudiced subjects responded to white strangers, and low-prejudiced subjects responded to Negro strangers, on the basis

of similarity of attitudes. High-prejudiced subjects, however, responded to Negroes uniformly regardless of attitudes.

To clarify the reasons for the discrepancy between the findings of Byrne and Wong and those of Byrne and McGraw, the latter authors conducted a second experiment. As in the first experiment, groups of high- and low-prejudiced subjects were asked to give attraction ratings with respect to a stranger. In this experiment, all of the strangers were identified as Negroes. Three levels of attitude similarity were employed. Photographs were attached to the protocols of half of the strangers. Subjects were 120 white students selected from approximately 350 students in the introductory psychology course on the basis of prejudice scores. These subjects were placed in high- and low-prejudice groups comprised of thirty males and thirty females. Each subject performed the survey of attitudes referred to above, and subsequently rated his attraction toward a stranger whose responses were identical to his own, opposite to his own, or different from his own on half of the items. Items of agreement and disagreement were randomly chosen and varied across subjects. Strangers and subjects were again matched by sex.

In this replication, low-prejudice subjects responded to a Negro stranger as to a white stranger. It was found that attraction ratings vary as a linear function of the proportion of similar to dissimilar attitudes. However, subjects high in prejudice responded positively to a Negro stranger, providing he was completely similar in attitudes on a majority of topics, and responded with indifference or dislike toward a Negro stranger who departed from total similarity.

Continuing the investigation of the relationship of attitude similarity to attraction, Byrne and Nelson (1964) attacked the problem of the effect of topic importance. They constructed four fourteen-item attitude scales varying from the fourteen least important to the fourteen most important items, based on the judgments of a group of 138 undergraduate students. Each of 112 subjects filled out one of these four scales. Several weeks later, these subjects participated in an experiment in interpersonal judgment. In this experiment the attitude scales of non-existent anonymous students provided the basis for a series of judgments about them, including measures of attraction. These bogus scales were so constructed that half of the subjects responded to strangers similar to them on all fourteen items and the other half to strangers dissimilar on all fourteen. Again, proportion of similar attitudes was found to have a highly significant effect on attraction, but topic importance did not approach statistical significance.

Byrne and Nelson caution against the conclusion that Newcomb's proposition concerning the importance of issues is incorrect. They argue, first, that the range of topic importance in their own study may not have been broad enough to produce the expected effect. Second, because each responded to only one stranger and thus did not compare strangers identical in proportion of similar attitudes but differing in topic importance, the effect of the latter variable may have been obscured. They suggest that in a study in which each subject responded to several strangers, it is possible that the effect of topic importance on attraction could be demonstrated.

Broxton (1963) explored the interpersonal attraction factors which influence roommate compatibility among college women. One hundred twenty-one university women who requested roommate changes during the academic year performed an adjective check list. Her findings suggest that interpersonal attraction varies with attitudinal similarity related to the self as an object of importance.

Triandis (1960) conducted a study of group creativity in dyads. He found that among the variables which account for higher or lower creativity in pairs are attitude similarity and interpersonal attraction.

Fauquier and Vinacke (1964) derived hypotheses, from theoretical analyses of Newcomb (1955) and of Festinger (1955) concerning the effects upon amount of communication and degree of opinion change when pairs of subjects vary in mutual attraction and orientation toward an issue. Two of these hypotheses are relevant here. One of these was that the greater the attraction between two persons, the more numerous would be their communicative acts. The second was that the greater the attraction between two persons, the less would be their resistance to changing opinion toward uniformity. Forty pairs of subjects engaged in discussion concerning their attitudes toward organized religion. High and low mutual attraction between subjects was manipulated by alleged matching on a personality scale. Subjects were matched in similarity and difference of opinion about organized religion on the basis of scores on an attitude scale. The association between high attraction and a high degree of communication was found to be statistically significant, but the association between attraction and opinion change was not significant.

The bulk of evidence in the studies cited supports the hypotheses of Newcomb (1956) and McGrath (1963) that attitude similarity of communicators has a significant effect upon the attraction between them. These findings indicate that there is not a simple, one-to-one relationship between attitude similarity and attraction. Attitude similarity interacts with other variables to produce its effect upon attraction. Among these

other variables, for which evidence has been offered, are personal values, race and prejudice, topic importance, and degree of communication.

### ***Implications of Studies of Similarity of Attitudes for the Counseling Process***

These findings suggest that when two persons engage in dyadic interaction, particularly if they have similar attitudes, their attraction will increase as a function of the frequency of their interaction. It would appear, then, that if mutual attraction can be demonstrated to be related to successful rehabilitation outcomes, more frequent client-counselor interaction might increase the likelihood of desirable outcomes of the rehabilitation process.

Byrne's (1961) study introduces a cautionary note. As an individual becomes aware of attitude similarities these may introduce a positive bias, so that he is not able to judge objectively the qualities, capabilities, and aptitudes of another. The opposite may be equally true. Revealed dissimilarity may introduce a negative bias. Assuming the findings for college students apply to counseling, the counselor needs to be particularly aware that the combination of racial difference and attitude dissimilarity will almost certainly induce negative bias in a prejudiced person. There is also a necessity to be aware that a strong need to relate to others, whether it is a characteristic of the client or of the counselor, may influence the effect of attitude similarity on attraction in a complex way.

### **PERCEIVED SIMILARITY**

Newcomb (1956) reported that perceived similarity in valuing the self contributes heavily to variance in attraction and that judgments become more accurate over time. He found one restriction on this generalization, namely that the strain of perceived discrepancy between self-attitudes and actual status is reduced at the cost of accuracy. Perceived similarity in attitudes concerning other persons as objects also contributed to attraction between subjects.

Tagiuri, Blake and Bruner (1953) investigated the ability of group members to perceive the feelings of others in the group toward them. Three voluntary discussion groups of ten members each were drawn from various professions. Each of these groups came together for twelve two-hour sessions. At the conclusion of each session, members were asked to indicate, without restriction on the number of choices, those in the group they liked best and least, and those who they believed liked them best and least. Perceptual accuracy, defined in terms of correct predictions of other's feeling for self, was found to exist in excess of chance, as was



congruency between expressed feeling for another and perception of that person's feeling for oneself. However, the relationship between expressions of feelings of members of dyads did not exceed chance.

Tagiuri, Kogan, and Bruner (1955) examined the problem of transparency of interpersonal choice, which they defined as the extent to which a subject's preferences are known to the other members of a group. They first compared subjects' transparency scores to the level of transparency which would be obtained if members of the group judged subjects' choices on a random guessing basis. Under this condition, approximately three-fourths of the subjects in a group obtained transparency scores significantly in excess of those expected by chance alone. Mean observed transparency scores in each group were also significantly above the chance level.

The authors went on to explore the factors which might be responsible for individual differences in transparency. They found that reciprocated choices are far more transparent than those which are not reciprocated. They also found that the transparency of the reciprocated choices of a single group member significantly exceeds the transparency of his unreciprocated choices. They concluded that their data clearly indicate that transparency is much more a function of mutuality of choice than of any personality characteristics of the persons involved in reciprocal relationships. They also found that reciprocation by a free or unlimited choice contributed far less to transparency than did reciprocation by a fixed or limited choice.

Tagiuri (1956), in a study focused on like-dislike of one person for another and the perception of that feeling in the other, obtained data by asking group members to preferentially rank each of the others of the group and to indicate which members would choose him. Results confirmed the belief that individuals tend to behave toward others according to the way others behave toward them.

In a study highly similar to that of Tagiuri, Kogan and Bruner (1955), Tagiuri and Kogan (1957) examined the problem of visibility of choice, defined as the extent to which sociometric preferences are known to the members of a group. The subjects of their study were five groups of navy enlisted personnel. Their findings led them to conclude that visibility of preference is a function of the particular dyadic relationship which exists between the chooser and the person chosen. When reciprocation, a major determinant of visibility, was held constant, the presence or absence of a feeling of being chosen had a substantial influence on subjects' choices. When self-confidence and mutuality of preference were present, visibility attained its highest values. Degree of visi-

bility of choice was also found to be a function of the degree of integration of the dyad in which subject's choice was embedded.

Greer (1954) obtained measures of discrepancy between an objective group preference hierarchy structure and individual estimates of this preference hierarchy structure for members of infantry rifle squads who had scored either high or low on a criterion field problem. He found that appointed leaders were more accurate in estimates of the preference hierarchy structure than non-leaders. Popular members of the squads were more accurate than unpopular members, and members of effective groups were more accurate than members of ineffective units. Greer's findings are substantially the same as those of Newcomb (1956) who reported a positive relationship in his sample between liking, status and accuracy in estimates of reciprocation.

Mellinger (1955), in his doctoral dissertation, tested hypotheses derived from Newcomb's assumptions concerning the relationship within a system of attitudes of two communicators. His study population was composed of professional scientists in a governmental agency. The data were collected by paper and pencil questionnaire regarding liking and trust of one's colleagues. His findings supported the hypothesis that high liking for another person predisposes an individual to distort information about the other's opinion in the direction of perceived similarity.

Fey (1955) found that subjects with high self-acceptance scores tend also to accept others and to feel accepted by others, but actually to be neither more nor less accepted by others than those with low self-acceptance scores. However, subjects with high acceptance of others' scores tend to feel accepted by others and to be accepted by them. Subjects who think better of themselves than of others tend to feel accepted by others, whereas actually they are less well-liked by them. Fey's findings offer some substantiation for Newcomb's proposition that attraction toward another person is related to perceived similarity of attitudes toward the self as an object. They also clarify the relationship between mutuality of attraction and reciprocal reward.

Lundy, Katkovsky, Cromwell, and Shoemaker (1955) tested two hypotheses concerning the relationship between self-acceptance and descriptions of sociometric choices: (a) descriptions of positive sociometric choices will be more like subjects' acceptable self-descriptions than they will be like their unacceptable self-descriptions; (b) descriptions of negative sociometric choices will be more like subjects' unacceptable self-descriptions than their acceptable self-descriptions.

To test these hypotheses, the experimenters administered a multiple-choice personality description blank to each of fifty-four undergraduate

sociology students under four different conditions. The four sets of instructions were to select the descriptions which: (a) most nearly paralleled their self-descriptions; (b) most nearly characterized their ideal selves; (c) most nearly characterized the fellow-student they most liked to be with; and (d) most nearly characterized the fellow-student they least liked to be with. Self-acceptance scores were established by obtaining the differences between self-concept and ideal self responses.

Lundy and his associates found that descriptions of positive socio-metric choices were highly significantly related in content to subjects' acceptable self-descriptions, as they had predicted. They were able to report only a tendency, however, for descriptions of negative choices to be similar to unacceptable self-descriptions. These results are congruent with Newcomb's findings concerning attraction and perceived similarity, and they support McGrath's argument for the influence of perceived similarity on attraction.

Taylor (1957) found that subjects display their feelings sufficiently in groups so that they can be perceived at better than a chance level, and that accuracy increases with an increase in length of acquaintanceship. He also found that the unpopular members of his sample were reserved in displaying emotion and were ignorant of the emotion they aroused in others. These latter findings are confirmatory of the results Newcomb (1956) obtained concerning his least-liked subjects.

Lundy (1958) confirmed the earlier findings of Tagiuri (1956) in that his subjects tended to ascribe their own characteristics to people they liked, especially ideal or highly acceptable characteristics.

Murstein (1958) dealt with what may be interpreted as the negative pole of the valence dimension. Eighty men students at the University of Texas were divided into groups of hostile-insightful, hostile non-insightful, friendly insightful, and friendly non-insightful subjects. Each subject was given a Rorschach, for which only perception was recorded and interpreted to him. On the basis of this experience he was asked to rate the interpreter. Those subjects called "hostile" by the interpreter reacted to this threat by rating the interpreter as hostile. Those subjects called "friendly" rated the interpreter as friendly. Thus support is provided for Newcomb's hypothesis that attraction is related to perceived similarity in attitude toward the self as an object.

Backman and Secord (1959) found that when members of a small group were told that they were liked by certain individuals in the group, they sought the association of those individuals over that of others in the group. With increased acquaintanceship, this attraction became less evident. Backman and Secord have demonstrated in this study that the

discrepancy between self-attitudes and actual status is not always reduced at the cost of accuracy. On some occasions it may be the degree of attraction which changes.

Dittes (1959) in a study of the relationship between attractiveness of a group and acceptance by the group, found a relationship between perceived similarity of attitudes toward the self and attraction toward the others who share such opinions.

Williams (1962) tried to replicate Fey's (1955) study. Williams found a low positive correlation between actual acceptance by others and the expectation of it; but he also found that, if subjects predicted peers' ratings of them as close friends, there was a high positive correlation with actual acceptance. He found no evidence that actual acceptance by others is related to self-acceptance, acceptance of others, or the difference between them. This study supports Newcomb's proposition that the relationship between attraction and perceived similarity of attitudes toward the self as an object is a function of degree of communication.

Backman and Secord (1962) conducted a study designed to determine whether or not the principles of interpersonal congruency theory could be demonstrated in a living group. They found a high degree of relationship between attraction and perceived similarity of attitudes concerning the self.

Byrne and Wong (1962) reported that high-prejudiced subjects assumed greater dissimilarity between themselves and a Negro stranger than between themselves and a white stranger. They also assumed greater dissimilarity between themselves and a Negro than did low-prejudiced subjects. For the latter group, assumed dissimilarity scores for whites and Negroes did not differ to a statistically significant degree. One possible interpretation of these findings, which Byrne and Wong offered, was that rather than prejudice leading to assumed dissimilarity, actual dissimilarity of attitudes leads to prejudice. However, they found that the attitudes of the high- and low-prejudice groups were not different on the majority of the issues involved, and concluded that it was unlikely that the former group differed more from the Negro strangers than did the latter group. They accepted the conclusion that an unwarranted assumption of dissimilarity with respect to the outgroup is a concomitant of racial prejudice.

Reese (1961) administered self-concept and ideal self scales and two sociometric scales to groups of fourth-, sixth-, and eighth-grade students. Analysis of his data disclosed that: (a) Acceptance of others, acceptance by others, and acceptance by best friend were curvilinearly related to self-concept scores. He found highest acceptance in a group with moderate

self-concept scores and lowest acceptance in a group with low self-concept scores. Neither grade nor sex had any effect. (b) Acceptance by others was more strongly related to self-concept than was acceptance by best friends. (c) The sociometric measures were not significantly related to the discrepancy between ideal self and self-concept scores. Reese interpreted this as indicating that the discrepancy score obtained by subtraction may not be a valid measure of self-acceptance. The findings of Reese are in substantial agreement with those of Fey (1955), and Williams (1962), and provide further support for Newcomb's proposition that attraction is closely related to perceived agreement about the self as an object. Newcomb found, as did Reese, that subjects who were strongly attracted to each other agreed not only on favorable descriptions but also on unfavorable descriptions of themselves.

Murstein (1961), in a study related to that reported above (Murstein, 1958) studied accuracy of judgments, using the pooled rank method. His subjects were four groups, each composed of twenty college men, categorized respectively as hostile-insightful, hostile-noninsightful, friendly-insightful, and friendly-noninsightful. Murstein used the normalized mean ranking as his criterion and derived a perceptual inaccuracy score which was the mean discrepancy between an individual's judgments of his fraternity brothers and the values assigned to them by the other members of the group. He found that the four groups differed significantly in accuracy. The members of the friendly-insightful group were the most perceptive. Murstein concluded that the possession of the trait of hostility distorts the perception of hostility in others. He also concluded that insightful persons, whether hostile or friendly, are more objective in their perception than non-insightful persons.

Newcomb (1963) reported that, based on his earlier work (Newcomb, 1956), accuracy of estimates of attitude similarity, and of attraction, increased with acquaintanceship. This finding provides further support for Newcomb's proposition that attraction is a function of degree of communication.

Byrne and Blaylock (1963) tested the hypothesis that assumed similarity of attitudes between husbands and wives would be greater than actual similarity. Their subjects were thirty-six married couples who performed measures of political attitudes and more general attitudes in terms of their own opinions and then performed the same measures as they thought their spouses had done. The obtained correlations between self-scores and assumed spouse scores were all significantly larger than those between self-scores and measures of actual similarity. The authors concluded that their hypothesis was confirmed.

Broxton (1963), in her study of college women reported above, found that interpersonal attraction between roommates varied more directly with perceived similarity of attitudes toward the self and others than with objective similarity. Although Broxton was dealing with a different population than were Byrne and Blaylock, her findings were highly similar to theirs.

Luckey (1964) correlated self and spouse scores on a marital adjustment scale and the Interpersonal Checklist (Leary, 1957). Her data do not demonstrate a causal relationship between perceived similarity and satisfaction, viewed as a resultant of attraction; but they were believed to be consistent with such an interpretation.

### ***Implications of Studies of Perceived Similarity for the Counseling Process***

Each of these reports provides some degree of confirmatory evidence for Newcomb's and McGrath's proposition that attraction is a function of perceived similarity of attitudes toward the self as an object. This appears to be true regardless of the composition of the dyad. Other variables which have been shown to affect the relationship between perceived similarity and attraction are degree of communication or length of acquaintance, prejudice, degree of self-acceptance, and degree of acceptance of others. In addition there is evidence to suggest a like relationship between perceived similarity and satisfaction, defined as a resultant of attraction.

The findings of Tagiuri and his associates suggest the importance of a positive, accepting attitude toward all clients, because of the tendency of individuals to behave toward others as the others behave toward them. Thus, empirical support is suggested for what has amounted to a dogma of rehabilitation counselor training.

Again, it should be pointed out that a high degree of attraction may so influence one person's perception of another person as to distort information about the other's opinion in the direction of perceived similarity. In such a situation the person may perceive the other as being in agreement with him in regard to a given plan, when in reality the other may hold a quite different opinion.

