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FRIENDSHIP AND SOCIAL STRUCTURE: A PRELIMINARY OUTLINE OF A SOC--ETC(U)
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While the "attraction literature" is voluminous it lacks common concepts and measures. Investigators have failed to distinguish between attraction and friendship, and have ignored both pair relations and the structural context of most such relations in the real world. Beginning with a definition of friendship as the cooccurrence of attraction and relationship, the author then examines those factors which lead to each and then to their cooccurrence. Social structure consists of positions and their

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relationships. Characteristics of positions in social structure which influence friendship include acquaintance opportunity, rank and cooperative versus competitive interests. Norms associated with positions which influence attraction include norms of social desirability (including a norm of desirability of attraction) and norms of etiquette. Normatively governed interpositional relations are controlled by positive and negative sanctions. The probability of sanction can be anticipated by a position incumbent. Shaping is unnecessary since the incumbent already possesses information about the reinforcement schedule.

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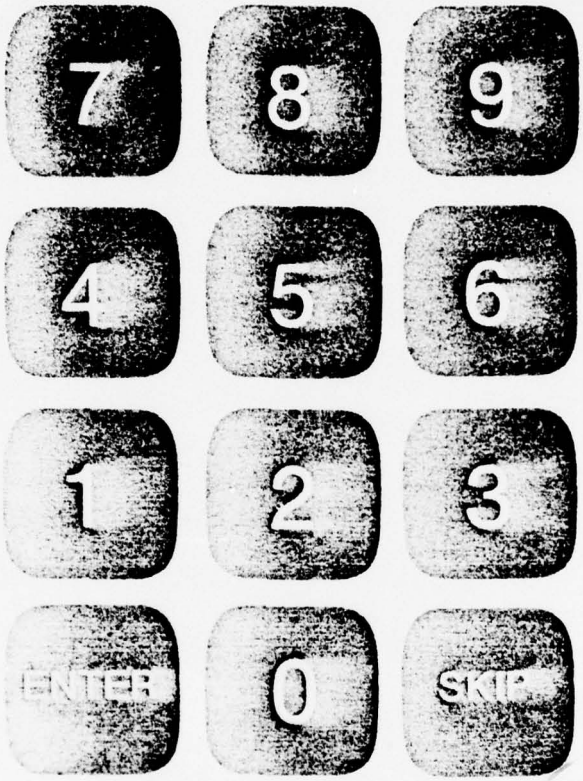

Observations

TITLE FRIENDSHIP AND SOCIAL STRUCTURE: A PRELIMINARY OUTLINE OF A SOCIAL PSYCHOLOGICAL THEORY

AUTHOR Richard E. Sykes, Ph.D.

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TR #2--February 16,1977

FRIENDSHIP AND SOCIAL STRUCTURE: A PRELIMINARY OUTLINE OF A SOCIAL PSYCHOLOGICAL THEORY

by

Richard E. Sykes, Ph.D.

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INTRODUCTION

The literature on attraction focused either on hypothetical others or on actual friends. Little attention was given to the possibility that there is a difference between attraction and friendship.

A theory of friendship encompasses a broader range of variables than one of attraction. A theory of friendship is necessary which integrates not only findings about attraction but also about the normative structure of the relationships in which attraction normally occurs.

LITERATURE REVIEW

During the 1960's the literature on similarity-attraction displayed two different emphases - one on internal and the other on external validity. The first, notably represented by Byrne, steadily expanded its purview, exploring the basic relation under different scope conditions and continuously relating fact to theory. The second had no single champion, at least until recently. Methodologically, the former was primarily experimental while the latter was survey oriented.

Byrne

Byrne's most important discovery was that attraction is a linear function of the proportion of attitude items on which a subject and hypothetical stranger agree (each agreement is considered a positive reinforcement) (Byrne and Nelson, 1965). This finding was replicated many times. Subsequent research has specified the scope conditions. The literature on the Byrne paradigm is vast. Among the findings are: attitude statements agreeing with a subject's are positively reinforcing (Golightly and Byrne, 1964); reinforcement of self-evaluation increases attraction (Byrne and Rhamey, 1965); attraction is greater after increasing drive state for positive reinforcement (Worchel and Schuster, 1966); low social class attraction to higher social class strangers is an exception to the linear formula (Byrne, Clore and Worchel, 1966); authoritarianism does not effect attraction (Sheffield and Byrne, 1967); the attraction effect does

not hold for otherwise similar strangers who are labelled as mentally ill (Novak and Lerner, 1968, but see also Byrne and Lamberth, 1971); topic importance may influence the attraction effect under some conditions (Byrne, London, and Griffitt, 1968 and Clore and Baldridge, 1970); personality variables have little influence on the attraction effect (Wiener, 1970); when more than one hypothetical stranger is presented simultaneously the number as well as proportion of attitudes influences effect (Gouaux and Lamberth, 1970); structural as well as evaluative effects influence attraction (Tesser, 1971); subjects who are unsuccessful performing a task are not attracted to similar failures any more than successful subjects are attracted to dissimilar successfuls (Senn, 1971); anticipated rewards for future interaction do not influence the effect (Insko, et al., 1973); the similarity-attraction effect is found in natural groups when a) Byrne's measurement procedures are used; b) the subjects are previously unacquainted and may freely interact with each other; c) they are not informed ahead of time of the others' attitudes (Griffitt and Veitch, 1974); low self-esteem subjects are an exception to the attraction effect (Leonard, 1974); anticipation of actual interaction with an opposite sex stranger depresses the attraction effect (Layton and Insko, 1974); interpersonal attraction may not be central to cohesiveness in certain kinds of work groups (Anderson, 1975); only those forms of similarity which imply some interpersonal reinforcement value influence attraction (Santee, 1976). This latter finding seems contrary to Insko, et al. (1973).

Findings in regard to ethnic similarity are somewhat confusing. Byrne and Wong (1962) found that highly prejudiced subjects imputed dissimilar attitudes to Blacks and that assumed attitude dissimilarity accounted for more variance than color. Using a videotape Hendrick, Bixenstine and Hawkins (1971) came to somewhat similar conclusions. Generally, Byrne concluded that "any stimulus variable which has a positive or negative reinforcement value has an effect on attraction" (Byrne and Ervin, 1969). For this reason attitude similarity and positive evaluation by other may decrease the effect of prejudice on attraction. It is still not clear whether Byrne and McGraw's conclusion (1964) that only extreme agreement effects prejudiced subjects still holds.

A very complete summary of findings by scientists related to the Byrne paradigm may be found in Byrne (1971).

A number of recent studies raised important doubts about Byrne's explanation of the attraction effect. At least three studies (Touhey, 1974; Posaval and Pasko, 1974; and Johnson and Gormly, 1975) suggest that social desirability rather than attitude similarity effects attraction. Subjects are attracted to hypothetical, same-sexed strangers who endorse socially desirable statements. Posaval and Pasko found that subjects were not attracted so much to those who held less frequently endorsed attitudes. Other studies suggested that attitude similarity is not as important as liking (Aronson and Worchel, 1966) or self-concept support (Bailey, Finney and Helm, 1975). In a reversal somewhat like that of Newcomb in regard to proximity and similarity, Bailey, Finney and Helm suggested that perceived similarity is only important in shorter friendships. Self-concept support is more important in longer friendships. This tends to be consistent with Wright's model of friendship relations (1969) in which ego support is an important variable. It appears then that liking breeds liking (Backman and Secord, 1959), that persons who hold socially desirable (conventional?) attitudes are attracted to those who endorse those attitudes, and that attraction is a function of self-concept support even when dissimilar attitudes are endorsed. Of course, while these findings raise questions about effects of attitude similarity-dissimilarity they are much less serious competitors of the reinforcement explanation of which the former is a part. Liking by other, self-concept support or social desirability may simply be stronger reinforcers. Byrne, Baskett and Hodges (1971) would support such an interpretation.

A Critique of Similarity Research: The Byrne Paradigm

In a typical Byrne-like experiment the subject indicates the extent of his attraction to a hypothetical, same-sexed stranger based on the stranger's presumed response to certain structured questionnaire items. The subject's responses to these same items are already known to the investigator. Under these conditions attraction has been proven to be a function of proportion of similar responses.

The obvious weakness of this paradigm is that it does not reflect the actual acquaintance process, except in the case of strangers who have heard about each other beforehand. The actual process involves not only the information inferred from "the overt stimulus properties of other individuals" (Byrne, 1971, 119), but seeking information about the other within a structure of rules *governing how strangers* should act in each others presence. These rules are situation specific. One responds to same-sexed strangers differently at parties, bus stops, the store, poker games and in an alley at night. The similarities which might be attractive at a party are not necessarily those which might be attractive in a crisis. It follows that the proportion should be relative to those attitudes salient in a specific situation.

If similarity is a code word for positive reinforcement then any instance of interpersonal positive reinforcement will lead to attraction. Under some conditions other reinforcements will be more salient than attitude similarity. For instance, Santee (1976) reported that only attitude's associated with reinforcement expectations were associated with attraction. In real life the theoretical problem of whether similars

attract is confounded by the problem of how important attitude similarity is, i.e., what proportion of variance is explained by this as compared to other variables. If, in a laboratory setting where little information is provided, 40-60% of the variance is accounted for, then is it realistic to expect as strong an effect in the complexity of the real world? While Byrne has himself noted the tenuous relation between attitudes and behavior, and therefore the expected low association between attitude and sociometric choice, much of the interest in attraction is not merely in a still, small symbolic construct which never determines behavior, but in the forces, reasons and intentions which actually determine whether or not informal groups are generated.

A third question is raised by the field experiment conducted by Griffitt and Vietch (1974) in which they confirmed that in a realistic situation attraction was a linear function of proportion of actual similarity. In this experiment the subjects were 16 males who had been given a Byrne-like attitude test before spending ten days in a fall-out shelter. The problem with this study is that it seems remarkable that, in the absence of any evidence, the specific attitudes on which the proportion was based should be the important attitudes in the attraction function. The number of objects toward which real people have actual or potential attitudes is very large. These are not unrelated, but organized and differentiated. If, in real life, proportion of actual attitudes shared is strongly related to attraction, then the problem arises as to which attitudes of the two subjects account for the proportion. It would seem that only an attitude test which is a sample of the population of attitudes of each person would be adequate, one which tapped the actual proportion shared. Yet there was no evidence that in fact the test administered was a representative sample of the population of attitudes.

Suppose, for instance that the test sampled 20 attitude objects and that the subjects agreed on 50% of these. But suppose each subject (as is likely) had attitudes towards 20 other objects not included in the test. If these were included then the proportion would change. If this proportion changed, then the level of predicted attraction would change. How then is it that only those items on the test predicted attraction? Could it be that administering the test before the experiment provided the subjects with a hidden agenda to talk about for the subsequent ten days. Those particular attitudes were given an importance in the context of the experiment they might not otherwise have had. A much more convincing demonstration would have been to give the test in a context ostensibly unrelated to the experiment or experimenters, or else to administer it afterwards.

This is a special case of a general problem effecting all research on interpersonal attraction in which several previously unacquainted subjects are involved and in which the gradual structuring of the affect of the group is to be explained. In such a case each subject almost always has diverse characteristics or attitudes in common with many different subjects. He agrees with one subject about the United Nations, with another about labor unions and with a third about sex after death. Like him, the first subject is middle class but unlike him is from Wheatfield, North Dakota, population 10 1/2. Like him, the other two subjects are from large urban areas, but unlike his parents their parents were divorced and were on AFDC. The most difficult problem is not discovery of whether similarity attracts, but which similarity and what the scope conditions are for the relationship!

Studies Outside the Byrne Paradigm

In addition to experimants conducted by the Byrne group at least one field experiment was conducted relevant to the understanding of attraction. Brown (1968) reported a study in which science and humanities students were assigned to floors of a dormitory in different ratios. Unfortunately, his results were reported in terms of the success of the experiment in influencing attitudes and the acquaintance process, rather than in providing a full report on the similarity variables. He found that in the absence of the kind of manipulations reported in the experiment, science and humanities students associated primarily with students with similar intellectual interests and attitudes. This strengthens Newcomb's rather weak finding (1961, 88-89) that college of enrollment had an effect on attraction.

While not experiments, Newcomb's (1961) and Curry and Emerson's (1970) controlled field studies dealt with a number of types of similarity. Curry and Emerson did not control for demographic differences, but Newcomb found some weak effects, especially during the early phases of the acquaitance process, of age, urban or rural origin, and religion. It should be remembered that the subjects in both studies were relatively homogeneous. Both reported somewhat weak effects for value similarity, but for Curry and Emerson these were only for "perceived" value similarity. During the first year of his study, Newcomb found that specific attitute similarity contributed to the accurate prediction of later attraction. In both studies attraction to a third subject was predictive of attraction between the others.