There is a warning, in Fey's results, that an individual should not expect ready acceptance from others simply because he has high self-regard and a concomitant high degree of acceptance of them. The significance of Taylor's study for the counselor seems to be that a person's failure to express honest emotions may inhibit the expression of feelings in others and thus keep him ignorant of the emotion he arouses in them.

Reese found that acceptance by others is more strongly related to self-concept than is acceptance by best friend. This may be interpreted to mean that attraction, or its opposite, negative valence, increases as a function of communication. A suggestion which arises from this evidence is that there should be frequent dyadic interaction so that the bias introduced by the self-concept of each will not have a lasting effect on the perception each has of the other.

Murstein's (1961) results indicate that a person who is hostile and who lacks insight is apt to misperceive the communications, attitudes, and feelings of others. By extension, it would appear that friendliness, or an absence of hostility, and insight are among the essential qualifications of a counselor.

A more general conclusion, which seems to be validly drawn from the results of the studies reviewed in this section, is that an individual must be aware of himself *as an object*. This means that he must be consciously aware of his own attitudes, feelings, beliefs, and value processes, particularly as these relate to his interaction with others. Such findings, if they are found to hold also for counseling, would have important implications for rehabilitation counselors and their training.

### SIMILARITY OF PERSONALITY

Tagiuri, Kogan, and Bruner (1955) investigated the nature of the relationship between transparency and personal dimensions when mutuality is held constant. They found that the relationship of transparency to expansiveness, self-confidence, popularity, and responsiveness is a function of the level of mutuality. Their conclusion from the analysis of these findings was that, although transparency is to a great extent a dyadic phenomenon, personality factors have an influence on transparency of choice over and above the effect of reciprocation.

Arbuckle (1956) used a sociometric technique, in a class of counselor trainees who had come to know one another well, to obtain evidence as to what aspects of personality make for successful counseling. He found considerable agreement in the selection of certain students as persons to whom one would be most or least likely to go for counseling. Preferred counselors were lower (more normal) on all MMPI scales, and higher on the Social, Persuasive, Literary, and Scientific Scales of the Kuder. Arbuckle's findings suggest that Newcomb's formulations concerning the relationship of personality characteristics to attraction are applicable to therapeutic as well as to social interactions.

Hoffman (1958) grouped undergraduate psychology students on the basis of interrelations among measures of their personalities. He formed

some groups of subjects with similar personalities, and other groups of subjects with dissimilar personalities. He examined the hypothesis that similarity of personality leads to attraction. Hoffman failed to find a difference in degree of interpersonal preference between homogeneous and heterogeneous groups. His inability to find support for his hypothesis may be attributable to his failure to account for similarity of attitudes and for the effect of the reciprocal rewards which would be expected to result from increased communication, regardless of the composition of his groups.

Izard (1960) tested the hypothesis that mutual friends have (a) similar personality profiles, and (b) significant positive correlations on some of the separate trait scales which comprise the profiles. He determined mutual best friends by a sociometric procedure and administered a fifteen-scale personality inventory to his subjects. His results, contrary to those of Hoffman, suggest that personality similarity, or similarity of affect needs and of ways of expressing and receiving affect, is significantly related to interpersonal attraction. Izard's study provides support for Neavecomb's contention that there is a relationship between attraction and certain combinations of personality characteristics.

Secord and Backman (1964), continuing investigation of interpersonal congruency theory, tested the effects of perceived similarity and interpersonal congruency on attraction. One hundred fifty-two subjects were asked to characterize themselves and a best friend of the same sex in terms of a set of needs. The authors concluded that perceived similarity of needs, like perceived similarities in attitudes and traits, is associated with friendship relationships.

### ***Implications of Studies of Similarity of Personality for the Counseling Process***

It would appear that similarity of personality characteristics, traits, and needs may provide an underlying basis for the relationship between attitudinal similarity and attraction. The kinds of relationships an individual establishes with others are determined, in large part, by his own personality traits and needs. They are also determined by his ways of expressing his feelings for others and his ways of accepting their expressions of feeling for him.

A possible implication for rehabilitation counselors from Arbuckle's study is that in order to interact effectively with many different kinds of people, it is important to have a wide range of interests. It is necessary to have at least sampled, not only a wide variety of academic offerings, but also a broad array of work and life experiences. The individual



whose interests are narrow and parochial will have a limited base for communication with others.

### INFLUENCE

Pepitone and Sherberg (1957) questioned the widely held view that the attractiveness of one person to a second person is a function of the degree to which he rewards or punishes the second person. They held that such a formulation is too general. They tested two hypotheses: (a) the more well-intentioned a threat, the less the loss of attractiveness in the person who threatens; and (b) the more responsible a person for threatening another person, the greater his loss of attractiveness for the person he threatens. Their data confirmed the first hypothesis, but failed to confirm the second. Thus, McGrath's proposition concerning the effect of the perception of power on attractiveness receives partial support from this study.

In the study cited earlier, Dittes (1959) found that the attractiveness of a group was related to the degree of acceptance offered by the group, but only as a function of the degree of self-esteem of the person seeking acceptance. In addition, he discovered that attractiveness of a group varies directly with need for acceptance when the group is accepting and inversely when the group is non-accepting.

Kleiner (1960) administered, to groups of students, a "test battery" presumably for the purpose of comparison with supervisory personnel in industry in group problem-solving situations. After they had completed the first part of the battery, each group was subjected to one of two estimates of the likelihood that it would lose its comparability with the criterion group and with peer groups. After the second part, each group experienced one of two modes of reduction in the likelihood of loss of comparability. This reduction was brought about by improved performance resulting from the contribution of a confederate placed in each group. Kleiner found that the increase in perceived attractiveness of the confederate varied directly with the degree to which probability of loss was reduced. Kleiner's data provide further support for McGrath's conception of a relationship between perceived power of an individual and his attractiveness.

Zander and Havelin (1960) tested assumptions that (a) persons prefer to associate with others similar to themselves in ability, in order that they might accurately evaluate their own work; and (b) they also prefer to associate with capable persons rather than with those of lesser capability, in order to improve their performance. By appropriate experimental manipulation three-member groups were allowed differing degrees

of success on a collaborative task. The authors found that attractiveness of individual group members was a function of the degree of similarity in competence; that the attractiveness of a group was directly related to the level of competence of the group; and that individuals who were divergent in the direction of high competence were more attractive than those who were divergent in the direction of low competence. These findings of Zander and Havelin provide additional support for McGrath's proposition concerning the influence of relative status and of the perceived power of the other.

Rosenfeld (1964) derived hypotheses concerning the antecedents of interpersonal choice from theories of achievement motivation and aspiration level. His hypotheses, tested in an experiment with six-member groups of male high school seniors, were that: (a) more competent persons would be perceived by a subject to be less available to him as task partners; and (b) the person whom a subject preferred as a partner would be more competent than the person he chose. Rosenfeld conceptualized two sets of motive types of choosers, the first characterized by a need for achievement versus a fear of failure and the second by a need for affiliation versus a fear of rejection. Each of these sets was conceived as an approach-avoidance dimension. Both sets were significantly related to the competence of preferred partners, but only the first set was significantly related to the competence of chosen partners. Contrary to the author's prediction, the relationships were linear. Need for affiliation, originally conceived as an approach motive, was interpreted as an approach-avoidance conflict.

Rosenfeld's study not only adds confirmation for Newcomb's and McGrath's propositions concerning the relationships between attraction and status and power, but his theoretical synthesis adds new depth to the understanding of the parameter of attraction.

### ***Implications of Studies of Influence for the Counseling Process***

The evidence presented in these studies provides strong support for McGrath's proposition concerning the effects of perceived power and status on attractiveness. It also demonstrates the interdependence of the parameters of attraction and influence, as set forth by McGrath.

As was demonstrated by Pepitone and Sherberg, whether or not a threatening communication causes an individual to lose attractiveness in the eyes of the threatened person depends on his intentions. If the threat grows out of conscious or unconscious hostility directed toward that person, he will be aware of its source and will be less attracted to the threatening individual. If, on the other hand, a threatening communica-

tion is based on the person's perception or feeling of what is to the other's advantage, no loss of attractiveness should result. The significance of Dittes' work is the evidence that, to the extent that an individual is accepting of others, they will find the relationship with him attractive and this may apply to rehabilitation counseling. The effect of a person's acceptance on his co-communicator's attraction to their relationship will be determined, in part, by the co-communicator's degree of self-esteem.

These studies of the effect of influence on attraction imply that a person's ability to mediate dyadic interaction is related to the other's perception of his status and power.

### SUMMARY

Homans, Newcomb, and McGrath are in agreement that, initially, attraction is a function of perceived similarity of attitudes concerning the self. Maintenance of attraction is a function of mutual satisfaction, in Homans' terms, or of reciprocal reward in the formulations of Newcomb and McGrath.

McGrath has postulated the interaction of several variables with perceived similarity to bring about interpersonal attraction. These include perception of relative status, the propensity of an individual for interaction, and the relative availability of an Other for interaction; an estimate of the Other's attraction to the co-communicator; topic importance; and perception of Other's power.

Newcomb has also presented a set of propositions concerning the variables which are influential in bringing about and maintaining attraction between the members of a dyad. In addition to the concepts of perceived similarity and reciprocal reward, he indicates the importance of frequency of interaction, certain combinations of personality characteristics, and measured attitudinal agreement.

The empirical data which have been reviewed above have provided almost unanimous support for the hypotheses advanced by Newcomb and McGrath. They have also provided evidence that the relationship between attraction and the variables of perceived similarity and reciprocal reward is not simple and straightforward. Rather this relationship is a complex one, subject to the influence of many other variables. Among these are affiliation need, race and prejudice, degree of communication, self-acceptance and acceptance of others, personal values, personality characteristics, ways of expressing and receiving affect, perception of the status and power of an Other, and the availability of the Other for interaction.

Other studies have indicated that mutual attraction is much easier to perceive for the members of the group in which a dyad is embedded than is unreciprocated attraction. There are indications from some experiments that accuracy of such prediction is greater for popular than for unpopular members of groups.

The combined evidence from the research reported above provides considerable support for the belief that the concept of a parameter of attraction has high utility for the study of interpersonal relationships, and that this parameter effectively integrates much of the empirical knowledge in this area.

### ***Implications of Studies of Attraction for the Counseling Process***

The evidence presented in this chapter suggests that a basis for the initiation of the client-counselor relationship may lie in perceived and actual similarity of attitudes, feelings, interests, beliefs, and needs. Two important factors in the successful initiation of this dyadic relationship appear to be: (a) the possession by the counselor of a broad range of interests and life experiences; and (b) the perception by the client that the counselor has the requisite status and power to accomplish desired goals. It is probable that the maintenance of this relationship depends upon mutual satisfaction, which results from mutual attraction. Some of the factors which may enhance mutual satisfaction are: (a) positive, accepting attitudes on the part of the counselor; (b) honest expression of feelings; (c) frequent client-counselor interaction as a means of escape from the initial bias which their respective self-concepts introduce; and (d) a friendly, insightful approach which increases the probability that the counselor will accurately perceive the feelings of the client.

To the extent that the client-counselor situation can be shown to replicate the conditions of the studies cited above, the effect of threat upon the maintenance of the client-counselor relationship depends upon the intentions of the counselor. If the counselor is motivated by concern for the welfare of the client, necessary communications which are potentially threatening will not detract from the attractiveness of the relationship. The most important lesson to be learned from the empirical evidence presented here is that the counselor must be constantly aware of himself as an object, not only of the perception of others, but of his own perception as well.

### III

## THE INFLUENCE PARAMETER

There is a great deal of variation in the extent to which individuals influence others or are influenced by them. In the dyad, each of the co-communicators has the potential ability to influence the other; and in any given situation, one member of the dyad may attempt to influence the other member. His success will depend, not only upon his own influence capabilities, but also upon the susceptibility of the other to influence attempts. McGrath (1963) refers to Hemphill's distinction between "attempts to influence," and "successful influence."

Another pertinent distinction is that made by Back (1961) between influence and authority. As Back has distinguished between these two sources of power, influence has an effect upon attitudes, while authority is capable of bringing about modifications only in behavior. The latter concept carries with it the implication of coercion, according to Back, and consequently does not offer the assurance of changes in attitudes, as does the concept of successful influence. However, Schein (1960) argues that attitudes can be modified in an indirect manner through the use of authority. He offers as evidence the treatment by Chinese Communists of United Nations' prisoners captured during the Korean conflict, and the ultimate acceptance by some of these prisoners of the Communist indoctrination. The treatment of these men involved physical privation, destruction of the primary social organization, isolation, and interference with the communication process so that they were left with no means of social reinforcement by interpersonal cues. A significant portion of the prisoners responded to this regimen by accommodating their attitudes and values to the situation as it was newly perceived by them.

Even more impressive evidence is presented by Schein in connection with the treatment of civilian political prisoners within Chinese Communist prisons. According to Schein:

... In such prisons the total regimen, consisting of physical privation, prolonged interrogation, total isolation from former relationships and sources of information,

detailed regimentation of all daily activities, and deliberate humiliation and degradation, was geared to producing a complete confession of alleged crimes, and the assumption of a penitent role depicting the adoption of a Communist frame of reference . . . (Schein, 1960, p. 154).

He quotes evidence from other sources that this process was in fact highly successful. This account provides striking evidence that authority can be used to effect not only behavioral but attitudinal changes. Thus within the parameter of influence one must recognize the necessity of dealing with the concept of power.

### THEORIES OF INFLUENCE

There are a variety of distinctions in the behavioral sciences among different types of social power or among qualitatively different processes of social influence. French and Raven (1959) have identified five major types of power and have defined these in terms of the changes they produce as well as the other effects which accompany the use of power. The latter authors treat power and influence as contingent phenomena which involve a dyadic relationship. They have chosen to formulate their theory of power within the frame of reference of the person upon whom power is exerted, while recognizing the alternative available to them of utilizing the viewpoint of the person who exerts power.

The theory of social influence and power advanced by French and Raven is limited to the influence on a single individual produced by a social agent which can be another person, a role, a norm, a group, or a part of a group. They explicitly exclude consideration of social influence exerted on a group.

They define power in terms of influence, and influence in terms of psychological change. Psychological change is defined as any alteration of the state of some system within the individual's life space over time. Amount of change is measured by the size of the difference between the states of the system at two points in time. Change is the resultant of psychological forces operating simultaneously in hyperspace. For example, change in an opinion ". . . may be determined jointly by a driving force induced by another person, a restraining force corresponding to anchorage in a group opinion, and an own force stemming from the person's needs" (French and Raven, 1959, p. 151).

Influence is defined as the resultant force on a system in the life space of the individual which is induced by an act of a social agent. There are two components of this resultant force. The first of these is a force to change the system in the desired direction. The second is an opposing force set up by the same act. According to French and Raven, psychological change can be taken as an operational definition of the

social influence of a specific agent only if the effects of other forces have been eliminated.

When the agent intends to exert influence in a given direction, the influence actually exerted need not be in that direction. French and Raven term the resultant force in the intended direction positive influence and that in the opposite direction negative influence. The strength of power of a social agent is defined as the maximum potential ability of that agent to influence an individual. By this definition, as power is potential influence, influence is power in action.

French and Raven conceptualize psychological change and stability in terms of dynamic dependence. The internalization of social norms thus becomes a process of decreasing dependence of behavior on external forces and increasing dependence on internal values. Internalization is assumed to be accompanied by a decrease in the effect of the level of observability. The dependence of a system on an external force and observability as a basis for this dependence largely account for the stability of conformity.

The basis of power, for French and Raven, is the relationship between an individual and a social agent which is the source of that power. Power is rarely attributable to a single source. Usually one can identify several qualitatively different variables in a relationship which are components of the power base. French and Raven make clear that the five variables with which they deal do not comprise a complete list, but are rather types of power which seem especially common and important. They are: (a) reward power, which is based upon a person's perception that another person has the ability to mediate rewards for him; (b) coercive power, which is based upon perceived ability to mediate punishment; (c) legitimate power, which is based upon the perception of a legitimate right to prescribe behavior; (d) referent power, which is based upon identification; and (e) expert power, which is based upon perceived special knowledge or expertise (French and Raven, 1959).

As a result of their identification of these five types of power, French and Raven were led to promulgate the following hypotheses:

1. For all five types, the stronger the basis of power the greater the power.
2. For any type of power the size of the range may vary greatly, but in general referent power will have the broadest range.
3. Any attempt to utilize power outside the range of power will tend to reduce the power.
4. A new state of a system produced by reward power or coercive power will be highly dependent on O [the social agent] and the more observable P's [person's] conformity, the more dependent the state. For the other three types of power, the new state is usually dependent, at least in the beginning, but in any case the level of observability has no effect on the degree of dependence.

5. Coercion results in decreased attraction of P toward O and high resistance; reward power results in increased attraction and low resistance.
6. The more legitimate the coercion the less it will produce resistance and decreased attraction (French and Raven, 1959, p. 165).

Although the concept of power can be subsumed within McGrath's formulation of the parameter of influence, he has not taken direct cognizance of it. However, his dimensions of status and structure of the situation (McGrath, 1963) may have been intended to provide for the effect of power. Cartwright (1959) has pointed out that power is a neglected variable in behavioral science studies, and that social psychologists have tended to deal with the "softer" aspects of power. For example, they are more interested in authoritarianism than in authority in an interpersonal situation.

In his theoretical development of the influence parameter, McGrath has stated that the probability that a given individual will attempt to influence another, or that he will be influenced by that other, is a function of:

- (a) [Person's] . . . attraction (affect) toward the potential target (or source) of influence . . . ;
- (b) [Person's] . . . perception of his status relative to . . . [Other];
- (c) the joint predispositions of . . . [Person] and . . . [Other] toward interaction, which is a necessary condition for receiving or attempting influence;
- (d) . . . the state of agreement between . . . [the co-communicators] on the subject(s) about which interaction is occurring; and
- (e) structural aspects of the social and physical environment . . . (McGrath, 1963, p. 96).

McGrath suggests that the flow of influence between co-communicators should be dealt with in probability terms, because the propensity to influence or to be influenced is relative to the total interaction situation. Some of the variables which are operant within the parameter of influence will be considered in the sections which follow.

## STATUS

Jaffe and Slote (1958) studied the denial of illness as an interpersonal phenomenon, utilizing structured interviews and a content analysis of patient responses. They found that experimental variation of the examiner's denial attitudes caused a significant change in the degree of denial expressed by the group of hospitalized patients studied. Overall change was in the direction of compliance with the examiner's attitude. Their results indicate that status, as an experimental variable, is related to influence.

Steiner and Field (1960) tested the effect of role assignment on interpersonal influence. They administered an instrument, designed to assess attitudes toward school desegregation, to a group of ninety-five



male college students. From this group sixty-eight students, whose scores indicated that they favored non-segregation, were chosen as subjects in a laboratory experiment.

Three-person groups, each consisting of two subjects drawn from this sample and another college student who served as an accomplice of the experimenter, engaged in fifteen-minute discussions of desegregation. In half of the groups the subjects were assigned roles as either northern clergymen or NAACP members. The accomplice always took the role of a southern segregationist in these groups. In the other half of the groups, participants, although they were not assigned specific roles, were asked to make certain that the views of these three kinds of persons were presented in their discussions. In these groups the accomplice endeavored to introduce some segregationist views.

Steiner and Field found that, in the groups which did not have assigned roles, the naive subjects had greater confidence in their evaluation of the accomplices' attitudes, indicated a higher degree of sociometric preference for one another, produced shorter communications, and yielded more to the segregationist arguments expressed by the accomplice. They concluded that group members' perceptions of each other are strongly influenced by role assignments. As a consequence, members' responses to the behavior of other group members were determined to a great extent by role assignments. These findings suggest that, with increased ambiguity of status of group members, there is a concomitant increase in susceptibility to influence.

DiVesta, Meyer, and Mills (1964) studied the effects of the apparent certainty of expert judgment, of the type of expert, and of the pleasantness of the judgment to the recipient on perceived status of the expert. Using a modified Latin square design, they involved 240 subjects in a role-playing situation in which expert behavior, certainty of judgments, and pleasantness of information were varied systematically. They found that the expert who collected information, was certain in his judgments, and relayed pleasant information to the subjects, elicited more confidence than did the expert who did not seek information, appeared uncertain, and produced unpleasant information. There was a significant interaction between degree of certainty and pleasantness of information. The interaction between type of judgment and expert's certainty was significant only for unpleasant judgments. These data suggest that the relationship between status and influence is a complex function involving variables such as personality and behavior characteristics.

Katz, Libby, and Strodbeck (1964) conducted an experiment to learn about the way in which a group would handle conforming behavior

of one of its members which threatened the status of others. Contrary to prior evidence that conformity is always rewarded, they found that high status members whose rank was threatened by the conformity of a previously deviant member did not reward the conforming behavior. Further, even high status members who claimed that they were not aware of the conforming behavior gave a lower rank than they had previously to the member whose behavior was now conforming. The rankings given by lower status members were not affected in this way by the change in behavior. Thus, conforming behavior which threatens to disrupt the status hierarchy of a group is seen to have a differential effect on the tendency to give or withhold rewards to the disruptive member. High status members do not reward such behavior, whereas the reaction of low status members is not affected by this change. Again, the complexity of the relationship between status and influence is demonstrated.

Sabath (1964) established twenty five-member groups, each of which was involved in a discussion and a dowel-sorting task. An accomplice in each group presented himself as having either high or low status. During the sorting activity, the accomplice engaged in disruptive behavior followed by other activity which either enhanced or impeded the functioning of the group. Sabath found that confederates who had represented themselves as having high status were viewed in a generally favorable manner regardless of their behavior, while those confederates who had indicated that their status was low were accorded favorable regard only if their subsequent performance enhanced the functioning of the group. This finding supports the propositions of Thibaut and Kelley (1959) and Homans (1950) that group members who are accorded high status can violate the social norms with impunity, while those of lower status may be subject to sanctions if they engage in the same behavior. This provides further evidence of the complexity of the relationship between status and influence.

Martin (1964) investigated the relative effect of peer group pressure and expert group pressure on the persuasibility of sophomore and senior adolescents in a conflict situation. It was determined that similarity of opinion was more influential than the status of either peer or expert pressure groups.

### ***Implications of Studies of Status for the Counseling Process***

The evidence from this group of studies indicates that there is a relationship between the status of a communicator and his ability to exert influence. However, this relationship is not a simple and straightforward one. It is subject to the concomitant effects of differences in character-

istics of the communicator and ambiguity concerning the relative status of the group members. Group members who are accorded either high or low status are less subject to the influence of group norms, and are less liable to sanctions if they fail to conform. Those members who are accorded middle status in the group are more susceptible to influence by social agents.

Although these studies demonstrate that status has an effect on the exercise of influence in groups, Martin's findings indicate that similarity of attitudes may be a more potent variable in either the enhancement or the restriction of influence. McGrath's argument for the complex interrelationship between the variables which are operant in interpersonal situations is thus given further support.

The rehabilitation counselor typically interacts with people from all socio-economic levels and from a variety of subcultures. The handicapped, themselves, in some sense constitute a subculture (Barker, 1948; Wright, 1960). In fact, Cowen, Unterberg, and Verillo (1958) found that negative attitudes toward visually handicapped persons were significantly correlated with negative attitudes toward Negroes and other minority groups. Frequently, attitudes toward self and others, as well as value systems in general, are markedly different in socially differentiated groups from those shared by members of the middle-class majority. The counselor should recognize the possibility that the use of status as a source of influence will not be effective when status discrepancy is emphasized in the situation.

In initial interaction, the counselor who collects information, appears certain in his judgments, and relays pleasant information, would probably be perceived by his clients as an expert. On the basis of the evidence cited above, he would be expected to have more influence in early client-counselor interactions than the counselor who appears unsure of himself, uninterested in the information the client has to offer, and who presents unpleasant information.

Handicapped individuals are often drawn to seek a helping relationship on the basis of the ascribed status of the rehabilitation counselor. However, the data suggest that to the extent that the situations are comparable, status accorded by the client on the basis of the manifest competence of the counselor will yield more success in achieving influence than will continuing reliance on ascribed status.

### SIMILARITY

The effect of modeling oneself upon another, through introjection and projection, on the development of similarity among persons was

studied by Stotland, Zander, and Natsoulas (1961). The experimenters tested two hypotheses: (a) The greater the number of first similar attributes (attributes of others which are perceived as similar to own self-concept attributes) in a person's perception of himself and another individual, the greater is the tendency to introject these attributes and conceive of self as similar to the other person. (b) The greater the number of first similar attributes in a person's perception of another individual and himself, the greater is the tendency to project these attributes and conceive of the other person as similar to the self.

Female subjects working in isolation were led to believe that they were third members of three-person groups, and under this condition were asked to write their preferences among eight pairs of brief tunes. After they had made their choices within each pair, they listened over ear-phones as the other two members of the group stated their preferences. Each subject came to perceive that her choices were more similar to those of one of the members than to those of the other. The subjects next heard the other group members choose one or the other of each of several pairs of nonsense syllables and then were asked to state their preferences.

The experimenters found, as they had hypothesized, that the subjects tended to prefer the nonsense syllables chosen by the group member (voice) with whom they had agreed most often on musical preferences. Perceived similarity is shown, in these findings, to have had an effect on influence.

In a study dealing with the relationship between authoritarianism and accuracy of interpersonal perception, Crockett and Meidinger (1956) drew subjects from three classes in general psychology and from the residents of a men's dormitory. Pairs of subjects were asked to discuss for twenty minutes either radio, television, or movies. Each subject had previously completed the F Scale of the Berkeley Public Opinion Questionnaire (Adorno, Frenkel-Brunswik, Levinson, and Sanford, 1950). After the discussion the subjects were asked to fill out the F Scale again, this time as they believed their partners in the discussion would respond to it.

Earlier investigators had advanced an explanatory proposition which accounted for perceptual distortions in the direction of exaggerated and extended similarities, on the basis of projection, between high F Scale subjects and their discussion partners. This distortion was linked to the strong need of these individuals to identify with an in-group of superior status. Crockett and Meidinger found that high F Scale subjects were no more likely than low F Scale subjects to have high assumed similarity scores.

In other respects the results of the present study were very similar to those of the earlier experiments. A possible explanation offered by Crockett and Meidinger assumes that, ". . . agreement with a number of F Scale items is characteristic of many fundamentalist and conservative social, religious, and political groups in our society . . ." (Crockett and Meidinger, 1956, p. 380). A high F Scale subject whose social experiences have been principally within such groups and who has had little experience with outspoken proponents of contradictory views is likely to believe that any given person will agree with him unless he has direct information to the contrary. Status is again shown, by the results obtained by Crockett and Meidinger, to be less effective than perceived similarity as a determinant of influence.

Croner and Willis (1961) investigated the effect of perceived task similarity and perceived differences in task competence on the asymmetry of influence within dyads. They conducted two experiments in which they first induced perceptions of different levels of competence between the members of dyads. They then subjected each pair to a judging situation which they intended to be perceived as similar to the prior task. In the first experiment Croner and Willis were unable to demonstrate asymmetry of influence. They attributed this failure to an apparent lack of perceived similarity between tasks.

In their second experiment they introduced a new preliminary task and rewrote the instructions to enhance the perceptions of task similarity. In the latter experiment asymmetry of influence was demonstrated at a high level of significance. They concluded that the interaction of perceived task similarity and task competence has a crucial effect on the amount and direction of social influence.

Dabbs (1964) predicted that characteristic modes of defense would cause different subjects to resist influence from different kinds of communications. In a three-way factorial design, eighty-eight subjects representing high and low self-esteem were exposed to optimistic and pessimistic communications from communicators who were presented as "copers" or "non-copers." Contrary to the experimenter's expectations, the optimism-pessimism variable produced no effect. However, characteristics of the communicator interacted with characteristics of subjects to produce attitude change. High-esteem subjects were more influenced by the copers, while low-esteem subjects were more influenced by the non-coper, even though all subjects evaluated the latter unfavorably. Further study led to the conclusion that subjects high and low in self-esteem were themselves copers and non-copers respectively. Subjects appeared to accept persuasive influence from the communicator more comparable

to themselves, without regard to their conscious feelings toward him. Evidence is provided for the effect of similarity of self-attitudes, both perceived and measured, upon the tendency to be influenced.

An adult model was presented by Burstein, Stotland, and Zander (1961) to groups of grade school children under two different conditions. In one condition he was described as having a background and other attributes of either high or low similarity to those of the children. In the other condition the perception of high or low similarity was not induced. Each of these groups was further subdivided. To one-half of each group the model described himself as possessing high task ability. To the other half he described himself as having low task ability. To all groups he also described some of his task-related preferences.

These investigators found that perceived similarity in background was directly related to the influence of the model upon acceptance of his preferences by the subjects. A further finding was that subjects high in self-esteem were differentially affected by their perception of the ability of the model. High self-esteem subjects were influenced by the high-ability model to change their preferences in the direction of increased similarity, even though he had told them he was not similar in background. However, a group of high self-esteem subjects who were exposed to a low-ability model lowered their self-evaluation. Where the condition of perceived similarity was absent, the task ability of the model was directly related to his influence upon the subjects' acceptance of his preferences and upon their projection of their own preferences onto the model. Under all experimental conditions, low self-esteem subjects seemed not to react to the influence of the model to any marked degree.

The conclusions to be drawn from this study are in accord with previous findings that the relationship between influence and similarity, or perceived similarity, of attributes is not a straight-line function. The curvilinear relationship demonstrated by previous investigators may more appropriately describe influence phenomena.

### *Implications of Studies of Similarity for the Counseling Process*

There are apparent contradictions among the results obtained by Croner and Willis (1961) and Dabbs (1964), and those of Burstein, Stotland, and Zander (1961). Croner and Willis, and Dabbs, found that differences in perceived competence produced differences in influence by communicators who were perceived as similar to their subjects. On the other hand, Burstein, Stotland and Zander were able to produce effects of influence only in their high self-esteem subjects, whereas their low self-esteem subjects did not respond to influence under any experi-

mental condition. The need for more experimental study of the variables of self-attitude and perceived similarity as they relate to the influence parameter is demonstrated.

Implicit in the contradictory findings concerning the relative effects of self-attitudes and perceived similarity on influence is a suggestion for the rehabilitation counselor. Influence is more likely to be predicated upon the accurate perception of similarities than upon the awareness of discrepancies in abilities, attitudes, beliefs, or feelings. The counselor who emphasizes these latter discrepancies is almost certain to alienate rather than influence his clients.

### CONFORMITY

Thibaut and Strickland (1956) found that when the psychological set of a group member is to maintain or achieve membership in the group, he will respond to increasing degrees of conformity pressure by increasing amounts of conformity behavior.

It was reported by Frye and Bass (1963) that high scorers on a scale of social acquiescence, when they were placed in a group problem-solving situation, were more prone to accept whatever group decision was reached, and to increase in agreement with others during discussion, than were subjects who obtained low scores.

Reitan and Shaw (1964) conducted an experiment to study the effects of group membership and sex-composition of the group upon conformity to majority judgments of Asch-type stimuli. They found group membership to be unrelated to conformity. They suggested that this might have been due to the unreliability of their measure of group membership. Both sex and sex-composition of groups were related to conformity. Females conformed more than males, and both males and females conformed more in mixed-sex than in same-sex groups.

It was hypothesized by London and Lim (1964) that individual conformity to majority judgments in a small group would increase directly with task difficulty and indoctrination instructions. Subjects were given the task of selecting the proper response to multiple-choice syllogisms. Complexity of the syllogisms was varied. Three types of experimental instructions were used. These were: naive, indoctrination, and immunization.

Analyses of variance indicated that subjects differed significantly in their degree of conformity depending on the complexity of the syllogisms presented to them. Varying the instructions did not induce significant differences between groups. Control groups, members of which performed the experimental task, did not differ significantly from each

other, but they did differ from the experimental groups which received the parallel syllogism types.

Garai (1964) used an Asch-type situation with four experimental groups and one control group, each composed of twelve college students. The naive subject in each group was confronted with a unanimous majority in disagreement with his judgment in twelve of eighteen instances concerning the seriousness of minor and major offenses. The manipulated variable in this study was the nature of appeals to conform or to remain independent. Direct appeals were compared with indirect appeals disguised as essays presented as a test of "literary evaluation" of written answers.

Garai found that significantly more subjects were swayed toward conformity than toward independence in making judgments concerning minor offenses. The disguised appeal, although the critical subjects did not perceive it as pertinent to the judgmental situation, was significantly more effective in swaying them toward conformity than the direct appeal.

In Garai's experiment, as in that of Steiner and Field (1960) concerning ambiguity of status, it becomes apparent that an ambiguous manipulated variable is more effective in influencing the subject's attitudes and behavior than is an unambiguous presentation.

Harper and Tuddenham (1964) tested the hypothesis that a group of close mutual friends would yield more to a distorted group norm than would a group composed of non-preferred others. On the basis of their responses to a sociometric questionnaire, student nurses were assigned to groups in an Asch-type social influence experiment. The stimuli were simple perceptual problems. Results of the study indicated that yielding was unaffected by the emotional composition of the groups. It would appear that group influence toward conformity is less a function of interpersonal attraction than of individual personality characteristics.

Linde and Patterson (1964) conducted an experiment to measure the effect of severe orthopedic disability upon conformity behavior. The purpose of the experiment was to determine whether or not individuals who were disabled would yield more to unanimously incorrect confederate opinion than would able-bodied men. The Asch technique was employed with two control groups and two experimental groups. The control groups were either able-bodied or disabled. The experimental groups employed confederates whose condition contrasted with that of the naive subjects. The data indicate that disabled men yield less to able-bodied confederates than they do to disabled confederates. A further finding was that there was more conformity in homogeneous groups than in non-homogeneous groups. The work of Linde and Patterson indicates that



observed similarity of overt characteristics may be influential in inducing conforming behavior.

Two alternative hypotheses were tested by Gorfain (1964) in still another Asch-type experiment. The first of these was that the presence of a compromise partner in a group-influence attempt at attitude change will weaken the effect of the group. The second hypothesis was that the compromise partner will enhance the effect of the group. The latter proposition was based on the assumption that a non-unanimous group might be more credible to the critical subject. Gorfain found that the presence of a partner whose judgments deviated from those of the majority produced trends in the direction of enhancement of the influence attempt.

The manipulated variable which is rendered ambiguous in this study is the state of agreement of the co-communicators concerning the topic which is the focus of interaction. Once more ambiguity is shown to be an important determinant of influence in interpersonal relationships.

#### *Implications of Studies of Conformity for the Counseling Process*

The effect of group influence in producing conforming behavior has a long history in psychological studies, dating from the early work of Sherif (1935) and Asch (1951). The studies reviewed here indicate that any one of a number of personality and situational variables may mediate the effect of social influence upon conformity. Persons high in measured social acquiescence have been found to be especially susceptible to influence. Females have been shown, in a particular situation, to yield more to group pressures than did males. It is likely that these two phenomena are related. The ascribed female role in our society probably leads to a higher degree of social acquiescence. One of the studies seems to support the interpretation that personality characteristics in general have a greater effect on conforming behavior than does interpersonal attraction. Another study, dealing with the effect of observed physical disability, indicated that an overt communality may contribute to the effect of influence on conformity.

Perhaps the most significant insight to be gained from an analysis of this group of papers is that an effect previously unidentified in this context accounts for many of the experimental results reported. This effect, ambiguity, was found in the manipulation of task difficulty, the direct or indirect nature of an influence attempt, and state of agreement of members of a group. It would appear that, as the ambiguity of the manipulated variable increases, the tendency toward conformity also increases.