In addition to those reviewed above a number of survey or observational

studies have been conducted in the field among various populations. In a sense Festinger, Schachter and Back's (1950) discussion of social pressures in informal groups was about similarity of norms and attitudes. Such similarity was related to attraction. Loomis and Proctor (1950) found that librarians and county agents were attracted to others of higher income and length of service. This might be interpreted as attraction as function of dissimilarity. Maisonneuve (1952) reported that having attended the same lower school effected choices by boarding school students. Masling, Greer and Gilmore (1955) in a study of 2,139 Naval recruits and 900 infantrymen concluded that the respondents were attracted to those of higher status (another instance of the importance of dissimilarity). Mehlman (1962) in a study of 200 students concluded that there was "less than compelling evidence for general tendencies toward either similarity or complementarity in friendships". Barnlund and Harland (1963) found that prestige was an important determinant of choice. In 1965, Rosenfeld and Jackson in a study of a telephone company office reported that personality similarity was important only on short acquaintance. The most important similarity variable in Priest and Sawyer's study (1967) of a college dormitory was peership, membership in the same college class.

Laumann (1969) found that the choices of urban men were partially a function of similar attitudes. Glick and Jackson (1970), in a sutdy of Mennonite students discovered that initial normative similarity was predictive of subsequent choice. In Wright's study (1971) friendship among men was associated with preference for similar day-to-day activities but not with attitude similarity. One interpretation of Bernard and Killworth's research

aboard a research vessel (1973) is that persons of like occupation and status are attracted to each other. In an examination of an urban neighborhood Athanasiou and Yoshioka (1973) concluded that life cycle similarity was important in friendship formation but that social class was important only when distance was great. Wheaton(1974) found that social class contributed little to cohesiveness. Finally, Nahemow and Lawton (1975) studied 270 residents of a city housing project. Similarity of age, race and sex were especially important when friends lived at a distance from each other.

A Critique of Studies Outside the Byrne Paradigm

The numerous problems with these studies include: 1) samples in which certain independent variables are attenuated in their effect by homogeneity of the sample; 2) lack of a common measure of attraction; 3) failure to deal with the behavorial correlates of attraction.

Sample homogeneity

One example will suffice. Demographic variables have little variation. Many studies have been conducted on student populations which typically include a very narrow age range, as well as a narrow range of social class difference. Under such conditions demographic effects will be limited. Because many American neighborhoods are homogeneous in regard to social class, even community studies leave much to be desired in this regard.

Lack of a common, adequate measure of attraction

The following are frequently used indices of attraction: a)mutual limited sociometric choice; b) unilateral limited sociometric choice; c) sociometric ranking of all group members; d) rating of a particular individual (such as

a roommate) by a subject; e) subject nominations of particular friends. In many cases the rationale for one as opposed to another measurement instrument is not given. My impression is that most instruments are chosen either because they are those conventionally used or because they are convenient given the limits of time and accessibility inherent in the average study.

Poor choice of an instrument may be due to failure to distinguish between attraction (a psychological variable) and friendship (a social relation). Many of Wright's criticisms of Byrne are based on the former's tendency to fail to distinguish between attraction and friendship. Choice alone is evidence of attraction, but not of friendship. Even mutual choice is not evidence of friendship as defined by Wright, since sociometric choice is no longer assumed to reflect behavior.

Both mutual and unilateral limited choice have many inherent limitations (Holland and Leinhardt, 1973; Bernard and Killworth, 1973), including an arbitrary limit on the number of others who may be designated as attractees or friends, with concomitant distortions in the affective structure of the group. At present it appears that ranking of all group members is the most adequate technique. Ratings of particular individuals or subject nominations of particular friends limit the variance in the dependent variable by failing to include those who might have become friends, but did not. Without including some representatives of this group there is no way to know that they are not in fact more similar to the subject than those he rated or nominated.

Quite apart from these problems use of different instruments makes comparison between studies difficult.

Behavioral Correlates of Attraction. I have already noted the failure of some investigators to distinguish between attraction and friendship. There is also a failure to distingiish between what people say they feel or do and what they actually do. Virtually all other studies tap only the subject's feelings, or his perceptions of a relationship. For instance, Nahemow and Lawton (1975) interviewed residents of a city housing project. The interviewer said, "I'm going to ask you some questions about your best friends in the project. I'd like to know whether they live in this building or not, how often you get together, and where you meet." Of course this question leaves to the respondent the problem of deciding what constitutes a "best friend", which is perhaps unavoidable, but also assumes the accuracy of the respondent's perception of frequency and location of contact. There are no objective data on the actual contacts between unilateral or mutual friends. Curry and Emerson also fail (as did Newcomb) to provide any data on the actual behavioral correlates of attraction. Did those attracted to one another actually associate with each other more frequently, spend their leisure time together, or discuss their value orientations? Unless behavioral data are collected, not only are the processes that lead from similarity to attraction left unspecified, and certain anomolous results not accounted for (perhaps certain similars are not attracted because they never found out about their similarities), but the actual meaning of the findings in terms of group behavior, as opposed to perception by group members of each other, is unknown. Obviously, the study of an entirely "cognitive" variable is completely legitimate, but most

research is read with the covert assumption that tendicies toward bahavior are being described.

A SYSTEMATIC APPROACH TO SIMILARITY AND ATTRACTION

Taking both studies within the Byrne paradigm and others together, perhaps the most fundamental problem is the lack of a common theoretical and conceptual orientation. They are characterized by a failure to agree on the meaning of basic concepts as well as on the operations necessary to measure them. In recent years Byrne has spent much time defending himself against critics who base their views not only on different theories but who sometimes use the same words but mean different things (among the crirics are Wright, 1969; 1971; Wright and Crawford, 1971; Levinger, 1972; Wright and Wright, 1972; Doherty and Secord, 1971; Kaplan and Anderson, 1973a; 1973b - Byrne's refutations include Byrne and Lamberth, 1971; Byrne, 1971; Byrne, Clore, Griffitt, Lamberth and Mitchell, 1973; and Moss, Byrne, Baskett and Sachs, 1975). Proponents of these different perspectives tend to manifest ambiguity or confusion in regard to the most fundamental terms and variables in their discussion, including the concepts of "attraction, "friendship", "proximity", "similarity", "status", and perhaps even "attitude". It is now necessary to define each of these systematically and relate it to theory.