## CHANGE

Festinger and Thibaut (1951) tested the hypotheses that: (a) If the group has a property of tending toward uniformity of state, any discrepancy among the different parts of the group will give rise to forces which will be exerted on parts of the group to change their state in such a way as to reestablish uniformity. The strength of these forces will be a function of the magnitude of the tendency toward uniformity which the group possesses. (b) The force to change exerted on any particular part of the group is also a direct function of the discrepancies in state between this part and all other parts of the group.

Undergraduate college students served as subjects in small groups on which pressure was exerted for opinion change. These authors found that when there was a range of opinion in the group, communications tended to be directed toward those members whose opinions were in the extremes of the range. The greater the pressure toward uniformity and the greater the perception of homogeneous group-composition, the greater was the tendency to communicate to those members who held the extreme opinions, and the greater was the change toward uniformity which actually occurred.

Stotland and Zander (1958) examined the effect of variations in strength of social pressures, directed toward lowering of self-evaluations, upon the evaluations an individual assigns to the quality of his performance and abilities after he has failed a task. They concluded that strong social pressures, acting upon a person toward lower evaluations, cause more lowering in his evaluation of his abilities when the person is strongly motivated to keep his evaluations high than when he has little motivation to keep these evaluations high.

From theoretical analyses by Newcomb (1955) and by Festinger (1955), Fauquier and Vinacke (1964) derived four hypotheses concerning the effects of variation in mutual attraction, and in orientation toward an issue, upon amount of communication and degree of opinion change in dyads. Their hypotheses were:

- I. The greater the discrepancy in the orientations of two persons toward an object with reference to which they are interacting, the more frequent will be their communicative acts.
- II. The greater the attraction between two persons, the more numerous will be their communicative acts.
- III. The greater the discrepancy in the orientations of two persons toward an object with reference to which they are interacting, the greater will be their resistance to changing opinion toward uniformity.
- IV. The greater the attraction between two persons, the less will be their resistance to changing opinion toward uniformity (Fauquier and Vinacke, 1964, p. 297).

Forty pairs of subjects engaged in discussions about their attitudes toward the church. High and Low mutual attraction were manipulated by alleged matching on a personality scale. Similarity and difference of opinion about the church were manipulated by means of the Thurstone and Chave Experimental Study of Attitudes Toward the Church (Thurstone and Chave, 1929). The four combinations of these conditions produced four experimental groups with ten pairs in each group.

The results of this experiment provided strong support for the hypotheses concerning the relationship between mutuality of attraction and number of communicative acts, and that concerning discrepancy in orientation toward an issue and resistance to change toward uniformity. Hypotheses concerning the relationship between discrepancy in orientation and frequency of communicative acts, and that between mutuality of attraction and resistance to change were not supported by the data.

Fauquier and Vinacke reached the conclusion that high attraction is associated with a high degree of communication, but that opinion change toward uniformity is a function, not of attraction, but of discrepancy in orientation. Conversely, discrepancy in orientation is associated with resistance to change toward uniformity, and positive opinion change is associated with similarity of orientation. However, amount of communication is a function, not of orientation to an object, but of perceived attraction.

The discovery by Fauquier and Vinacke, that their subjects were not more easily influenced by more attractive persons than by less attractive persons, is similar to that of Harper and Tuddenham (1964) referred to above. These results would appear to have been predictable from Newcomb's (1956) earlier data, discussed in a prior section of this monograph. The latter investigator found that the correlation between similarity of attitudes and attraction increased from minimal to high significance through a four-month period of acquaintanceship.

McGrath (1963) has not specified the nature of the relationship between influence and attraction beyond the general assertion that they will vary together. These variables do not interact in isolation, however. He indicates that other variables exert their effects concurrently.

French and Raven (1959) suggest that if coercive means are used to influence an individual, attraction will be decreased and resistance will be increased; if reward is used to reinforce an influence attempt, the result will be increased attraction and lowered resistance. Thus it becomes increasingly evident that, even though the variables which interact to produce influence may be specified, the description of the nature and effect of their interaction is a much more difficult and involved task.

In a study cited earlier, Gorfein (1964) found that the presence in a group of a member whose judgment deviated from that of the majority tended to enhance the attempt of the group to influence a change of attitude on the part of the critical subject. The results of Gorfein's investigation, like those of the other studies discussed in this section, demonstrate that the presence of ambiguity in the interpersonal situation has a strong effect on the outcomes of attempts to influence attitudes and opinions. The work of Stotland and Zander (1958) demonstrates that this is particularly true when the emotional need of the individual who is the subject of influence attempts is in the direction of the reduction of ambiguity.

### ***Implications of Studies of Change for the Counseling Process***

It is apparently easy to specify the conditions under which conforming behavior can be produced. However, it seems virtually impossible to make a definitive statement concerning the strategy which will bring about a change in an attitude or opinion. If the individual's objective is to induce a change in his co-communicator's attitudes or opinions, he is more apt to succeed under conditions of mutual attraction, a high degree of co-communicator involvement in the overall goals of the dyad, and a strong need on the part of the co-communicator to reduce ambiguity. The use of rewards, if they are available to him, will improve his chances of success. If the individual resorts to persuasion or other coercive measures in the attempt to influence co-communicator opinion, he will in all likelihood induce increased resistance to change. Thus it is clear that the individual has little direct control over the conditions which will produce change in the attitudes or opinions of another person.

### **PERSONALITY CHARACTERISTICS**

In their previously cited report, Crockett and Meidinger (1956) tested hypotheses of earlier investigators that authoritarians defined as high scorers on the California F Scale (Adorno et al., 1950) have a strong need to identify with an in-group of superior status which results in perceptual distortions. These distortions are supposed to serve the function of exaggerating and extending the similarities between themselves and their peers. Crockett and Meidinger were not able to confirm this hypothesis. They found that high F subjects were no more likely than low F subjects to have high assumed similarity scores.

Smith (1964) divided a sample of authoritarian subjects into high- and low-anxiety groups on the basis of performance on the Taylor Manifest Anxiety Scale (Taylor, 1951). The subjects were then placed in a small-group situation involving a forced alliance with a minority-group

member. The high-anxious authoritarians yielded significantly more to the majority opinion on a line-judging task than did the members of a control group. This difference could not be demonstrated for the low-anxious authoritarians. The high-anxious group was also differentiated from the control group by post-experimental negative attitudes toward the minority-group members, as well as in attitudes expressed toward other minority groups on a Bogardus-type scale. Smith was again unable to find such differences for the low-anxious authoritarians.

Becker (1964) administered the Edwards Personal Preference Scale (Edwards, 1959) and the California F Scale (Adorno, et al., 1950) to thirty-nine recently married or engaged couples to test the prediction that mean F scores of dyads would correlate positively with Dominance-Difference scores. His data disclosed a curvilinear relationship between these variables. Couples whose Dominance-Difference scores were in the medium range had lower F scores than either high or low Dominance-Difference couples. Becker found personality correlates which differentiated among the three groups. He characterized the Low Dominance-Difference subjects as socially dependent and extraverted. Medium Dominance-Difference dyads tended to be high achievers and socially independent, while High Dominance-Difference couples were socially dependent and introverted.

Rim (1964) studied the effect of group discussions on individual and group decisions and risk-taking. He found significant relationships between risk-taking and two dimensions of personality: radicalism-conservatism and tendermindedness-toughmindedness. Subjects high in toughmindedness and average in radicalism-conservatism tended to take greater risks on initial decisions. Subjects high in radicalism and tendermindedness shifted more toward willingness to take risks as a result of group discussion. Conservative and toughminded subjects tended to become more cautious through group discussion. Individuals whose scores in both radicalism and tendermindedness were above average had the greatest influence on decision-making in group discussions. Implicit in Rim's findings is the suggestion that subjects who are high in the personality traits of radicalism and tendermindedness are both more readily influenced and more influential in final group decisions than are subjects who are either toughminded or conservative.

#### ***Implications of Studies of Personality Characteristics for the Counseling Process***

Thus, it is seen that personality characteristics do have an effect on the influence parameter, as the previously cited study of Harper and Tuddenham (1964) would suggest. Frye and Bass (1963) have added

further support for this proposition with their findings concerning the effect of social acquiescence. However, this effect is not simple and direct, but is almost always mediated by that of some other variable.

The failure of Crockett and Meidinger (1956) to relate the tendency to be influenced to the personality trait of authoritarianism is illuminated by the work of Smith (1964) and of Becker (1964). These latter investigators have demonstrated that authoritarianism is not a straight-line dimension. Its effect on the tendency to influence or be influenced is more readily seen when it is studied in conjunction with that of other personality variables such as anxiety and social dependence.

The counselor should be aware of the evidence that there is an optimal level of anxiety which can serve as a catalyst in the counseling process. An individual who is characterized by rigidity cannot be reached therapeutically unless his rigidity is accompanied by anxiety or unless a moderate degree of relevant anxiety can be induced.

The studies reviewed suggest the hypothesis that the counselor's own personality characteristics have a significant bearing upon the flow of influence in the dyad. To the extent that he is flexible and open to client communication, he will tend to be influenced by the client's attitudes but he will also be more influential in modifying these attitudes.

### SELF-EVALUATION

In their study cited above, Stotland and Zander (1958) demonstrated that self-evaluation is affected by social pressures as a function of strength of motivation to maintain a positive evaluation of the self. Subjects were exposed to a failure situation and subsequent social pressures to lower their own evaluation of their performance and abilities. Those subjects who were motivated to maintain a high level of self-evaluation were more susceptible to the effects of such pressures than were subjects who had little motivation to maintain such a level.

In their study reported under the rubric of similarity, Burstein, Stotland, and Zander (1961) found that subjects high in self-esteem were influenced by a high-ability model to change their preferences in the direction of increased similarity. A comparable group of subjects who were exposed to a low-ability model reacted by lowering their self-evaluation. However, low self-esteem subjects did not seem to react to the influence of the model under either experimental condition.

In a similar study, also discussed above, Dabbs (1964) obtained results which, although they do not entirely contradict those of Burstein and his associates, do not parallel them. Dabbs' subjects, whether high

or low in self-esteem, were susceptible to the influence of communicators whom they perceived as comparable to themselves.

Maehr and Mensing (1962) designed a study to test the hypothesis that the evaluation expressed by others acts to bring about related changes in the individual's self-concept. Their results indicated that the approving and disapproving reactions of significant others were followed by corresponding increases and decreases in subjects' evaluations of themselves. This research is a replication of an earlier study by Videbeck (1960). The findings contradict those of Videbeck in only one major respect. The latter author had found disapproval to produce a greater absolute change upon self-regard than did approval. In both investigations the variable of social approval-social disapproval was manipulated along the dimension of relevance. Both demonstrated that the influence of this variable upon self-regard diminished as its relevance decreased.

An experiment by Cox and Bauer (1964) was designed to study the relationship between success in persuasion and self-confidence in the objects of attempts to persuade. These authors note that repeated investigations have demonstrated a relationship between low self-esteem and persuasibility in males, but that this finding has not held for females. They also report an established finding that low self-confidence with respect to a specific influence situation is related to persuasibility in both males and females. They direct attention to the different kinds of explanations which have been advanced to account for these relationships under the different conditions of generalized and specific low self-confidence. In the former instance explanations have usually focused upon ego-defense. In the latter, they have been centered upon problem-solving.

Cox and Bauer were interested in what happens when both generalized and specific self-confidence are studied in relation to the same influence situation. They found that, in a female population, there is a curvilinear relationship between persuasibility and both specific and generalized self-confidence. On the strength of these results, they suggest that the linear relationship previously found among male subjects also requires re-examination. The crucial aspect of the relationship between self-esteem and the propensity to be influenced appears to be the need for high self-esteem rather than a demonstrable condition of high or low self-esteem. This need may be related to either high or low self-esteem. Cox and Bauer (1964) did not vary the ambiguity of the task situation in their study. The results obtained by London and Lim (1964) suggest that the effect of task ambiguity may be significant in determining the tendency to yield to influence.

### ***Implications of Studies of Self-Evaluation for the Counseling Process***

The importance of the foregoing studies for the counselor lies in the empirical demonstration that a need for high self-esteem makes the individual susceptible to influence. The person who is seeking to exert influence cannot assume that this need will be equally strong in all of his co-communicators. However, where it exists, rewarding the need for high self-esteem will open up opportunities for influence. If the object of influence attempts is not helped to fulfill this need, the probability of further interaction and consequently the probability of exerting influence may be reduced.

If an individual has established himself as a significant figure in the life space of another person, his behavior will influence that other's self-evaluation. If he has not, his influence attempts will be irrelevant.

#### **SUMMARY**

This chapter has been devoted to a review of investigations into the effects of the numerous variables which interact to establish and maintain the influence of a social agent upon an individual. These studies appear to support the position of French and Raven (1959) that influence is a resultant of multiple psychological forces operating in a dyadic relationship. McGrath (1963) also takes the position that influence is the product of the interaction of many attitudinal, situational, and process variables.

Individual studies reported here have been categorized arbitrarily. There is much overlapping and a given piece of research may be found to fit equally well into one or more of the chosen categories. The topics under which reports have been summarized are: status, similarity, conformity, change, personality characteristics, and self-evaluation. Each of these variables has been shown, in several instances, to have an effect upon the tendency to influence or be influenced. More significantly, it has been demonstrated that they do not operate independently. As McGrath has stated repeatedly, the finding most worthy of note is the interdependence of parameters, and variables within these parameters, which constitute the area of interpersonal relationships.

The majority of the research reported in this review of the parameter of influence has dealt with referent power, in French and Raven's (1959) terminology. Some few studies have utilized expert power or reward power. Schein (1960) is one of the few workers in this area who has dealt with coercive power. He has demonstrated that, under appropriate management, such power comes to be perceived as legitimate. As has



been noted above, Cartwright (1959) deplors the lack of investigation of the more naked forms of power. It is not surprising, however, in a social order in which research workers are criticized for such relatively minor ethical deviations as deception of subjects, that experiments which would directly compare the effects of coercion with those achieved through the use of more subtle modes of power are avoided.

An interpretation, which appears to be supported by the results of many of the investigations reviewed in this section, is that an underlying phenomenon in many successful influence attempts is the ambiguity of the manipulated variable. More than twenty years ago, Luchins (1945) demonstrated that the more vague or indefinite a stimulus object, the more a response to that object was subject to the influence of group pressure or suggestion. Thrasher (1954) also found that subjects placed more reliance on social factors as the stimulus situation in his study became more ambiguous. Schein (1960), in the development of his theory of influence based on social alienation, has described the Chinese Communist technique of reduction of interpersonal cues. This process rendered their prisoners' situation ambiguous. However, the pervasive effect of ambiguity does not appear to have been recognized by most investigators of the parameter of influence.

#### ***Implications of Studies of Influence for the Counseling Process***

There appear to be three sources of influence in initial dyadic interactions which are available to the person who aspires to wield influence. These are ascribed status; a pleasant, interested and supportive manner; and qualities of flexibility and openness to communication. There are four characteristics of the objects of influence attempts which contribute to the probability that the person who aspires to wield influence in initial interaction will be successful. These characteristics are: a moderate level of anxiety, a need to enhance self-esteem, a strong need to reduce ambiguity, and perceived similarity of attitudes.

These same object characteristics are important in the maintenance of influence, but the sources of influence on which the wielder of influence must rely are somewhat different. In an established relationship, ascribed status is no longer a viable source of influence. The individual, to maintain high status, must demonstrate task competence. However, if demonstrated task competence leads to a perceived discrepancy in status, the individual will lose this source of influence. As French and Raven (1959) have pointed out, power which is used outside the range of power reduces power. It appears then that the aspirant to influence must maintain an ambiguous role with respect to task competence. His influence is further

strengthened if he can also maintain the ambiguity of the interpersonal situation. Similarity of attitudes and flexibility are as important in the maintenance of influence, as they are in its initiation. If the individual becomes a significant figure in the life space of the other, his potentiality for influence will be enhanced.

Cartwright (1959) has stated that psychologists have shied away from the study of power. Those investigators who have dealt with this variable have treated what Cartwright refers to as its softer aspects. Many individuals who engage in helping relationships go so far as to disclaim the possession of power or influence in the lives of their clients. This disclaimer is not supported by the empirical evidence. In any interpersonal relationship the three interdependent parameters of influence, attraction, and interaction do appear to operate. Counselors must recognize that they have the capability of influencing clients' attitudes; opinions; judgments; decisions; and, ultimately, their value processes.

The cold, hard fact is that the effective counselor does have influence. He cannot escape the use of his influence, consciously or unwittingly, to intervene in the life processes of his clients. This raises serious moral issues. First, toward what goals is his influence to be directed? Second, whose is the right to establish these goals — client, counselor, agency, society? It is not intended to offer answers to these issues. It is doubtful that ultimate answers can be found. A value judgment, growing out of interpretation of the evidence, is that the counselor must be completely aware of the influence which accrues to his position in society. Further, each counselor must decide for himself whose goals he will further. No one else can assume this ethical responsibility for him.

## IV

### THE INTERACTION PARAMETER

Sears (1951) has deplored the fact that, although psychologists have professed concern with the effects of social influences on the individual, they have chosen as the subject matter of their investigations the behavior of a person out of his social and interpersonal context. Sears has called for the development of a theoretical system which would deal with individual and social behavior in combination. He points out that some sociological theorists have been accustomed to deal with concepts such as that of the interactive process, and that a very few psychologists have begun to move in the direction of the development of combining principles. He states that the majority of psychologists, however, have sought monadic laws, and that they have developed these “. . . with reference to a monadic unit of behavior” (Sears, 1951, p. 479).

### THEORIES OF INTERACTION

As he continues to develop his argument for a theoretical framework which deals with individual and social behavior together, Sears states that the basic events to which a viable theory of human behavior must have reference are actions. He expresses concern about the condition of obscurity — not to say obscurantism — which has befallen the concept of dynamism as a result of the variety of meanings which have come to be associated with it through its use at the hands of psychological theorists. He contends that many modern psychological systems which are acclaimed as dynamic are in reality trait-based or need-based, and that a concept which must be included in the formulation of a truly dynamic theory is that of change.

Sears postulates two kinds of changes in behavior. One of these is ongoing action, for which he proposes the designation, performance. The other is learning, or acquisition. A prerequisite to the prediction of action is knowledge concerning the individual's potentialities for action. Further,

a theory of action which is to have predictive power must provide for the systematic ordering of changes in action potential. He was unable, at the time of his review, to cite any theoretical system which effectively combined dynamic approaches to both aspects of behavior.

Sears' central argument is that, if a single fruitful theory is to be developed to embrace both individual and social behavior, the basic unit can no longer be, in every case, the action of one person. This basic unit must be capable of being expanded to describe "... the combined actions of two or more persons ..." (Sears, 1951, p. 479). He contends that many of those qualities which characterize a person are the products of interactions with others. These are measurable only by direct or symbolic reference to such interaction situations, and even individual behavior is at least partially described in terms of interaction variables. The means by which Sears proposes to link individual and social behavior is the *environmental event*. By this concept he means the changes in the environment which are brought about by the acts of the individual or individuals engaged in the action sequence. Other characteristics of the environment may influence the future behavior of the person or persons under consideration, but unless there is a state of interdependence of each on the other there is not an environmental event in Sears' sense.

The factor responsible for maintaining the dyadic unit, according to Sears, (1951, p. 480), is the expectancy of the environmental event. He notes a similarity between this and Hull's (1931) concept of the fractional anticipatory goal response:

... as in the case of the anticipatory goal response, [the expectancy of the environmental event] elicit[s] response-produced stimuli... [which]... become integrated into the total stimulus constellation which serves to instigate this behavior sequence on future occasions... [It is] these anticipatory reactions... [which] are the expectancies [which]... make the behavior of... two people truly interdependent... (Sears, 1951, p. 480).

Sears suggests that the variables and the general principles which will eventually find their way into a "... diadic [*sic*] behavior theory ... will probably be discovered in the attempt to analyze those psychological processes that apparently result from highly particularized constellations of interpersonal relations ..." (Sears, 1951, p. 480). He predicts that these will include such processes as identification, reciprocal cathexis, and secondary drive formation. He expresses the belief that further developments will be products of the study of small groups, and cites Festinger's (Festinger, Schachter, and Back, 1950) concept of cohesiveness.

In Sears' monadic-dyadic frame of reference, personality becomes a description of those characteristics of the individual by which his poten-

tialities for action are specified. He requires that the description of these characteristics be in terms of the dyadic relationship in which behavior occurs. He arrives at the conclusion that it is only within the context of the individual characteristics of those others with whom a person interacts that his own characteristics can be adequately conceptualized.

Returning to his consideration of the two aspects of change in a dynamic theory, Sears points out that when personality factors are treated as the antecedents of behavior, it is from consideration of ongoing action that the pertinent theoretical formulations will arise. However, when personality development is considered as the consequent of behavior, appropriate theoretical principles will be derived from the study of learning. He calls attention to the difficulty, in such a context, of successfully differentiating between cause and effect and suggests that one possible solution is a careful measurement and partialing out of the influence of the primary person's contribution to the dyadic relationship before attempting to relate the antecedent behavior of the other to the consequent behavior of the primary person.

Sears summarizes his concept of the most useful direction for a theory of individual and social behavior by stressing that it should have:

... the following properties: its basic reference events must be *actions*; it must combine congruently both *monadic* and *diadic* events; it must account for both *ongoing action* and *learning*; it must provide a description of personality couched in terms of *potentiality for action*; and it must provide principles of personality development in terms of *changes* in potentiality for action (Sears, 1951, p. 482).

The development of group theory is the context for much of the significant work dealing with interaction. This is the frame of reference for Stogdill's (1959) analysis of the interaction parameter. As a consequence of the direction of his emphasis, the other interdependent elements with which he deals are not the same as those proposed by McGrath (1963) and others for the analysis of interpersonal relationships. However, his view of the nature of interaction is most relevant for and pertinent to the purposes of this review.

Stogdill begins his examination of the parameter of interaction with the disarmingly simple statement that:

Social interaction requires the presence of two or more individuals who are responding to each other. Although it is based upon the behaviors of individuals, it is not a characteristic of individuals. Social interaction is an interpersonal rather than a personal characteristic of behavior. It takes place in a group situation. In fact, interaction may be regarded as the essential concept for a definition of social groups (Stogdill, 1959, p. 17).

He proceeds to define the group in terms of interaction. A group may be regarded as an open interaction system in which actions deter-

mine the structure of the system and successive interactions exert coequal effects upon the identity of the system.

He defines interaction, within the framework of this definition of the group, as the reaction of each member to the other, in a system composed of two members, such that the response of each is a reaction to the behavior of the other. An open system is defined as one in which members may leave or enter without destroying the system, as long as interaction is maintained. By structure, he means a differentiation or ordering of the system which assures that each member and his reactions are separate and distinct from each other member and his reactions. Identity may be defined as the probability that a system will be recognized as the same group through repeated observations, as a result of continuity of interaction.

As a unit of analysis, interaction is composed of actions and reactions. Stogdill points out the necessity to distinguish between reaction and interaction. The former is a one-way process. The latter is a process which involves the reciprocal reactions of two or more persons. The interaction of two persons must be capable of expression as a logical identity, regardless of the direction of regard, while the reaction of each member of the dyad may be totally different.

The members of a group are not likely to think of that group in abstract terms relating to its structure. Rather, they tend to perceive the group as made up of individuals. In larger groups, the individual's perceptions are apt to be limited to the members of the subgroup to which he belongs. As Stogdill suggests, it should not be surprising that perception becomes so personalized ". . . when it is realized that face-to-face interaction is an immediate, involving, and often demanding process . . ." (Stogdill, 1959, p. 21). The perception of the organization as an abstract process and structure is often obscured by this immediate, personalized experience.

In Stogdill's formulation, descriptions of the personal characteristics of members of a group, although they may constitute an important set of facts about the group, do not describe the behaviors and interactions which identify it as a group. The group is identified by the successive interactions which give the system temporal continuity. There is interaction only so long as there are actions and reactions. If there are not reactions of members to each other there is no interaction. Interactional stability based upon a substructure of constant change is the hallmark of a group.

Although interaction is not a characteristic of individuals, individuals differ in their capacity or inclination to interact. They also differ in

their tendency to interact in different situations. Each individual apparently has an upper limit of interaction capacity which bears no necessary relation to the opportunity to interact which may exist in a given situation (Borgatta and Bales, 1953). Another individual difference in interactive behavior includes the number of persons with whom interaction will be initiated and maintained (Healey, 1956; Jennings, 1950; Stogdill and Haase, 1957).

In the context of the study of leadership, Bass (1960) gives an operational definition of interaction. He states that two persons have interacted when the acts of each have stimulated the other. The problem in this definition lies in the demonstration and measurement of stimulation. He joins Newcomb (1950), Shibutani (1961), Krech, Crutchfield, and Ballachey (1962), and many others, in the assertion that interaction between persons is the central concern of social psychology.

Bass calls attention to the large number of situational variables which exert their effect on interaction between persons. He devotes himself primarily to the interaction potential of the members of a dyad embedded in a larger group. The sources of interaction potential which he identifies include size of group, propinquity, ease of communication, acquaintanceship, mutual esteem and attraction, similarity in attitudes and abilities, and personality characteristics. He indicates that on occasion interactive behavior may be induced by variables such as boredom, indulgence in alcohol, and the influence of third parties.

Among such sources of potentiality for interaction, Bass recognizes a tendency to increase the complexity of the pattern of possible interactions. He indicates that the factors of size, communication, proximity, and task coordination give particular evidence for this complexity introduced by the increasing number of possible interactions. As he points out, this increasing complexity lowers the probability of the occurrence of any given interaction. There is an inverse relationship between the degree of difficulty encountered in attempts to interact and the likelihood of interaction. Bass notes, in analogy to the learning situation, that just as the probability of the acquisition of a specific bit of information is a function of task difficulty and task complexity, the probability of a given dyadic interaction is a function of the number of interactions which are possible in any given set of conditions.

The potentiality for interaction is also positively related to the predictability, and inversely related to the ambiguity, of the behavior of the co-communicator. The more intimate or familiar two persons are, the more likely they are to interact. Although both intimacy and familiarity correlate with interaction potential, they are not identical. Familiarity

appears to denote the quantitative aspect of relationship, while intimacy reflects its intensity. The primacy of an interaction is also influential. An individual is most likely to interact with the first person he meets in a group, to the probable exclusion of interaction with other members of the group.

Bass is interested in the potentiality for interaction as it relates to the effectiveness of groups. He starts from the assumption that the greater the interaction potential as witnessed in the variables discussed above, the greater is the probability that the group will become effective. He concludes that group effectiveness is related to the potentialities for interaction. Further, interaction potential is related to complexity, which is a function of group size, propinquity, communicability, intimacy and familiarity, similarity, mutual esteem, attraction, and personality characteristics of individual group members. Other investigators (Homans, 1950, 1961; Newcomb, 1956; Schein, 1960) have also identified many of these variables as exerting effects upon interaction.

In introducing the interaction parameter in his theoretical formulation, McGrath (1963) reaffirms that there appear to be individual differences in the predisposition to participate in interpersonal situations — to interact or to respond to overtures toward interactive behavior. He emphasizes, again, the interdependence of the interaction, attraction, and influence parameters. He arrives at the conclusion with Sears (1951), Stodgill (1959), and Bass (1960) that the tendency to interact should be dealt with as an aspect of the dynamic relationship between persons as well as a trait of the individual.

It appears that experimental studies of dyadic interaction require the introduction of a task variable. Otherwise, the subjects tend not to become involved in the experimental situation. This has not seemed to be a necessary condition for effective study of interpersonal attraction or influence. Although this review is not primarily concerned with the task variable, several of the investigations reported in the following pages deal with the interaction of individuals in task-oriented situations.

The nature of the task assigned to the members of the group under study is frequently the independent variable. Again, it may be a specific personality characteristic which is manipulated. A third kind of variable which is often treated as the independent variable is group structure. In the course of this review it has become apparent that investigators seldom treat the interaction itself as the manipulated variable. A possible explanation of this phenomenon is that it is easier to deal with stable factors in interpersonal relationships than with aspects of change. However, in some of the Asch-type studies there is manipulation of interaction.



There are some other instances in which investigators have experimented with the modification of the interaction of co-communicators. One such study is that in which Bieri (1953) investigated the proposition that constructive interaction would produce changes in the perception of others in the direction of increased similarity to the self.

Twenty-six pairs of students in the beginning undergraduate course in psychology at Ohio State University were the subjects for Bieri's study. The majority of the members of these same-sex dyads were total strangers, while a few were casual acquaintances. Half of these pairs were assigned to an experimental group, and the other half became controls. During the first phase of the experiment each subject was seated so that he could not see the other member of the dyad without turning. While seated in this position the subject completed a multiple-choice version of the Rosenzweig Picture-Frustration Study (Rosenzweig, 1947) first in accordance with own feelings and then as he thought the other member of the pair had done.

The experimental condition was the extent of interaction between the members of the dyad. In the second phase of the study the experimental pairs were placed in a free-expression interaction situation for twenty minutes. This situation was controlled by the investigator only to the extent that he specified the topics for their discussion. In this phase, the control pairs remained seated with their backs to each other and reacted individually to the same stimuli. For the control subjects, directions were given in the singular and responses were written. The time allotted to these subjects was the same as for the experimental pairs.

In the final phase of this experiment the control pairs remained seated, and the experimental pairs were again seated, with their backs to each other. Each subject repeated the Picture-Frustration Study as he thought his partner had done.

Bieri found a significant increase in perception of similarity to self in comparing the pre- and post-test responses of the experimental group. There was no such increase for the control group. He concluded that constructive interaction will produce changes in the perception of the other person in the direction of increased similarity.

This experiment of Bieri, which involved a comparison of the conditions of interaction and no interaction, offers empirical evidence in support of the postulate of Schein (1960) that the control of interaction is crucial in determining the effectiveness and outcomes of interpersonal relationships.

## SIMILARITY

In an experiment by Triandis (1960), two hypotheses concerning the effect of interpersonal similarity on communication effectiveness were tested. The first hypothesis was that the greater the communication similarity between co-communicators, the more effective will be the communication between them. Communication similarity was operationally defined as rated similarity in language usage. The second hypothesis was that the greater the attribute similarity between two persons, the more effective will be the communication between them. Attribute similarity was defined as similarity in language used in describing judgments of events which were common in the experiences of the judges.

Forty male undergraduate students who were at class average in achievement were randomly paired. Each subject was presented with six standard pictures and given the task of describing the attributes of these stimulus pictures. On the basis of a previously established rating system derived from Osgood's Semantic Differential (Osgood et al., 1957), each pair was given a score reflecting the cognitive similarity of its members. Two raters were used in this scoring, and high inter-rater reliabilities were obtained. In the context of this study cognitive similarity refers to similarity in the ascription of attributes to the stimulus pictures.

In the second phase of the experiment the members of each dyad were seated opposite each other at a table, with an opaque partition between them. Each pair played six games. In each game each partner was given two pictures, one matching and one different. Their task was to discover which was the common picture within a time limit of twelve minutes. This was to be done by the transmission of messages consisting of adjectives.

The games were played under three conditions which were completely counterbalanced. The first was a free-list condition in which subjects were allowed to use in their messages any adjectives they chose. In the second condition the co-communicators were required to use adjectives from a common list. In the third condition, partners were required to use adjectives from lists which differed in meaning across Osgood's (Osgood et al., 1957) dimensions of intensity, activity, and evaluation. In this phase scores for communication similarity were assigned to each dyad on the basis of the messages transmitted. These scores were obtained in the same way as were the scores for attribute similarity in the first phase. In a like manner, scores for communication effectiveness were obtained. Again, high inter-rater reliabilities were achieved for both dimensions.

Both of the hypotheses were supported by the experimental findings. The greater the attribute similarity, the greater the communication effectiveness in the dyad. Also, the greater the communication similarity, the greater the communication effectiveness. A further finding was that the two kinds of similarity are unrelated. Triandis (1960) concluded that attribute similarity involves perceptual categories that are not involved in communication similarity. He also concluded that it is desirable for co-communicators to use the same dimensions when they attempt to communicate, but that this is not a limiting condition for communication, because minimum communication can take place even when co-communicators use different language (in this experiment, different adjective lists).

From the results of this research, Triandis (1960) suggests that Newcomb's (1950) hypothesis should be modified. Newcomb hypothesized that ". . . the important thing about a group's norms . . . is that they make possible communication among its members. People can *interact* without any common body of norms, but they cannot *communicate* in the sense of sharing meanings through their interaction . . ." (Newcomb, 1950, p. 267). Triandis contends that, based upon his data, a more correct statement might be: ". . . Some communication almost always takes place when two persons interact, but the effectiveness of their communication is greater when they share common norms . . ." (Triandis, 1960, p. 181).

#### ***Implications of Studies of Similarity for the Counseling Process***

The importance of these findings and conclusions for the counseling process is that attribute and communication similarity do partially determine the effectiveness of interaction. Further, the fact that some meaningful communication almost always takes place when co-communicators interact is of special importance. This fact would suggest that, in the counseling process, even minimal interaction is better than none.

#### **GROUP STRUCTURE**

Bovard (1951) studied the effect of differences in group structure on the production of interpersonal affect. Two pairs of matched classroom groups were established, each consisting of one group-centered unit and one leader-centered unit. The question which was examined was whether the group-centered process, in which verbal interaction was maximized, would produce a higher level of interpersonal affect than the leader-centered process, in which verbal interaction was minimized. The investigator devised a rating scale for the measurement of interpersonal affect. He found a greater degree of verbal interaction in the group-

centered units than in the matched leader-centered units. There was also a significantly higher rating of interpersonal affect in the former than in the latter units, whether this was considered in terms of averages for individuals or in terms of the group as a whole. The factor most clearly related to this finding was the high level of verbal interaction in the group-centered units.

In a subsequent study, Bovard (1956) obtained additional support for the proposition that verbal interaction stimulates positive feelings among members of small groups, both for individuals and for the group as a whole. He found that the liking of one member for another is determined by the amount of interaction between them, and that group attraction increases with an increase in the liking of one member for another.

Motivational factors in dyadic interaction were investigated by Zimmer (1956). Subjects were airmen who indicated their positive and negative choices for work relationships from among the members of the five- to ten-man groups to which they were assigned. Pooled rankings by fellow group members yielded measures of subjects' behavior tendencies. Three hypotheses were tested for both harmonious and uncongenial groups: (a) no relationship exists between behavior tendencies of subject and object; (b) no relationship exists between subject's perception of self and his perception of object; (c) no relationship exists between the deviation of subject's perception of self from the group consensus and the behavior tendencies of object. None of the hypotheses were rejected for either kind of group. However, Zimmer found a trend toward greater disparity in behavior tendencies between members of uncongenial dyads than between members of harmonious dyads.

A study of the effect of differential group structure on interaction was conducted by Altman and McGinnies (1960). They established six-member discussion groups, five each of five different compositions. The composition of the groups was varied on the dimension of homogeneity or heterogeneity of ethnocentrism. Group assignments were made on the basis of performance on the California Ethnocentrism Scale (Adorno et al., 1950).