Attraction and Friendship

In most non-experimental studies cited the dependent variable was attraction as measured by some sociometric scale. Other studies utilized information on identity of friends, or treated friendship as a dependent variable (for instance, Wright - 1969). A clear distinction must be made between attraction and friendship.

"Attraction" is a feeling experienced by one person. A person can be attracted to another without displaying any behavioral manifestation of his attraction. Attraction is not a relationship. No manifest behavioral display is necessary.

"Mutual attraction" is a term used to designate the individual subjective feelings of two persons toward each other. Mutual attraction does not imply knowledge by either actor of the other's feelings nor any necessary behavioral relation between the two.

The attraction scale ranges from attraction (positive affect) down throughh neutrality to repulsion (negative affect). "Liking" is synonymous with attraction and "disliking" with repulsion. The study of attraction is also the study of repulsion. Just as it does not make sense to speak of an object devoid of a temperature, it does not make sense to speak of a human being devoid of an attraction response toward another.

Since Byrne's focus is on hypothetical attraction, the definition above should be consistent with his. He has tended to focus only on the positive end of the scale. A minimal meaning for attraction is a shift to a less neutral affective response.

A "relationship" is a repeated series of focused, coordinated behaviors between two people. A relationship may involve either an exchange and coordination of actors' verbal behavior or non-verbal behaviors or both. A relationship may or may not be task-oriented. In and of itself the concept of relationship is affectively neutral. It implies nothing about attraction.

"Friendship" is a mutual affectively positive relationship. Wright's criterion of friendship (1969), "the degree of voluntary interdependence", is too narrow a criterion for general use. Many people who would subjectively consider themselves to be friends are not at all interdependent, unless casual or formal participation in each other's dinners, cocktail parties and the like is included. To use such activities as a synonym for friendship is to confuse the manifestation with the phenomenon itself. Futhermore, while friends may have been interdependent at one time in their

lives, changes in job, residence, or life cycle state may have ended such interdependence without changing the perception of friendship. By definition, then, friendship consists of either a past or present relationship and mutual attraction.

Attraction may occur in the absence of a relationship (otherwise Byrne's experiments would be impossible). A relationship may exist without attraction, or with unilateral attraction. Since friendship, by definition requires both a relationship and mutual attraction it is hypothesized that:

1. Relationship leads to attraction.
   Attraction leads to mutual attraction.
   Therefore: friendship.

2. Attraction leads to relationship.
   Relationship leads to mutual attraction.
   Therefore: friendship.

3. Mutual attraction leads to relationship.
   Therefore: friendship.

4. Relationship leads to mutual attraction.
   Therefore: friendship.

Figure 2.1

Four Models of Attraction and Friendship

1. Relationship ⟶ Attraction ⟶ Mutual Attraction ⟶ Friendship
2. Attraction ⟶ Relationship ⟶ Mutual Attraction ⟶ Friendship
3. Mutual Attraction ⟶ Relationship ⟶ Friendship
4. Relationship ⟶ Mutual Attraction ⟶ Friendship

The difference between models 1 and 2 and models 3 and 4 is temporal. Attraction of each to the other occurs simultaneously in models 3 and 4, while attraction of the one to the other occurs first in models 1 and 2.

Since either attraction or relationship can occur without the other, it is necessary to consider the conditions for the occurence of each.

"Friendship" is not directly caused by either attraction or relationship since it is merely the simultaneous presence of both. The occurence of the one may increase the probability of the other occuring. Relationship leads to attraction and visa versa. "Attraction" should be understood as a shift to a less neutral affective response, and includes both the negative and positive poles of the continuum. The understanding of friendship requires the study of attraction, mutual attraction, and of relationship.

Indirect and Direct Information

For attraction to occur the one must possess information about the other. Information may be indirect or direct. Indirect information may be either a product resulting from the activity of the other (such as the questionnaire purportedly filled out by Byrne's hypothetical strangers; videotapes of the other as is common in cases of attraction to television stars; columns written by the other in the newspaper or perhaps an art object created by the other), or symbolic material "about" the other (such as lists of descriptive adjectives, anecdotes told by mutual friends, and newspaper accounts).

Direct information is obtained in the absence of relationship by seeing or hearing the other. Dress, sex, color, age, likely socioeconomic status and personality are inferred from observing or overhearing someone without entering directly into a relationship. In more specific situations - as at work - much more is inferable. Theories of person perception and attribution are directly relevant to the understanding of attraction in the absence of relationship.

Relationship permits face to face information search. More information may be elicited from the other. Disclosure may occur in relationship and opinions may be learned directly about which no indirect evidence exists. Relationship opens up the possibility of obtaining information directly relevant to the seeker's needs.

Attraction Without Relationship

Under conditions of attraction without relationship a reinforcement explanation is only tenable if a) the information is reinforcing, or b) the information increases probability of reinforcement. Essentially Byrne's theory is that because the information contained in the expression of a similar attitude is reinforcing the stranger associated with the information becomes reinforcing too. This could occur in either of the cases above.

If the first alternative is correct, then it is necessary to specify what information is reinforcing. For instance, if one were curious about something, and the other satisfied one's curiousity, then the information provided by the other would be reinforcing and one would be attracted to the other. This would be a case of reinforcement but not of similarity.

Almost any kind of information might lead to attraction for the person with the "right" reinforcement history. Like the hypothetical stranger, information itself may be accidentally associated with some more primary reinforcers. Yet, it is likely that in a normal social world certain information would almost always be reinforcing and certain information would almost always increase the probability of reinforcement. Research should turn from too exclusive concern with attitude similarity to the study of whether persons are attracted to those who communicate reinforcing information to them (the general case of attitude similarity) or who communicate information which increases the probability of reinforcement and whether some information is not reinforcing at all. For instance, are persons attracted to those who teach them valuable skills?

There are many other kinds of similarity than attitude similarity, but most of these have not been related to a general theoretical orientation. It is necessary to specify whether these other types of similarity constitute reinforcing information or information increasing the probability of reinforcement.

It seems reasonable to hypothesize that ...

In the absence of relationship:
Reinforcing information leads to attraction.

and

Information which increases the liklihood of reinforcement leads to attraction.

The most common instances of relationship are position-specific relations which are normatively regulated, for instance, between clerk and customer, teacher and student, or employee and employer. Such relations often involve proximity factors, but in addition provide opportunity to secure both indirect and direct information.

Relationship Leading to Attraction

It is hypothesized that relationship leads to attraction either because the relationship itself has an outcome reinforcing to both (a team of successful bank robbers) or because more reinforcing information is discovered during a relationship. Relationship leads to information which leads to attraction.