Each six-man group viewed and discussed a film dealing with general problems of ethnic minorities and then completed a questionnaire which measured aspects of interpersonal perception. Altman and McGinnies found no clear-cut or simple effects of group structure. However, they concluded that there is a linkage between interpersonal perception and discussion behavior. Those group members who perceived others' attitudes most accurately participated more actively in discussion than did those whose perceptions of others' attitudes were inaccurate. The

pace of discussion and the production of opposition-directed communication both tended to be positively related to accuracy of evaluation of the group. These authors' failure to find an effect of group structure may be attributable to the possibility that even the most heterogeneous of their groups was not truly heterogeneous.

The development of intra-group cooperation under conditions of inter-group competition was the subject of a study by Vinacke (1964). Ten pairs of triads of each sex engaged in competition for monetary rewards. The variable which was manipulated in the contests was the allocation of power to the members of the triad. In each contest the group cast a vote as to its course of action and a vote as to the distribution of winnings. There were three conditions of power allocation. In this experiment the triads reached consensus without regard to power differences in a high proportion of trials. Vinacke concluded that the significant factors which differentiated winning from losing groups were efficiency in decision-making and skill in performing the experimental task. It would appear that differences between the outcomes of this and previous studies of a similar nature may be attributed to recognition by Vinacke's subjects of the mutual advantage to be gained through cooperation, or, in Caplow's (1956) term, coalition.

### ***Implications of Studies of Group Structure for the Counseling Process***

The implication of Bovard's findings is that an authority-dominated relationship will minimize interaction and, as a consequence, limit the potential level of mutual attraction. If the relationship is dyad-centered, that is, if shared goals are the focus of interaction, the possibility of mutual attraction will be enhanced. In turn, the probability of the accomplishment of shared goals will be increased.

In the rehabilitation process there is a greater problem for the counselor because, in general, neither he nor the client can choose the person with whom he wishes to work. The counselor should be cautioned against using perceived disparity as a basis for rejecting applicants for services. This might prove to be a false basis for selection because it could lead to the rejection of applicants who have the greatest need and/or the greatest potential for rehabilitation. A generalization from this may be that neither has to like the other; their shared task is the rehabilitation of the client. Mutual attraction may enhance the probability that they will accomplish this task, but it cannot be a necessary condition. It has been emphasized before that it is not the counselor's duty to like everyone, but to seek out the similarities which can serve as a basis for genuine attraction.

## PERSONALITY CHARACTERISTICS

An experiment was performed by Gordon (1957) to test the hypothesis that repressors and sensitizers differ in their ability to predict others' responses to a personality test after a limited interaction in a task-oriented cooperative situation. The constructs repressor and sensitizer were operationally defined in terms of reaction to threat and of personality test results.

From an original group of sixty female subjects, eight were found to meet the requirements for inclusion in the group of repressors and eight to meet the requirements for sensitizers. Two repressor pairs, two sensitizer pairs, and four pairs each composed of a repressor and a sensitizer were established. These dyads engaged in a cooperative endeavor. Following this interaction, the members of the dyad were separated and asked to perform the personality inventory as they thought their partners would. When they had completed the inventory, subjects were asked questions concerning the extent of their liking for their partners. They were also asked to list as many of their partner's traits as they could recall, and all of their own traits.

The results of this study indicated that repressors were more accurate in predicting similarities between themselves and others, while sensitizers were more accurate in predicting differences. The latter group were also more accurate in predictions of both similarities and differences between themselves and people who were, by other criteria, different from them. Repressors tended to ascribe similarities, in a process which may be analogous to projection, even when such similarities did not exist. Sensitizers tended to err in the direction of ascribing differences, even when such differences did not exist. Both groups were better able to predict the responses of repressors than those of sensitizers. The extent of reported liking did not differentiate between the two groups, either as reporters or as the objects of reports.

In a subsequent study, Gordon (1959) treated interpersonal predictions as largely determined by response sets. His subjects were fifty-four male college sophomores who fell into three groups. There were eighteen repressors, eighteen sensitizers, and eighteen neutrals in the sample. Selection was on the basis of performance on a battery of personality measures.

The major task of each subject was to predict the responses of another subject to the items of the experimental test battery, following a forty-five minute period of interaction in a cooperative task performance situation. Before the interaction, subjects were asked to predict how "the average college sophomore" would respond to the experimental measure of personality. After the interaction, subjects were asked to predict how their partners would respond to the same instrument.

Gordon found that sensitizers are less apt to assume similarity between self and partner than are either repressors or neutrals, who were not different from each other in this regard. Differences in assumed similarity were not related to differences in the characteristics of predicted persons. Differences among these three groups in the tendency to assume similarity were enhanced by the presence of the predicted person. Change in assumed similarity responses was not associated with the set to predict. Gordon concluded that differences in the assumed similarity response set are a function of differences in personality characteristics, and that this set or response potential is more clearly activated when the predicted person is physically present. However, differences in the predicted person, or in motivational conditions, do not act to modify the assumed similarity response set.

Altrocchi, Parsons, and Dickoff (1960) conducted a study of changes in the discrepancy between self-concept and the concept of the ideal self in sensitizers and repressors as a result of a training experience which emphasized psychotherapeutic interpersonal interaction. Altrocchi and his associates used a different criterion measure than did Gordon (1959). They used performance on the MMPI as a means of differentiation between sensitizers and repressors.

The experimental group in this investigation consisted of eighty-eight senior nursing students at the Duke University School of Nursing in the academic year 1956-1957. A cross-validation group was comprised of sixty-four senior nursing students in the following year. In each year, the fifteen subjects with the highest positive scores were called repressors and the fifteen subjects with the highest negative scores were called sensitizers. A middle group of fifteen subjects was included for comparison purposes. Leary's Interpersonal Check List (Leary, 1957) was used as a measure of self-ideal discrepancy.

Three hypotheses were tested: (a) repressors manifest smaller self-ideal discrepancies than sensitizers; (b) as a result of training focusing on psychotherapeutic interpersonal interaction, the self-ideal discrepancies of repressors increase and the discrepancies of sensitizers decrease; (c) as a result of training focusing on psychotherapeutic interpersonal interaction, subjects' self-ideal discrepancies decrease.

The first hypothesis was supported in both the experimental group and the cross-validation group. Repressors had much smaller self-ideal discrepancies than sensitizers not only before, but also after training. In each comparison, the middle group fell between the repressors and the sensitizers. The second hypothesis, concerning differential change as a result of training, was not supported in either group. Altrocchi and his

associates (Altrocchi et al., 1960) were not able to find any consistent pattern in the changes of either repressors or sensitizers. Partial support was obtained for the third hypothesis. There was a significant decrease in self-ideal discrepancy in the experimental group, but there was only a trend in this direction in the cross-validation group.

The results of this study suggest that an intensive experience focused around interpersonal interaction does not necessarily produce modifications in the personality characteristics of the individuals who undergo such an experience.

In a later study, Altrocchi (1961) selected 56 repressors and 56 sensitizers from a population of 227 senior student nurses. Repressors were defined as those who tended to use avoidance, denial, and repression of potential threat and conflict as a primary mode of adaptation. Sensitizers were defined as those who tended to be in a state of constant vigilance concerning potential threat and conflict and to use intellectual and obsessive defenses.

Each subject described herself and three randomly chosen members of her training group on Leary's Interpersonal Checklist (Leary, 1957) before and after a three- to four-month period of training in psychiatric nursing. A feature of this training period was individual counseling which was intended to help the student become aware of the dynamics of her own behavior in nurse-patient relationships in the psychiatric setting.

Assumed dissimilarity scores (Cronbach, 1958) of independent groups of repressors and sensitizers describing other repressors and sensitizers were calculated. The results, following the two studies of Gordon (1957, 1959) seemed to demonstrate that sensitizers assume more dissimilarity between self and other than do repressors. Following suggestions by Cronbach (1958), however, assumed dissimilarity scores were analyzed into components. This analysis revealed that the obtained differences in assumed dissimilarity scores between repressors and sensitizers were due primarily to stable differences in self-description rather than to any clear differences in perception of others or to any substantial correlation between perception of others and perception of self (the dyadic component).

Altrocchi concluded that his results demonstrate the usefulness of Cronbach's (1958) suggestions, and the necessity of analyzing gross assumed dissimilarity scores into their components in order to interpret them meaningfully. He also came to the conclusion that relationships between experimental variables are obscured by the use of such gross concepts as that of assumed dissimilarity.



A study by Sinelser (1961) compared problem-solving achievement and interpersonal perception in dyads composed of dominant and submissive males. The general proposition under consideration was that dyads made up of different combinations of dominant and/or submissive individuals differ in achievement as a function of the kind of combination and of the presence or absence of assigned roles. It was further proposed that the relative success of specified pairings could be predicted on the basis of personality theory. Hypotheses were derived from Sullivan's (1953) general assumption that modes of relating are chosen by individuals on the basis of their utility for maintaining anxiety at a minimum level. The further assumption was made that achievement should be greater in dyads in which members are permitted to relate to each other in their habitual manner than in dyads in which anxiety-inducing roles are imposed on members.

Seven different combinations of subject characteristics and role assignments were established. These involved the pairing of dominant and submissive subjects in three different arrangements of assigned roles: (a) dominant subject assigned dominant role, submissive subject assigned submissive role; (b) dominant subject assigned submissive role, submissive subject assigned dominant role; and (c) no role assignment. There were two combinations of dominant subjects and two of submissive subjects. These were under the conditions of either role assignment (dominant-submissive) or no role assignment. The sample used in the study was composed of 140 subjects, ten pairs in each combination, drawn from a pool of 748 military and air science students who volunteered to participate. Selection was based on scores obtained on the California Psychological Inventory (Gough, 1957). Subjects whose scores were approximately one standard deviation above or below the mean for the total sample of volunteers were defined as dominant or submissive, respectively.

Smelser hypothesized a rank-ordering of these seven group-types, in achievement in a cooperative problem-solving situation, based on the assumption, mentioned above, concerning modes of relating and their effect on task achievement. He predicted that a dominant-submissive pair with compatible role assignments would achieve best, followed by a like pair with no role assignments. Next would be a dominant-dominant pair with assigned dominant and submissive roles; a submissive-submissive pair with assigned dominant and submissive roles; a dominant-dominant pair without role assignments; a submissive-submissive pair without role assignments; and, finally, a pair in which the dominant subject was given a submissive role assignment while the submissive subject was given a dominant role assignment.

Pairs of subjects had the task of coordinating the movement of two individually controlled model trains in opposite directions in a closed track system. Their goal was the achievement of as many mutually complete circuits of the track as possible in each of six three-minute trials. Following the completion of this task, each subject completed the Interpersonal Check List (Leary, 1957) as he saw himself and as he saw his partner.

An empirical rank ordering of the seven group-types agreed with that hypothesized by Smelser with the exception of the dominant-submissive dyad without role assignment. This pair, predicted to be second highest in achievement, actually ranked third lowest. Smelser attributed this difference between predicted and achieved results in part, to the higher aspiration level of dominant subjects. Two groups of paired dominant subjects achieved higher scores than had been predicted. By the last trial all groups were performing at virtually the same level, so that differences in sum scores were a function of the number of trials which groups required to reach a high level of achievement. The factors related to early attainment of high achievement were the relative dominance of partners and the assignment of roles.

Smelser's study is very revealing of the complexity of the interaction between variables such as personality characteristics, perception of others, task difficulty, and the motivation potential of the task situation, in their effect upon interpersonal behavior in the dyad. As he concludes, congruence between habitual patterns of interactive behavior and assigned role behavior, and complementarity of habitual patterns of behavior within dyads are influential in determining effectiveness in cooperative endeavor.

In a study of the relationship between teacher needs and classroom behavior, Wallen, Travers, Reid, and Wodtke (1963) delineated the classroom behaviors of elementary school teachers and assessed their predictability by two techniques. Two samples of teachers were drawn, one from an urban school district and the other from schools representing a suburban and semi-rural district. The achievement, affiliation, control and recognition behaviors of the two samples of teachers were assessed by paper and pencil measures of need and by direct observation of teacher-pupil interaction by trained judges during a classroom activity period.

Among the findings, one of particular interest for this review was a significant positive correlation between Control need, as measured by the Teacher Preference Schedule developed by Stern and Masling (1958), and controlling behavior of teachers, as rated by trained judges

focusing on the dyadic interaction of teachers and pupils. From these data, the interpretation may be made that personality characteristics do exert an influence on the type of interaction in which the person chooses to engage.

Stimpson and Bass (1964) undertook an investigation of the effect of differences in interpersonal orientation upon behavior in dyads. On the basis of the results of prior studies (Bass, 1962a; Bass and Duntzman, 1963; Bass, Frye, Duntzman, Vadulich, and Wambach, 1963; Kanfer, Bass and Guyett, 1963) Bass established three categories of reaction to interpersonal situations. These are: (a) self-orientation, in which the person manifests primary concern with himself, often to the exclusion of concern with the needs of his co-workers or with the job to be done; (b) interaction orientation, in which the main interest of the individual is the maintenance of superficially harmonious relationships and group activity without regard to task accomplishment; (c) task orientation, in which emphasis is placed upon problem-solving, working persistently, and completing the job.

In the study under consideration, Stimpson and Bass selected groups of students, on the basis of performance on the Orientation Inventory (Bass, 1962b), representing these three categories. The criterion for selection was placement in the top quartile on the critical scale and below the median on the other two scales of the inventory. The study sample included fifteen self-oriented, fifteen task-oriented, and fifteen interaction-oriented subjects. All possible combinations of the three orientations were paired in a Graeco-Latin square, to eliminate period and order effects. Each subject took three regular class examinations. In each step of the experiment, the subject responded to the test questions alone, met with a partner to discuss the questions, and then took the examination again.

The results of this study which are of particular concern in the present review concern the differential effects of the three orientations upon dyadic interaction. Stimpson and Bass found that, regardless of the orientation of the other partner, dyads containing a task-oriented subject coalesced most, while dyads containing an interaction-oriented subject coalesced least. Interaction-oriented subjects also allowed less successful leadership to take place, caused their partners to feel less responsibility for group decisions, elicited less participation from their partners, and caused their partners to experience more conflict in the dyadic situation, than did subjects with either task- or self-orientations.

Stimpson and Bass point out that, under the conditions of their experiment, their findings fit well with the expectations growing out of

their definitions of the self-, task-, and interaction-orientations. They emphasize the significance of the task in determining the effect of orientation. They cite Campbell's (1961) study in which dyads engaged in ambiguous tasks, the outcome of which had no bearing on their academic standing. In this experiment, Campbell found that it was the interaction-oriented members of dyads who were most favored as partners and who were least likely to produce conflicts in the task situation.

### *Implications of Studies of Personality Characteristics for the Counseling Process*

The significance which is to be gleaned from this group of studies concerned with personality characteristics is that, while individual traits do contribute to the nature and quality of the dyadic interaction, it is primarily in combination with other variables that these produce their effects. For example, Gordon's (1957, 1959) data suggest that the person's predictions of the other will be more objective if they are made in the other's absence than if they are made in his presence, regardless of the personality characteristics of either. From the work of Altrocchi and his associates, the implication can be drawn that an intensive interpersonal experience, even though it is psychotherapeutically oriented, will not necessarily produce personality changes. Most theorists would suggest that an essential ingredient for the production of such changes is a felt need and desire on the part of the client to change.

If the interaction situation permits the co-communicators to carry on in their habitual role patterns, and if these are mutually compatible, the dyad will attain its shared goals with smaller amounts of interaction than if the roles required of them are individually and mutually incompatible.

Stimpson and Bass studied the differential effect of self-, task-, and interaction-orientations on coalescence in dyads. Their results lead to conclusions of possible significance for the counselor who is to establish an effective working relationship with his clients. First, the counselor should be aware of the type of orientation which each client brings to the situation. In order to perceive this orientation he should carefully listen to and observe the verbal and nonverbal communication of the client. Second, the counselor should have the flexibility to structure his relationship with the client in terms of the client's orientation.

### ATTRACTION

In a study cited earlier, Newcomb (1956) dealt with the relationship between similarity of attitudes and attraction. He found that similarity of attitudes, and consequently attraction, increased with interaction.

Williams' (1962) study supports Newcomb's proposition that the relationship between attraction and perceived similarity of attitudes is a function of interaction. Murstein (1961) found that the attractiveness or lack of attractiveness of a test interpreter was directly related to the quality of interaction in a single interpersonal event. Backman and Secord (1962) demonstrated that an induced false perception of attraction was dispelled through increased interaction. Thus interaction appears to be a more potent determinant of attraction than does an induced perceptual set.

The interdependence of the parameters of attraction and interaction, proposed by McGrath (1963), is demonstrated again by the findings cited above. He has postulated a like relationship between interaction and influence.

### INFLUENCE

In a study in which they manipulated the interactive behavior of medical examiners, Jaffe and Slote (1958) demonstrated that denial of illness is an interpersonal phenomenon. The mediating effect of interaction upon the relationship between role structure and influence was demonstrated by Steiner and Field (1960). They found that with increased ambiguity in the status of group members, there was a concomitant increase in susceptibility to influence, although there was a reduction in direct communication. Further substantiation is thus provided for Schein's (1960) proposition concerning the importance of interaction on influence. DiVesta and his associates (DiVesta et al., 1964) showed that the kind of interactive behavior emitted by a communicator was significantly related to the degree of confidence he elicited in experimental subjects. Type of interaction was also manipulated by Garai (1964). He found that an ambiguous appeal was more effective in producing conformity than was a direct appeal. In an interesting parallel, Harper and Tuddenham (1964) found that interaction among close mutual friends was not more effective in producing conformity than was interaction in a group of non-preferred others. It would appear that the security of a structured situation allows freedom for individual expression, while the more ambiguous situation causes a reduction in interaction and consequent caution in the expression of deviant opinions. Rim (1964) demonstrated that group interaction had differential effects on the behavior of subjects characterized on two dimensions: radical-conservative and tenderminded-toughminded. Implicit in his findings is the suggestion that subjects who are high in radicalism and tendermindedness are both more readily influenced and more influential in final group decisions than are subjects who are either toughminded or conservative. It may be that

commitment to group decisions is more a function of amount of interaction than of the personality characteristics of the co-communicators. This commitment might be expected to grow out of a deeper involvement resulting from increased interaction. Similarly, Turk and Wills (1964) learned that the less the authority in student physician-student nurse dyads, and the higher the professional commitment of members of dyads, the greater were the structural demands for interaction, and consequently, the higher was the interaction rate.

### ***Implications of Studies of Influence for the Counseling Process***

It should be possible to make some predictions from the results of the studies reported above to the client-counselor relationship, if it can be shown that the two sets of relationships are similar in significant aspects. For example, the client will interact less with the counselor who relies upon the authority of his position than he will with the counselor who helps him to perceive that theirs is a sharing relationship. Since commitment to shared decisions is a function of the amount of interaction, it follows that client satisfaction with the counseling process and its outcomes, and objective success as well, are related to the frequency and quality of contacts.

### **SUMMARY**

In this chapter empirical evidence has been reviewed for the existence and effect of specific variables which may be subsumed within the parameter of interaction. It is now fifteen years since Sears (1951) contended that insufficient attention is given in contemporary research to the dynamisms of human behavior. A simple comparison of the frequency of occurrence of different independent variables in the studies cited here yields substantial support for the opinion that Sears's concern is equally valid today. Although the research reported in this bulletin is only a sampling of the body of work in interaction, the distribution of types of variables manipulated is believed to be representative. In the majority of instances, the experimental condition under investigation has been the effect of personality traits upon interactive behavior. Another common practice has been the study of the effect of group structure upon interaction. The incidence of studies which treat interaction itself as the antecedent, and variables such as traits or group structure as consequents, is relatively low.

Stogdill (1959), Bass (1960), and McGrath (1963) echo Sears's argument that, in a truly dynamic theory of human behavior, characteristics of the individual and of the group must be defined in terms of potentiality for interaction. A concept which all agree is essential for the

productive study of interaction is that of change. Sears (1951) identifies two kinds of change, that which occurs through performance and that which takes place in learning. He proposes the environmental event as the conceptual link between individual and social behavior. The dyadic unit is maintained by the expectancy of the environmental event, which Sears recognizes as similar to Hull's (1931) fractional anticipatory goal response. He predicts that the general principles of a theory of dyadic behavior will be discovered through the analysis of those kinds of psychological processes which are manifested in interpersonal situations.

Stogdill (1959), working in the context of group effectiveness, defines the group in terms of interaction over time. Newcomb (1956) has also stressed the temporal variable. Stogdill emphasizes the importance of distinguishing conceptually between reaction and interaction. He postulates significant individual differences in the capacity or inclination to interact, and defines interaction itself as a group phenomenon.

It is proposed by Bass (1960), that the various sources of potential for interaction share an inherent tendency to increase the complexity of the patterns of interaction. He cites size, communication, and proximity as examples of factors which give particular evidence for this tendency. Other variables which are sources of interaction potential include acquaintanceship, mutual esteem and attraction, similarity in attitudes and abilities, and personality characteristics, as well as the predictability or ambiguity of the co-communicator's behavior, and the primacy of an interaction.

The theoretical propositions of Sears, Stogdill, Bass, and McGrath are generally supported by the results of the empirical investigations reviewed. Bieri (1953) found an increase in perceived similarity to be a function of constructive interaction. Interchanging the dependent and independent variables, Triandis (1960) found effective interaction to be a function of similarity in experimental behavior.

Group structure was shown to have an effect on interactive behavior in several studies. Bovard (1951) compared group-centered and leader-centered discussion units for production of interpersonal affect. The former units, in which verbal interaction was maximized, had a significantly higher rating on a scale of interpersonal affect than did the latter units, in which verbal interaction was minimized. In a later study, Bovard (1956) found that individual and group attraction increased as a function of dyadic interaction. Zimmer (1956) found that dyads characterized by uncongenial relationships were more likely to exhibit disparate behavior tendencies than were dyads characterized by harmonious interaction. Altman and McGinnies (1960) demonstrated a relationship be-

tween level and quality of verbal interaction and accuracy of perception of co-communicators' attitudes. In a study in which he manipulated the allocation of power, Vinacke's (1964) subjects reached consensus without regard to the locus of power in a high proportion of trials. The results of Smelser's (1961) experiment may add insight here. He found that congruence between habitual patterns of interactive behavior in the individual, and the complementarity of habitual patterns of behavior in the dyad, were influential in determining effectiveness in a cooperative venture. The complex nature of the interrelationships among the effects of variables in the interaction situation is further illuminated by this comparison.

The effects of personality characteristics on interaction appear to have been the subject of more research than those of any other category of variables in the interaction parameter. There has been a continuing interest in the differential response behavior of repressors and sensitizers in interpersonal situations. Gordon (1957, 1959) performed two studies in which he found that subjects characterized as repressors were better able to predict similarities between themselves and co-communicators, while sensitizers were more accurate in predicting differences. Repressors tended to ascribe similarities, even when they did not exist, while sensitizers were more apt to ascribe differences which did not exist. Sensitizers were less apt to assume similarity than either repressors or controls. Altrocchi and his associates (Altrocchi et al., 1960; Altrocchi, 1961) found that repressors had smaller self-ideal discrepancies than either sensitizers or controls, both before and after training focused on psychotherapeutic interpersonal interaction. They concluded that obtained differences between repressors and sensitizers in assumed dissimilarity were attributable primarily to differences in self-description rather than to differences in perception of others. Wallen's (Wallen et al., 1963) data may be interpreted as an indication that whether a teacher's interaction with her students is controlling or permissive is a function, in part, of personality characteristics. In the study by Stimpson and Bass (1964) interaction-oriented subjects made less acceptable contributions to achievement of dyads than did either task- or self-oriented members. Stimpson and Bass refer to a study by Campbell (1961) in which the character and motivational significance of the task were different. In the latter study, the contribution of the interaction-oriented partners was most highly valued. These conflicting results point to the necessity to specify the exact condition for each of the many variables which is operating in a given situation at a given moment.



The two final sections of the review of the interaction parameter partake somewhat of the nature of a reprise. The first of these is a limited overview of the attraction parameter from a different point of reference. The second permits a reappraisal of the influence parameter from a new point of view. The conclusion is inescapable, as McGrath (1963) has indicated, that one cannot pursue the study of variables in any one of the parameters of attraction, influence, or interaction without consideration of the concomitant effects of variables in the others.

It was pointed out in the preceding chapter that ambiguity exercises an effect which cuts across many of the dimensions of the influence parameter. Although fewer citations from empirical studies are available, it appears that ambiguity also has an effect on some of the variables which operate in the interaction parameter. There is a difference, however, in the direction of the influence of ambiguity between the two parameters. While ambiguity acts to heighten susceptibility to influence, it appears to reduce the potentiality for interaction. No comparable search of the literature with reference to the relationship between ambiguity and attraction has been made, but it may be postulated that this relationship will be, at least in part, a function of the personality characteristics of the co-communicators.

#### ***Implications of Studies of Interaction for the Counseling Process***

The opportunity for influence depends upon successful interaction. Influence also depends to a degree upon ambiguity. But if the person uses himself or the situation inappropriately as an ambiguous stimulus, he may not create the opportunity for interaction. He may even destroy the relationship and thus have no opportunity to exert influence. If the other's tolerance for ambiguity is low, induced ambiguity of any degree may cause him to seek its reduction by withdrawing from the situation. The person who seeks to use himself or the interaction situation as an ambiguous stimulus must be completely aware of his reasons for doing so, the means for creating ambiguity, its utility, and the appropriate occasions for its use (Bordin, 1955). He must also be aware that ambiguity is a powerful and dangerous tool which must be used with caution.

The client-counselor interaction is usually initiated on the basis of counselor or agency status. However, in other settings, this source of interaction potential has been found to be effective only in initial contacts. If an ongoing relationship is to be established, it would appear that the counselor must be perceptive and flexible enough to make himself, the situation, and the goals of rehabilitation attractive to the client. This should enable him to exert constructive influence in the client's life.

## V

### POSTSCRIPT

This monograph is a review of selected literature, in the area of interpersonal relationships, which is perceived as having some relevance to the client-counselor interaction. The studies reviewed here have been treated within the frame of reference of McGrath's (1963) descriptive model for interpersonal relationships. It was argued that, to counseling and to the rehabilitation counselor, the primary importance of the study of interpersonal relationships grows out of its *dynamic* character. However, the majority of research in rehabilitation which is focused upon interpersonal relationships is concerned with their static or structural aspects. The text of the next monograph will focus on this body of research.

The various theories considered have been found to have much in common. The comparative analysis of theoretical approaches has yielded two lines of evidence concerning convergences in the conceptualization of interpersonal relationships. First, there is the tendency to concentrate on dyadic or triadic relationships. The extent of agreement on the significant parameters of interpersonal relationships is a second line of evidence for the convergence of theories in this area, and a much more meaningful one.

McGrath's (1963) schema was chosen as the frame of reference for this review because of its apparent capability to successfully organize and account for the data. The body of the monograph deals with his parameters of attraction, influence, and interaction; and with the variables which affect them. Each section concludes with a statement of the possible implications which the empirical evidence reviewed has for research on interpersonal relationships in the counseling process.

### CONCLUSIONS

Throughout the theoretical and empirical studies which have been reviewed in this monograph, there is evidence which can lead to only one

overriding conclusion. Interpersonal relationships are not merely a function of the simple effects of individual variables. They are a function of the complexly interdependent actions of multiple psychological and social forces. This conclusion illuminates the almost incomprehensible difficulties which must be dealt with in the effective study of interpersonal relationships.

The predictive capabilities of studies of interpersonal relationships have been greatest when their design has incorporated assumptions of the complex interdependence of variables. It seems likely, therefore, that the most fruitful research in interpersonal relationships in the future will be undertaken in the context of probability theory. Careful specification of each variable, and of its probable interaction with each other variable in the specific environmental event, will be required to assure the most desirable outcomes of such research.

### IMPLICATIONS FOR RESEARCH ON INTERPERSONAL RELATIONSHIPS IN THE REHABILITATION COUNSELING PROCESS

The theoretical proposals and the experimental data reported in this monograph suggest directions for research dealing with two phases of the client-counselor relationship. These may be termed the initial phase and the maintenance phase. This review has not been concerned with the final phase of this relationship. Schutz (1958) has dealt with the terminal period in the life of groups in his principle of group resolution. Various counseling theorists have also dealt with the closing phases of the client-counselor relationship.

#### *Initial Phase*

*Attraction.* There are a number of empirical findings concerning the attraction parameter of the interpersonal relationship in its initial phase which merit further investigation as they relate to the rehabilitation counseling situation. The data suggest that the client's perception of the counselor's attitudes as similar to his own is especially important as a basis for attraction. It is probable that similarity of attitudes having to do with topics which the client perceives as important and relevant for him is an even more potent determiner of attraction. There is a further suggestion that the likelihood of attraction during the early stages of the relationship is enhanced if the counselor is perceived as possessing appropriate and relevant status and power. Other factors which appear to contribute to the probability of early attraction are the client's own propensity to interact, the counselor's availability for interaction, and the client's perception that his attraction to the counselor is reciprocated.

*Influence.* The results of the studies suggest that the counselor may have little direct control over the factors which enable him to achieve influence in the initial phases of his relationships with clients. Perceived similarity of attitudes is an important determiner of influence, as it is of attraction. However, certain object-person characteristics and needs play the largest role in making influence possible. If the individual has a need to enhance his self-esteem, if he has a need to reduce ambiguity, and if he has a moderate degree of relevant anxiety he will be susceptible to influence attempts. To the extent that the above findings can be extrapolated to the rehabilitation relationship, client ascription of appropriate status to the counselor will also be helpful. Under the same conditions, counselor flexibility and openness to client communication should contribute to the likelihood of achieving influence.

*Interaction.* Factors similar to those which make one person attractive to another, and which establish his opportunity to influence the other's life, operate to enhance the probability that this pair will interact. Perceived similarity of attitudes plays a very important part in determining whether or not newly acquainted persons will establish an interactive relationship. A decisive factor may be the relative capacity and inclination of the members of the dyad to interact. The initiation of interaction can hinge on the conditions under which two persons meet. The suggestion for the counseling relationship is that the counselor should make certain that the circumstances in which he first meets his clients are such that they contribute to ease of communication.

### **Maintenance Phase**

*Attraction.* The maintenance of the dyadic relationship depends upon mutual satisfaction, which results from mutual attraction. Personality characteristics of both co-communicators enter into the determination of mutual attraction. One of these characteristics is acceptance of self and of others. Another is the extent of need for acceptance by and close association with others. The implication which might be drawn from these findings is that the counselor will find that prejudiced attitudes toward persons and groups whom he perceives as different from himself will create barriers to attraction. In like fashion specific counselor behaviors contribute to client attraction. For example, the counselor should provide opportunities for frequent interaction. A friendly, insightful approach should increase the probability that the counselor will accurately perceive the client's feelings. The counselor should be honest in the expression of his own feelings; and he should possess positive, accepting attitudes toward his clients.

*Influence.* There is a somewhat better chance of maintaining influence, once established, than of initiating an influential relationship. The success of continuing attempts to influence others depends upon competence in three major areas. The person who wishes to wield influence must be adequately prepared to perform the duties of his position. He must also develop the flexibility to vary his approach with varying characteristics of others and with varying situational circumstances. Finally, he should learn to manipulate ambiguity appropriately in his relationships with others. Influence attempts which are based upon coercion or direct persuasion are almost certain to end in failure. The ethical issue involved in the use of influence should be a paramount consideration of any person who aspires to wield influence.

*Interaction.* The factors which are important for the maintenance of dyadic interaction are the same ones which make it possible to initiate interaction. Insofar as the conditions under which the results reported above were obtained apply to the rehabilitation counseling relationship, there appear to be two sets of variables over which the counselor is able to exercise some control. The first of these is the client's perception of similarities concerning important and relevant issues. The counselor should seek out areas of agreement with the client and develop these as bases for interaction. The second variable in interaction which the counselor has the capability of manipulating is the degree of predictability or ambiguity of the interpersonal situation. It is well to reiterate that use of self or situational factors as sources of ambiguity requires complete awareness on the part of the counselor of his motivation for doing so, of the goals he has in mind, and of the differential effect of client anxiety on the outcomes of the use of ambiguous stimuli.

A general conclusion to be drawn from the studies reviewed here is that: Whether in the initial or the maintenance phase of the client-counselor relationship; whether the concern is with attraction, influence, or interaction; the counselor must be constantly aware of himself. He must be aware of himself not only as a perceiver, but as an object of perception. He must be aware of himself not only as the object of the perception of others, but also as the object of his own perception.

## REFERENCES

- Adorno, T. W., Frenkel-Brunswik, Else, Levinson, D. J., & Sanford, R. N. *The authoritarian personality*. New York: Harper & Row, 1950.
- Allport, G. W., Vernon, P. E., & Lindzey, G. *Study of values: manual of directions*. (rev. ed.) Boston: Houghton Mifflin, 1951.
- Altman, I., & McGinnies, E. Interpersonal perception and communication in discussion groups of varied attitudinal composition. *J. abnorm. soc. Psychol.*, 1960, 60, 390-395.
- Altrocchi, J. Interpersonal perceptions of repressors and sensitizers and component analysis of assumed dissimilarity scores. *J. abnorm. soc. Psychol.*, 1961, 62, 528-534.
- Altrocchi, J., Parsons, O. A., & Dickoff, Hilda. Changes in self-ideal discrepancy in repressors and sensitizers. *J. abnorm. soc. Psychol.*, 1960, 61, 67-72.
- Arbuckle, D. S. Client perception of counselor personality. *J. counsel. Psychol.*, 1956, 3, 93-96.
- Asch, S. E. Effects of group pressure upon the modification and distortion of judgments. In H. Guetzkow (Ed.), *Groups, leadership and men: research in human relations*. Pittsburgh: Carnegie Press, 1951, Pp. 171-190.
- Back, K. W. Power, influence and patterns of communication. In L. Petrullo & B. M. Bass (Eds.), *Leadership and interpersonal behavior*. New York: Holt, Rinehart & Winston, 1961, Pp. 137-164.
- Backman, C. W., & Secord, P. F. The effect of perceived liking on interpersonal attraction. *Hum. Relat.*, 1959, 12, 379-384.
- Backman, C. W., & Secord, P. F. Liking, selective interaction, and misperception in congruent interpersonal relations. *Sociometry*, 1962, 25, 321-335.
- Barker, R. G. The social psychology of physical disability. *J. soc. Issues*, 1948, 4, 28-38.
- Bass, B. M. *Leadership psychology and organizational behavior*. New York: Harper & Row, 1960.
- Bass, B. M. *Behavior in groups*. Annual Report 1962, Univer. of Pittsburgh, Contract N7 ONR 35609, 1962a.
- Bass, B. M. *The orientation inventory*. Palo Alto, Calif.: Consulting Psychology Press, 1962b.
- Bass, B. M., & Dunteman, G. Behavior in groups as a function of self-, interaction-, and task-orientation. *J. abnorm. soc. Psychol.*, 1963, 66, 419-428.
- Bass, B. M., Dunteman, G., Frye, R., Vidulich, R., & Wambach, Helen. Self, interaction, and task orientation inventory scores associated with overt behavior and personal factors. *Educ. psychol. Measmt.*, 1963, 23, 101-116.
- Becker, G. The complementary-needs hypothesis, authoritarianism, dominance, and other Edwards personal preference schedule scores. *J. Pers.*, 1964, 32, 45-56.