Attraction Leading to Relationship

Why does attraction lead to relationship? It is hypothesized that it leads to relationship either because of the anticipation that if a relationship is entered it will be directly rewarding or because through it more information can be secured.

Attraction and Mutual Attraction

Finally, why does attraction lead to mutual attraction? Actually it does not! Information that the other is attracted to the one leads to attraction. The proposition that liking breeds liking has been confirmed in several experimental studies. Liking in itself is reinforcing.

The study of attraction becomes the study of reinforcing information and information which increases the probability of reinforcement, and of those factors in addition to attraction which lead persons to enter a relationship.

Some of these associations may be represented somewhat more formally as follows:

Definitions

$P =_{df}$ person

$O =_{df}$ other person

$I_{PO} =_{df}$ information given by P to O

$I_{A_{PO}} =_{df}$ information that P is attracted to O

$I_s =_{df}$ information that P is or is not similar to O in some way

$P_{PO} =_{df}$ reinforcer of O associated by O with P

$$I_{A_{PO}} \propto PP_{PO} \quad \text{and} \quad I_s \propto PP_{PO}$$

$R =_{df}$ interpersonal relationship between P and O

$A_{PO} =_{df}$ asymmetrical attraction of P to O

$A =_{df}$ symmetrical attraction between P and O

$F =_{df}$ friendship between P and O

$\dashrightarrow =_{df}$ hypothesized statistically significant association

Hypotheses

$I_{OP} \dashrightarrow P_P \dashrightarrow A_{PO}$

$I_{A_{PO}} \dashrightarrow A_{OP}$

$A_{PO} + A_{OP} = A$

$IP_{OP} \dashrightarrow A_{PO}$

$I_{A_{PO}} \dashrightarrow A_{OP}$

$A_{PO} + A_{OP} = A$

$R_{PO} \equiv R_{OP}$

$R_{PO} \longrightarrow P_{OP} \longrightarrow A_{PO}$

$R_{OP} \longrightarrow P_{PO} \longrightarrow A_{OP}$

$R_{PO} + R_{OP} = R$

$A_{PO} + A_{OP} = A$

$A + R = F$

$R_{PO} \longrightarrow IP_{OP} \longrightarrow A_{PO}$

$R_{OP} \longrightarrow IP_{PO} \longrightarrow A_{OP}$

$R_{PO} + R_{OP} = R$

$A_{PO} + A_{OP} = A$

$A + R = F$

$R_{PO} \longrightarrow IP_{OP} \longrightarrow A_{PO}$

$I_{A_{PO}} \longrightarrow A_{OP}$

$A_{OP} \longrightarrow R_{OP}$

$A_{OP} + A_{PO} = A$

$R_{PO} + R_{OP} = R$

$A + R = F$

It is evident that there are many permutations of relationship, attraction and reinforcement which may lead to friendship.

Information and Attitudes

Within the Byrne paradigm attraction is a function of attitude similarity because the person who holds attitudes perceived by the subject to be similar or dissimilar to his own comes to be associated with the subject's covert affective response to those attitudes. Such covert affective responses derive from a reduction of or increase in the effectance motive, a learned drive to interpret the social environment logically and correctly (Byrne and Clore, 1970; Byrne, 1971).

Byrne's theory is an extension of Festinger's theory of social comparison processes (1954). Because there is no objective basis for testing the adequacy of opinions about social reality persons seek support for their attitudes from others. Self-other attitude consensus satisfies the drive to correctly understand the social environment. Attraction occurs because those who agree with us come to be associated with their agreement. The expression of an attitude is an unconditional stimulus to the effectance motive. The holder of the attitude becomes the conditional stimulus. If the expression of the attitude has reduced the drive, then attraction occurs. If the expression has strengthened it, then repulsion occurs.

Recently Byrne acknowledged that "both affective and informational components are involved in the relationship between attitudinal agreement and attraction" (Moss, Byrne, Baskett and Sachs, 1975). His research was conducted in response to the claim that the linear function describing the relationship between similarity and attraction was a special case of a function expected if the stimuli were considered informers instead of reinforcers (Kaplan and Anderson, 1973; Anderson, 1968).

The problem raised by both the reinforcement and information theory is that they fail to account for the effects of other kinds of similarity than attitude similarity on attraction.

Structural Factors Associated with Attraction

Attraction has been studied as a function of similar -- attitudes, college of enrollment, values, other persons considered as attitude objects, norms, income, years of service, popularity, social desirability, common schools attended, military rank, prestige, personality, peership, age, color, religion, social class, education, occupation, and sex. A "Wouldn't it be interesting to look at --?" approach seems to have characterized most investigations, Byrne excepted. But Byrne's hypothetical explanation of the attraction phenomenon in terms of the affectance motive is not very satisfactory for many of these other types of similarity. The reason why sharing similar college of enrollment should reduce the effectance motive is not self-evident. Certain anomalies appear even in attitude-related experiments.

Moss, Byrne, Baskett and Sachs (1975) acknowledged that most research had presented the hypothetical stranger to the subject as a same-sex peer, i.e., another college student. The average subject expected that the hypothetical-stranger-same-sex-student-peer would share .74 similarity of attitudes with him. Student subjects expected hypothetical student strangers to be pretty much like themselves. This may be related to what Cline, et al. (1960) termed "stereotype accuracy".

What the Moss, Byrne, Baskett and Sachs findings suggest is that subjects may not have been responding to a "stranger" at all, but to a position -- student.[1]

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[1] Five constructs which are basic to sociology are position, norm, role status and sanction. A position is a point in a group space. It is usually labelled in some way in a formal organization: "recruit in Company 389 at GLNTS"; "CRTCGLNTS"; "research associate at Minnesota Systems Research, Inc.". Sociologists do not concern themselves with people, only positions. Some positions are located in the space of an entire society and sometimes in groups which are themselves constructs created out of the sociological imagination. Age, sex, social class and ethnic group are such constructs.

Every position in the group space may be located in a hierarchy relative to the other positions. Its location on one dimension in this hierarchy is known as its status. Status, according to Shaw (1971, p. 241), is "the rank accorded the position by group members - the prestige of the position". It is common to confuse position and status. For instance, sometimes it is said that marriage involves a change in status. But husband and wife are positions. Unless husband or wife is higher or lower in the hierarchy than bachelor or spinster only a change of position has occured. Only if the new position is higher or lower than the old one has a change of status occured.

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This position was the same as that of the subject, and therefore of equal status. Another position which they also shared was that of research subject. In fact, the subjects may not only have been responding to a position but as incumbents in the same position. The evidence that there is a social desirability component to their responses also suggests that their responses were normative, the responses expected of incumbents in a position responding to others in the same position. Positional and normative similarity may be being measured, in addition to attitudinal similarity.

Some results reported by Byrne are not explainable from the perspective of his reinforcement theory (despite a valiant attempt in Byrne and Lamberth, 1971), specifically studies in which the stranger was Black or of upper socioeconomic class, or mentally ill. The need for consensual validation explains why someone with similar attitudes might come to be associated with reduction or increase of the effectance motive, but does not explain why a difference in position when attitudes are held constant should be associated with a change in that motive. Holding proportion of similar attitudes constant, white or normal subjects were

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A norm is a shared expectation about the behavior appropriate to a position in its relation to some other position together with sanctions for conformity and non-conformity. The expectations are position specific. They are symbolic group constructs. That is, they are abstracted from the reality of real life. Sociologists observe that different personalities simultaneously or sequentially occupying the same position display the same expectations of a specific other position. These expectations are neither personal, nor idiosyncratic. They are suprapersonal. They are not attributable to the persons but to their positions. A necessary part of the definition of a norm is that there must be a probability of a sanction for its observance or its violation. The sanction is not administered for merely personal reasons. Like position or status it is suprapersonal.

The difference between a norm and a role is the difference between the expectation itself and that expected. The statement "It is A's role to do thus and so" is the statement of a norm. Neither norms nor roles pertain exclusively to overt behavior. There are norms for some beliefs, attitudes, and values, as well as for behavior. Positions are expected to display beliefs, and are sanctioned if they display disbelief. Heresy trials are more sociological than psychological occurrences.

A group is a set of reciprocal positions, displaying status relations, and with concomitant norms and roles. Inherent in the concept of group is some connotation of a system, or of a whole greater than the sum of its parts. This is so because norms are always relational. They are expectations about positions related to other positions. Any set of two or more positions with reciprocal relations is a system because a change in the one always precipitates a change in the other.

attracted to hypothetical strangers who were Black or mentally ill less than to hypothetical strangers who were white or normal. They were attracted more to hypothetical strangers who were of a higher social class.

Byrne (1971) reported a series of studies which showed that occupational prestige did not effect attraction. These experiments varied both the proportion of similar attitudes and the occupation of the hypothetical stranger. On the basis of these experiments Byrne concluded that occupational status or prestige was not an alternate explanation of the attraction function. It had little effect on attraction.

Care should be taken not to overgeneralize these results.

In the first place, as already described, class, color and mental status do influence the attraction function. Byrne's negative findings pertain to occupational differences and prestige.

Secondly, there is evidence contrary to Bryne's findings. Loomis and Proctor (1950), Masling, Greer and Gilmore (1955), and Barnlund and Harlund (1963) found that attraction was associated with prestige.

The differences between these sets of findings may be due to failure by Byrne to appreciate fully the distinction between status and position as well as the import of reciprocal relations between positions. The Byrne experiments simultaneously varied two factors: stranger occupation and stranger prestige. Respondent occupation and prestige were not varied.

There is a difference between the prestige or status of an occupation and the occupation itself. To vary both simultaneously may confuse the effect.

More importantly, occupation is a much narrower grouping than social class or ethnicity. Social class and ethnic distinctions are important precisely because they cut across the entire society. An occupation, on the other hand, is primarily important to its focal positions. Byrne sought data on attraction of students toward positions which may not have been of high salience to students qua students. Loomis and Proctor, on the other hand, were asking county agents about other county agents and librarians about other librarians; and Masling, Greer and

Gilmore were asking the military about other members of the military. In these studies occupation was controlled and prestige varied. Not only this, but those to whom respondents were attracted were not only known to them, but relevant to their own position. They were positions with which they might be expected to interact.

Society is differentiated into certain social groupings. Characteristics such as income, wealth, and occupation are indicators on a probability basis of membership in such groupings. These groupings have varying breadths of relevance across a society in the sense that membership in such a grouping is evaluated positively or negatively by fewer or larger numbers of others, and involves expectancies about interpositional relations by fewer or larger numbers of others.

Attitudes are differentially relevant to positions. Conceivably a set of items might have no direct relevance to a position. On the other hand, an item which pertains to national health insurance may be more relevant to a physician than to a policeman. Even very general items may be differentially relevant. Precision, care, and responsibility are more important for a physician to possess than an artist. Whether considering the position of the other, or that of the respondent, these may effect the attraction function. If an item is not relevant to a person's position, then he is free to respond entirely on a personal basis. If the item is relevant to the person's position, then it is likely that the response reflects some blend of personal preference and positional expectations. In Byrne's Fifty-Six Item Attitude Scale there are fifteen questions (Byrne, 1971, 416ff.) which are especially relevant to students (1,3,6,7,8,13,14,16, 19,22,30,40,41,42,43). A student may be attracted to a non-student because he shares the student's opinions.

The fundamental problem is that there are two levels of response. "Attraction" is a psychological construct, an attempt to explain a phenomenon by postulating a process within the individual organism. The subject <u>feels</u> attracted to someone. A <u>drive</u> is reduced. But positions do not have drives, only people do. What every testing situation involves is a person not only responding to another person,

but a person responding in terms of his own position to another position.

This is the structural dimension of attraction. Social desirability is a facet of this demension. Structure determines what relationships are probable. Structure effects not only social desirability, but reinforcement contingencies. It influences acquaintance opportunity, rank and positional interest. ALL of these, by influencing the behavior of persons in positions, or shaping interpositional relations effect attraction.

Social Desirability

Basic standards and expectations of the socially desirable exist separately from any particular individual. They constitute a dimension of reality independent of his person and as real in their consequences as physical events. In many cases the common knowledge of norms for beliefs and attitudes associated with particular positions makes immediate consensual validation unnecessary. If each individual had to seek immediate consensual validation for all his beliefs about social reality tremendous psychic energy would be expended. More psychically economic means are necessary to preserve social order. Norms define social reality for positions.

The importance of the social desirability factor suggest that a subject may feel he should be attracted to another with similar beliefs, similar position, or both. If another believes in God, Motherhood and Country he should like him. The social desirability factor effects not only responses to attitude items themselves, but responses to attraction measures.