- Bieri, J. Changes in interpersonal perceptions following social interaction. *J. abnorm. soc. Psychol.*, 1953, 48, 61-66.
- Bion, W. R. Experience in groups. *Hum. Relat.*, 1948, 1, 314-320.
- Bordin, E. S. Ambiguity as a therapeutic variable. *J. consult. Psychol.*, 1955, 19, 9-15.
- Borgatta, E. F., & Bales, R. F. Interaction of individuals in reconstituted groups. *Sociometry*, 1953, 16, 302-320.
- Bovard, E. W., Jr. The experimental production of interpersonal affect. *J. abnorm. soc. Psychol.*, 1951, 46, 521-528.
- Bovard, E. W., Jr. Interaction and attraction to the group. *Hum. Relat.*, 1956, 9, 481-489.
- Broxton, June A. A test of interpersonal attraction predictions derived from balance theory. *J. abnorm. soc. Psychol.*, 1963, 66, 394-397.
- Burstein, E., Stotland, E., & Zander, A. Similarity to a model and self-evaluation. *J. abnorm. soc. Psychol.*, 1961, 62, 257-264.
- Byrne, D. Interpersonal attraction and attitude similarity. *J. abnorm. soc. Psychol.*, 1961, 62, 713-715.
- Byrne, D. Response to attitude similarity-dissimilarity as a function of affiliation need. *J. Pers.*, 1962, 30, 164-177.
- Byrne, D., & Blaylock, Barbara. Similarity and assumed similarity of attitudes between husbands and wives. *J. abnorm. soc. Psychol.*, 1963, 67, 636-640.
- Byrne, D., & McGraw, C. Interpersonal attraction toward Negroes. *Hum. Relat.*, 1964, 17, 201-213.
- Byrne, D., & Nelson, D. Attraction as a function of attitude similarity-dissimilarity: the effect of topic importance. *Psychon. Sci.*, 1964, 1, 93-94.
- Byrne, D., & Wong, T. J. Racial prejudice, interpersonal attraction, and assumed dissimilarity of attitudes. *J. abnorm. soc. Psychol.*, 1962, 65, 246-253.
- Campbell, O. H. Objective behavior in dyads of self-, interaction-, and task-oriented members. Unpublished master's thesis, Louisiana State Univer., 1961.
- Cartwright, D. *Studies in social power*. Ann Arbor, Michigan: Institute for Social Research, Univer. of Mich., 1959.
- Cartwright, D., & Zander, A. (Eds.) *Group dynamics*. (2nd ed.) New York: Row, Peterson, 1960.
- Caplow, T. A theory of coalitions in the triad. *Amer. sociol. Rev.*, 1956, 21, 489-493.
- Cowen, E. L., Unterberg, Rita P., & Verrillo, R. T. The development and testing of an attitude to blindness scale. *J. soc. Psychol.*, 1958, 48, 297-304.
- Cox, D. F., & Bauer, R. A. Self-confidence and persuasibility in women. *Pub. Opin. Quart.*, 1964, 28, 453-466.
- Crockett, W. H., & Meidinger, T. Authoritarianism and interpersonal perception. *J. abnorm. soc. Psychol.*, 1956, 53, 378-380.
- Cronbach, L. J. Proposals leading to analytic treatment of social perception scores. In R. Tagiuri and L. Petrullo (Eds.), *Person perception and interpersonal behavior*. Stanford: Stanford Univer. Press, 1958, Pp. 353-379.
- Croner, M. D., & Willis, R. H. Perceived differences in task competence and asymmetry of dyadic influence. *J. abnorm. soc. Psychol.*, 1961, 62, 705-708.
- Dabbs, J. M., Jr. Self-esteem, communicator characteristics, and attitude change. *J. abnorm. soc. Psychol.*, 1964, 69, 173-181.
- Dittes, J. E. Attractiveness of group as function of self-esteem and acceptance by group. *J. abnorm. soc. Psychol.*, 1959, 59, 77-82.

- DiVesta, F. J., Meyer, D. L., & Mills, J. Confidence in an expert as a function of his judgments. *Hum. Relat.*, 1964, 17, 235-242.
- Edwards, A. L. *Edwards personal preference schedule*. New York: Psychological Corporation, 1959.
- Fauquier, W., & Vinacke, W. E. Communication and opinion as a function of member attractiveness and opinion discrepancy. *J. soc. Psychol.*, 1964, 63, 295-308.
- Festinger, L. A theory of social comparison processes. In A. P. Hare, E. F. Borgatta, & R. F. Bales (Eds.), *Small groups: studies in social interaction*. New York: Knopf, 1955, Pp. 163-187.
- Festinger, L., Schachter, S., & Back, K. *Social pressures in informal groups: a study of human factors in housing*. New York: Harper, 1950.
- Festinger, L., & Thibaut, J. Interpersonal communication in small groups. *J. abnorm. soc. Psychol.*, 1951, 46, 92-99.
- Fey, W. F. Acceptance by others and its relation to acceptance of self and others: a revaluation. *J. abnorm. soc. Psychol.*, 1955, 50, 274-276.
- Foa, U. G. Convergences in the analysis of the structure of interpersonal behavior. *Psychol. Rev.*, 1961, 68, 341-353.
- French, J. R. P., Jr., & Raven, B. The basis of social power. In D. Cartwright (Ed.), *Studies in social power*. Ann Arbor, Mich.: Institute for Social Research, 1959, Pp. 150-167.
- Frye, R. L., & Bass, B. M. Behavior in a group related to tested social acquiescence. *J. soc. Psychol.*, 1963, 61, 263-266.
- Garai, J. E. Support of judgmental independence or conformity in situations of exposure to strong group pressure. *Psychology*, 1964, 1 (3), 21-25.
- Gordon, J. E. Interpersonal predictions of repressors and sensitizers. *J. Pers.*, 1957, 25, 686-698.
- Gordon, J. E. The stability of the assumed similarity response set in repressors and sensitizers. *J. Pers.*, 1959, 27, 362-373.
- Gorfein, D. S. The effects of a nonunanimous majority on attitude change. *J. soc. Psychol.*, 1964, 63, 333-338.
- Gough, H. G. *California psychological inventory manual*. Palo Alto: Consulting Psychologists Press, 1957.
- Greer, F. L. Interpersonal knowledge and individual and group effectiveness. *J. abnorm. soc. Psychol.*, 1954, 49, 411-414.
- Halpin, A. W., & Croft, D. B. *The organizational climate of schools*. Chicago: Midwest Administration Center, The Univer. of Chicago, 1963.
- Harper, F. B. W., & Tuddenham, R. D. The sociometric composition of the group as a determinant of yielding to a distorted norm. *J. Psychol.*, 1964, 58, 307-311.
- Healey, J. H. *Executive coordination and control*. Columbus: Ohio State Univer., Bureau of Business Research, 1956, Monograph No. 78.
- Hemphill, J. K., & Westie, C. M. The measurement of group dimensions. *J. Psychol.*, 1950, 29, 325-342.
- Hoffman, L. R. Similarity of personality: a basis for interpersonal attraction. *Sociometry*, 1958, 21, 300-308.
- Homans, G. C. *The human group*. New York: Harcourt, Brace, 1950.
- Homans, G. C. *Social behavior: its elementary forms*. New York: Harcourt, Brace & World, 1961.
- Horney, Karen. *Our inner conflicts*. New York: W. W. Norton & Co., 1945.



- Hull, C. L. Goal attraction and directing ideas conceived as habit phenomena. *Psychol. Rev.*, 1931, 38, 487-506.
- Izard, C. E. Personality similarity and friendship. *J. abnorm. soc. Psychol.*, 1960, 61, 47-51.
- Jaffe, J., & Slote, W. H. Interpersonal factors in denial of illness. *AMA Arch. Neurol. and Psychiat.*, 1958, 80, 653-656.
- Jennings, Helen H. Sociometric grouping in relation to child development. In Caroline Tryon, R. J. Havighurst, Dorothy Oldendorf & Gladys Willcut (Eds.), *Fostering mental health in our schools: 1950 yearbook*. Association for Supervision and Curriculum Development. Washington, D.C.: National Education Association, 1950, Pp. 203-225.
- Kanfer, F. H., Bass, B. M., & Guyett, I. Dyadic speech patterns, orientation, and social reinforcement. *J. consult. Psychol.*, 1963, 27, 199-205.
- Katz, E., Libby, W. L., & Strodbeck, F. L. Status mobility and reactions to deviance and subsequent conformity. *Sociometry*, 1964, 27, 245-260.
- Kleiner, R. J. The effects of threat reduction upon interpersonal attractiveness. *J. Pers.*, 1960, 28, 145-155.
- Krech, D., Crutchfield, R. S., & Ballachey, E. L. *Individual in society*. New York: McGraw-Hill, 1962.
- Leary, T. F. *Interpersonal diagnosis of personality*. New York: Ronald Press, 1957.
- Linde, T. F., & Patterson, C. H. Influence of orthopedic disability on conformity behavior. *J. abnorm. soc. Psychol.*, 1964, 68, 115-118.
- London, P., & Lim, H. Yielding reason to social pressure: task complexity and expectation in conformity. *J. Pers.*, 1964, 32, 75-89.
- Luchins, A. S. Social influences in perception of complex drawings. *J. soc. Psychol.*, 1945, 21, 257-273.
- Luckey, Eleanor B. Marital satisfaction and its concomitant perceptions of self and spouse. *J. counsel. Psychol.*, 1964, 11, 136-145.
- Lundy, R. M. Self perceptions regarding masculinity-femininity and descriptions of same and opposite sex sociometric choices. *Sociometry*, 1958, 21, 238-246.
- Lundy, R. M., Katkovsky, W., Cromwell, R. L., & Shoemaker, D. J. Self-acceptability and descriptions of sociometric choices. *J. abnorm. soc. Psychol.*, 1955, 51, 260-262.
- McGrath, J. E. A descriptive model for the study of interpersonal relations in small groups. *J. psychol. Studies*, 1963, 14, 89-116.
- Maehr, M. L., & Mensing, J. Concept of self and the reaction of others. *Sociometry*, 1962, 25, 353-357.
- Martin, K. K. Conformity and conflict. *Dissert. Abstr.*, 1964, 24, 5587-5588.
- Mellinger, G. D. Communication, consensus, and interpersonal attraction. Unpublished doctoral dissertation, Univer. of Mich., 1955.
- Murstein, B. I. Some determinants of the perception of hostility. *J. consult. Psychol.*, 1958, 22, 65-69.
- Murstein, B. I. The effect of amount of possession of the trait of hostility on accuracy of perception of hostility in others. *J. abnorm. soc. Psychol.*, 1961, 62, 216-220.
- Newcomb, T. M. *Social psychology*. New York: Dryden, 1950.
- Newcomb, T. M. An approach to the study of communicative acts. In A. P. Hare, E. F. Borgatta, & R. F. Bales (Eds.), *Small groups: studies in social interaction*. New York: Knopf, 1955, Pp. 149-163.

- Newcomb, T. M. The prediction of interpersonal attraction. *Amer. Psychologist*, 1956, 11, 575-586.
- Newcomb, T. M. Stabilities underlying changes in interpersonal attraction. *J. abnorm. soc. Psychol.*, 1963, 66, 376-386.
- Osgood, C. E., Suci, G. J., & Tannenbaum, P. H. *The measurement of meaning*. Urbana: The Univer. of Illinois Press, 1957.
- Pepitone, A., & Sherberg, Janet. Intentionality, responsibility, and interpersonal attraction. *J. Pers.*, 1957, 25, 757-766.
- Reese, H. W. Relationships between self-acceptance and sociometric choice. *J. abnorm. soc. Psychol.*, 1961, 62, 472-474.
- Reitan, H. T., & Shaw, M. E. Group membership, sex-composition of the group, and conformity behavior. *J. soc. Psychol.*, 1964, 64, 45-51.
- Rim, Y. Social attitudes and risk-taking. *Hum. Relat.*, 1964, 17, 259-265.
- Rosenfeld, H. M. Social choice conceived as a level of aspiration. *J. abnorm. soc. Psychol.*, 1964, 68, 491-499.
- Rosenzweig, S. *Rosenzweig picture-frustration study manual: revised form for adults*. St. Louis, Mo.: Author, 1947.
- Sabath, G. The effect of disruption and individual status on person perception and group attraction. *J. soc. Psychol.*, 1964, 64, 119-130.
- Schaefer, E. S., Bell, R. Q., & Bayley, Nancy. Development of a maternal behavior research instrument. *J. genet. Psychol.*, 1959, 95, 83-104.
- Schein, E. H. Interpersonal communication, group solidarity, and social influence. *Sociometry*, 1960, 23, 148-161.
- Schutz, W. C. *FIRO: a three-dimensional theory of interpersonal behavior*. New York: Rinehart and Co., 1958.
- Schutz, W. C. On group composition. *J. abnorm. soc. Psychol.*, 1961, 62, 275-281.
- Sears, R. R. A theoretical framework for personality and social behavior. *Amer. Psychologist*, 1951, 6, 476-483.
- Secord, P. F., & Backman, C. W. Interpersonal congruency, perceived similarity, and friendship. *Sociometry*, 1964, 27, 115-127.
- Sherif, M. A study of some social factors in perception. *Arch. Psychol.*, 1935, 27 (187), 5-60.
- Shibutani, T. *Society and personality: an interaction approach to social psychology*. Englewood Cliffs, N.J.: Prentice-Hall, 1961.
- Simmel, G. On the significance of numbers for social life. In K. H. Wolff (Ed.), *The sociology of Georg Simmel*. Glencoe, Ill.: Free Press, 1950, Pp. 87-104.
- Smelser, W. T. Dominance as a factor in achievement and perception in cooperative problem-solving interaction. *J. abnorm. soc. Psychol.*, 1961, 62, 535-542.
- Smith, C. E. The effect of anxiety on the performance and attitudes of authoritarians in a small group situation. *J. Psychol.*, 1964, 58, 191-203.
- Steiner, I. D., & Field, W. Role assignment and interpersonal influence. *J. abnorm. soc. Psychol.*, 1960, 61, 239-246.
- Stern, G. G., & Masling, J. M. *Unconscious factors in career motivation for teaching*. Final Report, U. S. Office of Educ., Cooperative Research Branch, Research Project No. SAE 6459, 1958.
- Stimpson, D. V., & Bass, B. M. Dyadic behavior of self-, interaction-, and task-oriented subjects in a test situation. *J. abnorm. soc. Psychol.*, 1964, 68, 558-562.

- Stogdill, R. M. *Individual behavior and group achievement: a theory: the experimental evidence*. New York: Oxford Univer. Press, 1959.
- Stogdill, R. M., & Haase, Kathellen K. Structures of working relationships. In R. M. Stogdill (Ed.), *Leadership and structures of personal interaction*. Columbus: Ohio State Univer., Bureau of Business Research Monograph, 1957, No. 34.
- Stotland, E., & Zander, A. Effects of public and private failure on self-evaluation. *J. abnorm. soc. Psychol.*, 1958, 56, 223-229.
- Stotland, E., Zander, A., & Natsoulas, T. Generalization of interpersonal similarity. *J. abnorm. soc. Psychol.*, 1961, 62, 250-256.
- Sullivan, H. S. *The interpersonal theory of psychiatry*. New York: Norton, 1953.
- Tagiuri, R. Studies in perception of interpersonal feelings. *Res. Rev.*, ONR, Dept. of the Navy, Washington. 1956 (April), 15-21.
- Tagiuri, R., Blake, R. R. & Bruner, J. S. Some determinants of the perception of positive and negative feelings in others. *J. abnorm. soc. Psychol.*, 1953, 48, 585-592.
- Tagiuri, R., & Kogan, N. The visibility of interpersonal preferences. *Hum. Relat.*, 1957, 10, 385-390.
- Tagiuri, R., Kogan, N., & Bruner, J. S. The transparency of interpersonal choice. *Sociometry*, 1955, 18, 624-635.
- Taylor, F. K. Display of dyadic emotions. *Hum. Relat.*, 1957, 10, 257-262.
- Taylor, Janet A. The relationship of anxiety to the conditioned eyelid response. *J. exp. Psychol.*, 1951, 41, 81-92.
- Thelen, H. A. *Dynamics of groups at work*. Chicago: Univer. of Chicago Press, 1954.
- Thibaut, J. W., & Kelley, H. H. *The social psychology of groups*. New York: John Wiley and Sons, Inc., 1959.
- Thibaut, J. W. & Strickland, L. H. Psychological set and social conformity. *J. Pers.*, 1956, 25, 115-129.
- Thrasher, J. D. Interpersonal relations and gradations of stimulus structure as factors in judgmental variation: an experimental approach. *Sociometry*, 1954, 17, 228-241.
- Thurstone, L. L., & Chave, E. J. *The measurement of attitude*. Chicago: Univer. Chicago Press, 1929.
- Triandis, H. C. Cognitive similarity and communication in a dyad. *Hum. Relat.*, 1960, 13, 175-183.
- Turk, H., & Wills, G. R. Authority and interaction. *Sociometry*, 1964, 27, 1-18.
- Videbeck, R. Self-conception and the reaction of others. *Sociometry*, 1960, 23, 351-359.
- Vinacke, W. E. Intra-group power relations, strategy and decisions in inter-triad competition. *Sociometry*, 1964, 27, 25-39.
- Wallen, N. E., Travers, R. M. W., Reid, I. E., & Wodtke, K. H. Relationships between teacher needs and teacher behavior in the classroom. *J. educ. Psychol.*, 1963, 54, 23-32.
- Williams, J. E. Acceptance by others and its relationship to acceptance of self and others: a repeat of Fey's study. *J. abnorm. soc. Psychol.*, 1962, 65, 438-442.
- Wolff, K. H. (Ed.) *The sociology of Georg Simmel*. Glencoe, Ill.: The Free Press, 1950.

- Wright, Beatrice A. *Physical disability — a psychological approach*. New York: Harper & Brothers, 1960.
- Zander, A., & Havelin, A. Social comparison and interpersonal attraction. *Hum. Relat.*, 1960, 13, 21-32.
- Zimmer, H. Motivational factors in dyadic interaction. *J. Pers.*, 1956, 24, 251-261.