Sanctions

The second dimension is related to the sanctioning aspect of norms. As Scott (1971) noted, what may be construed as reinforcement at the individual psychological level, may be construed as sanction at the sociological level. The difference is that the sanction is a probability of reinforcement for all those persons incumbent in a certain position not just a particular individual. Not only are students expected to manifest certain attitudes but, having done so, they may expect other students to be attracted to them. Violation of either norm increases the probability of negative sanctioning. Conformity to the norm is not just a matter of social desirability in itself, but of sanctions. Translated into the concepts of learning theory, it is a function of operant conditioning.

If attraction is socially desirable, it may be because it is a socially economic sanction. Persons are rewarded for conformity by others being attracted to them and manifesting their attraction behaviorally. Liking and approval encourage conformity. Disliking and disapproval are effective sanctions against non-conformity. Hypothetically, if the subject holds certain attitudes because he thinks he "should", as well as because dissent is sanctioned, and one of the attitudes he holds is that he "should" like similars ("Birds of a feather flock together.") that is, if he is a conformist, then he will be attracted to another who is also a conformist. The conformist will attract him because the conformist may be expected to reward the subject's own conformity, and to act in accord with what is known by both to be socially desirable and positively sanctioned.

My argument to this point is as follows:

Attraction is an interpositional as well as an interpersonal phenomenon. It is interpositional because of the existence of a social desirability norm. This norm demands, that:

a) an incumbent in a position "should" be attracted to a same-sex peer.
b) a same-sex peer "should" display similarity to one's positional self in terms of beliefs, attitudes and values.

Sanctions are applied for conformity and deviation. The existence of the norm itself increases the probability that a person who behaves according to expectations will experience liking in return, a powerful reinforcement. Those who express non-conformity by disliking peers will be disliked by them, a powerful punishment. The point is that not only are peers expected to hold attitudes quite similar to each other but to like each other. This facilitates the forming and maintenance of relationships since it makes mutual response less problematic.

The structural theory of attraction makes three assumptions: 1) that normative expectations are position-specific; 2) that since positions differ in a) their distribution; b) the frequency of interpositional contact between any two different positions, the generality of expectations associated with any particular position will differ; and 3) that status differences will effect the mutuality or unilaterality of normative obligations.

Expectations about attitudes will be position specific - elicited by the explicit or implicit interpositional situation in which the subject finds himself. To specify that the hypothetical stranger is a same-sex peer of a student subject is to elicit those beliefs, attitudes and values which are relevant to the student position, that is, which students are expected to espouse. Suppose, however, the student were to be approached as a citizen of the local community in which he resides by a member of the city council, rather than an academic, and asked to indicate to what kind of hypothetical newcomers to the community he would be most attracted. Hypothetically he might respond to the initial attitude test differently, thus changing the basis of similarity to the hypothetical stranger.

Within any particular peer dyad such as student-student, or citizen-citizen the Byrne-Rhamey function will describe the attitude-attraction relation, but the alteration of the peer relation will modify the function. The primary modifiers of the function will be the change in status and breadth of relevance of the position of the same sex stranger. Subjects will be more attracted to positions of higher status than the equation predicts, and less attracted to positions of lower status.[2]

Since the generality of position-relevant attitudes differs, the response of the subject will differ depending on whether interpositional norms exist regarding his own position and the other position and, if they exist, how large the set of norms is. Certain positions in society are very general especially age, sex and ethnic positions. Other positions so seldom interact that no norms exist. What attitudes is a pussy willow plucker expected to have in common with an international banker?

Finally, where interpositional attraction is concerned, <u>mutual</u> attraction is hypothesized to be the norm between peers, but <u>unilateral</u> attraction between non-peers. Attraction will be normative from inferior to superior but not visa versa.

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[2] I am not referring to status as sometimes measured in small groups, i.e., the number of times a <u>person</u> was chosen. I am referring to the prestige of a <u>position</u> as measured, for instance, by an index like the Duncan index of socio-economic status. Few experiments have manipulated such positional differences systematically.

In summary: there are interpositional norms of attraction and similarity. These norms are 1) that an incumbent in a position "should" be attracted to a same-sex peer; and 2) that same-sex peer "should" share pretty much the same beliefs, attitudes and values.

Conformity to these norms is sanctioned by liking and non-conformity by disliking.

This is a circular argument - intentionally! I am describing a system, and no component is causally prior to any other component.

Incumbents in positions learn (by instruction) to discriminate those attitudes and that level of attraction which are expected. The position is a S_D for attitudes and attraction.

Social psychology has often limited itself to the study of informal relationships. Presumably this lessens the influence of extraneous variables on psychological states such as attraction. In everyday life many psychological and social psychological processes take place within the framework of formal organizations. The positions persons occupy within these organizations strongly influence a) the acquaintance opportunity structure, b) the rank of persons in relation to each other, c) their shared or opposing interests, and d) the etiquette of their relationship.

Acquaintance Opportunity

Work within an organization usually occurs at a particular location(s) and on a schedule. The intersection of time and space constitutes acquaintance opportunity. Acquaintance opportunity occurs because the actors have a socially determined relation to each other which initially is interpositional, not interpersonal. In the context of the Navy, acquaintance opportunity ranges from being stationed at the same base during the same period of time to being a member of the same small work group, or living next door (in base housing) or being racked next to another during the same time.

Acquaintance opportunity has a long term temporal dimension. It is possible for persons to share assignment to the same places during the same times. Those who

went through RT together may go through AT together. Later they may be assigned to the same ship together.

It is hypothesized that the greater any particular acquaintance opportunity in terms of both space and time (all other things being equal) the greater the likelihood of attraction, and the greater the number of acquaintance opportunities the greater the likelihood of attraction.

Theoretically, the association between acquaintance opportunity and attraction is due to the much greater chance of association between the object of attraction and some reinforcement, as well as because of the norm of attraction which is hypothesized to exist in all groups which share a common goal and which require group solidarity. The more positions are associated with acquaintance opportunity (all other things being equal) the more a norm of attraction is likely to exist.

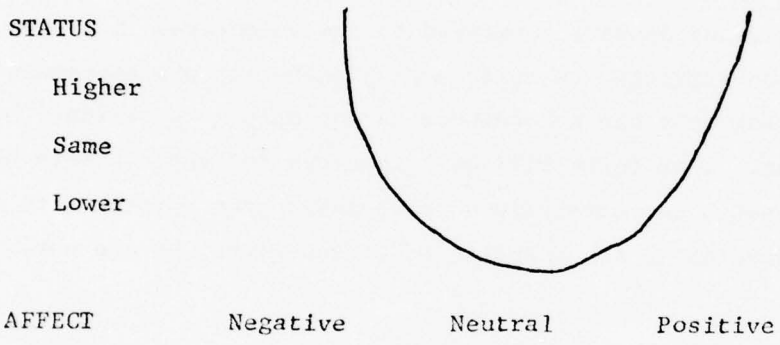
Rank and Etiquette

Formal organizations are characterized by hierarchical differentiation and authority relations. Relations between and within ranks or levels of authority are governed by rules of etiquette. These are well known and explicit in the military. Since the possession of authority implies the right to give or withhold specified benefits those higher in rank are in possession of rights to reward and punish. It is to be expected that a person associated with a higher rank would become associated with the rewards and punishments dispensed by virtue of his position. Those directly subject to his exercise of authority would be most affected. Rank, in other words, is important primarily to those directly affected by it, rather than as a general factor.

Those of equal rank relate in formal organizations on a quid pro quo basis. All other things being equal, a person will be attracted to another of equal rank to the extent he gives or withholds favors.

These factors will tend to produce an asymmetrical affect structure. Liking will be greater toward those of equal or higher rank and less toward those of equal or lower rank. The same asymmetrical structure would be expected to pertain to disliking. The hypothesized relation is displayed in Figure 2.2.

Figure 2.2


STATUS
Higher
Same
Lower
AFFECT
Negative
Neutral
Positive

Etiquette may be described as a set of norms for the content as well as style of interaction between two positions. In enacting the etiquette the individual is covertly judged not just by the correctness of his performance, but by his commitment to it. A grudging salute is different from an enthusiastic one.

While etiquette may function to depersonalize relations between those of unequal status at the same time it symbolizes inequality. Its expression may also constitute a reinforcer in the relations between positions. A person of higher rank will be attracted more to someone of lower rank who observes and appears committed to the etiquette. A person of lower rank will be attracted to someone of higher rank who expresses his understanding that the subordinate is not only a subordinate but a fellow human being. Thus there will be a tendency for superiors to be attracted to subordinates who carefully observe and appear committed to etiquette and of subordinates to be attracted to superiors who are not.

Shared and Opposing Interests

Relations in formal organizations may involve either zero or non-zero sum games between positions as well as persons. All may gain or lose from realizing or not realizing some goals. Some may gain while others lose from realizing or not realizing other goals. Generally, position incumbents will be attracted to each other to the extent that the structure of the organization is such that they will both gain or both lose in realizing or failing to realize certain goals. This attraction effect will be enhanced to the extent that overt cooperation between the incumbents is practiced. The more the structure of the organization is such that one incumbent must lose if the other gains, the less the attraction.

INTERACTION

Interaction is the behavioral manifestation of a relationship. It is also a communication process. The more the interaction the more likely it is that reinforcing information and information which leads to reinforcement will be exchanged. All other things being equal, the more such information is exchanged, the more likely attraction.

Interaction is also apt to be self-perpetuating. The more positive reinforcement is experienced through a particular relationship the more likely the persons in the relationship are to seek each other out -- a positive feedback effect occurs. Interaction which is positively reinforcing leads to more interaction. Interaction which is negatively reinforcing or punishing will decrease itself both in the sense of shorter durations of occurrences and lower frequencies of occurrence. Position incumbents will speak to each other only if they "have to". Frequency of interaction is an index of attraction to the extent it is not required between a pair of positions, that is, to the extent it is voluntary.

MULTIPLE POSITION INCUMBENCY

This exposition is entirely analytic since no subject is incumbent in only one position. While particular experimental conditions may call forth a response set in terms of a particular position, in real life it seems likely that relationships are multipositional. Thus, a same-sex dyad in a relationship may respond to each other in terms of work, sex, age, and ethnic expectations.

How does multiple position occupancy affect attraction? Does each position have equal weight, or does one position outweigh others? Is there some kind of ranking of position importance?

Hypothetically, I would suggest that there is a set of meta-norms governing position priority. There is considerable historical and anecdotal evidence for such norms. The general distinction between particularistic and universalistic orientations (see, for instance, Parsons, 1951) suggests that in some societies norms governing relations within extended families take precedence over others. Certain professions, for instance, priest, monastic and nun require giving up other positions. Warriors must place that position above others. At different times in history the norms of precedence for multiple position incumbents have varied.

One common social mechanism for regulating position precedence is scheduling. During "working hours" the work position takes precedence. Other positions may do so outside of working hours.

Another social mechanism to regulate positional precedence consists of rules for avoiding conflicts of interest. These rules state which position is to have precedence in case of a conflict of interest, as well as specifying ways in which such conflicts can be alleviated if not avoided.

Positional precedence is established by meta-norms, that is, by expectations that if a person occupies two positions, one position will take precedence under certain conditions and the other under other conditions. This suggests attraction is a function of a weighted average value, where that norm of attraction associated with the position which by meta-norm is expected to be given precedence in the situation is given greater weight, and attraction norms of other positions given lesser weight. The exact weights must be determined empirically.

SUMMARY

Position occupancy involves the incumbent in interpositional as well as interpersonal relations. Characteristics of positions, and norms of interpositional relations influence friendship development. These influences are always in terms of position pairs, that is, not only the position of the object of friendship, but the position of the subject must be taken into account.

Characteristics of positions which influence friendship include acquaintance opportunity, rank and cooperative or competitive interest. Norms include norms of social desirability, including attraction, and of etiquette. Normatively governed interpositional relations are controlled by positive and negative sanctions. The probability of sanction can be anticipated by a position incumbent. Shaping is unnecessary since the incumbent already possess information about the reinforcement schedule.

Friendship is the cooccurence of mutual attraction and relation. Mutual attraction is a function of mutually administered and experienced reinforcement. Such reinforcement may be derived from outcomes of mutual effort or from information. Information is reinforcing in different ways. Attitude similarity information is reinforcing because it reduces

the affectance motive. Some information is directly reinforcing--for instance words of praise which are information about actor's evaluation of alter.

Position necessarily involves the incumbent with other positions. Position leads to relationship. Relationship will vary as acquaintance opportunity of each interpositional pair varies, as their rank varies and as their interests are cooperative or competitive. All of these constitute a structure influencing the probability of positive or negative sanctions (reinforcement) and thus influence attraction. Similarly, interpositional etiquette, from one point of view, constitutes a schedule of reinforcements. Finally, social desirability norms influence not only expectations about beliefs and behavior, but also predispose incumbents to be attracted to one another.

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