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The Employment Interview as a Sociometric Selection Technique

GARY A. ADAMS TINA C. ELACQUA STEPHEN M. COLARELLI

ABSTRACT. Much of the research conducted on the employment interview suggests that it is time-consuming, expensive, and only modestly predictive of job performance. In spite of this, however, it remains one of the most widely used selection techniques. In this article, we argue that the employment interview continues to be used because it serves organizational functions other than the prediction of job performance. From this perspective, we review studies that suggest that the interview is used by organizations as a form of sociometric selection. We then describe how sociometric selection is functional to organizations, and we review studies that illustrate the positive effects organizations experience when using standard sociometric techniques. We suggest that many of these same benefits are realized when organizations use the employment interview as a method of sociometric selection. We also identify the potential disadvantages of sociometric selection and present suggestions for future research.

IN FEW AREAS OF INDUSTRIAL AND ORGANIZATIONAL (I/O) psychology is the research more at odds with the practice than it is in the area of the employment interview. For nearly 80 years, researchers have studied the employment interview, and reviewers of this research conclude that the interview is, at best, a modest predictor of job performance (Arvey & Campion, 1982; Harris, 1989; Ulrich & Trumbo, 1965). Still, the interview is the most widely used selection method (Bureau of National Affairs, 1988), and it is the method that has the strongest impact on hiring decisions (Friedman & Williams, 1982). Arvey and Campion call this discrepancy between research findings and organizational practice the "black hole" in personnel-selection research. Our purpose in this article is to reconcile this discrepancy by showing that the traditional interview is in fact a method of sociometric selection, and as such, it serves functions other than the prediction of job performance. We present our case in four sections. First, we define sociometric selection. Second, we review research on the interview that illustrates that the traditional interview is essentially a method of sociometric selection and that the interview serves a variety of functions. Third, we review studies on standard sociometric procedures that provide indirect evidence of the effects of sociometric selection. We conclude with a summary of the strengths and limitations of sociometric selection in organizations and suggest areas for future research.

Sociometric Selection

Sociometric selection is the selection of individuals into a group based on group members' affective responses toward the applicants. In sociometric selection, each group member is a test or assessment device, that is, group members make a personal assessment of an applicant based on attributes they consider important. They use their own personal calculus to determine an applicant's standing on attributes and to combine multiple attributes to form an overall judgment. The attributes and the importance assigned to them are likely a mixture of personal values and concerns and the values and concerns held in common by all or most members of the group. The definition of group most relevant to this article is Alderfer's (1977) because it provides a broad definition of groups in an organizational setting. He defines a human group as "a collection of individuals (1) who have significantly interdependent relations with each other, (2) who perceive themselves as a group by reliably distinguishing members from non-members, (3) whose group identity is recognized by non-members, (4) who, as group members acting alone or in concert, have significantly interdependent relations with other groups, and (5) whose roles in the group are therefore a function of expectations from themselves, other group members, and from non-group members" (p. 230).

Typically, group members will pool their judgments of applicants and make a group decision about which applicant or applicants to admit into the group. Thus, sociometric selection involves a complex process in which many individuals assess an individual for possible inclusion in a group. Assessments are likely to involve personal as well as group criteria, and then individual assessments are combined by group members in an attempt to satisfy both the self-interest of individual members and the needs of the group.

Conversely, psychometric selection typically involves selection of an individual for a position or job (Guion, 1976). An applicant's standing is measured on one or more attributes related to one or more objective tasks of the job. Ideally, these attributes are measured with a reliable and valid instrument, following a standardized procedure (Anastasi, 1988; Guion). Psychometric selection results in a number that reflects an applicant's standing on an attribute. Group or organization members then use this information—often combined with other information—to make a decision on each applicant. Decisions can be made on a clinical basis or with the aid of "mechanical" statistical techniques. Advocates of psychometric selection suggest that selection

decisions be made, as much as possible, on the basis of statistical information that is based on empirical relationships between predictors and criteria (see, e.g., Ree & Earles, 1992; Sawyer, 1966).

Sociometric Selection and the Traditional Employment Interview

Three features of the traditional interview give it a sociometric quality. First, the traditional interview is unstructured and open ended. As such, it evokes a wide range of behaviors from which interviewers make inferences about the applicant's values, personality, interests, and goals. Second, the traditional interview is a group phenomenon in which work group members assess an applicant's "fit" with themselves and the group. And third, judgments made in the traditional interview are largely based on implicit criteria. Implicit criteria are the qualities that each interviewer personally values in a new-hire and that are generally not discussed or acknowledged by the group.

Unstructured and open-ended. The traditional employment interview is an unstructured and open-ended question and answer session between a member of an organization and an applicant for a job in that organization. The unstructured and open-ended format of the traditional interview makes it a diffuse and, to some extent, a particularistic selection device; it also gives the applicant a good deal of control over his or her responses. By unstructured, we mean that the nature and number of the questions, the interpretation of the applicant's answers, and the means for forming a judge;ment about the applicant are at the discretion of the individual interviewer. By open-ended, we mean that applicants can answer questions in any way they choose; that is, they are not normally given alternatives from which to choose their answer.

Because of the interview's unstructured and open-ended format, the interviewer can solicit information that helps in estimating, with varying degrees of accuracy, a variety of applicant characteristics and skills, such as social skills, interpersonal communication skills, socioeconomic status, personal goals, values, marital and family status, intelligence, motivation to work, deference to authority, and ability to conform to expectations for the position.

A group phenomenon. Although most researchers on the employment interview have viewed it on the level of the individual or dyad, the traditional employment interview typically operates as a group-level phenomenon, that is, a phenomenon that involves two or more people with some sense of common purpose and awareness of belonging to a common social unit. In most organizations, job applicants are interviewed by two or more employees (Colarelli, 1992; Friedman & Williams, 1982).

The interviewing process for faculty jobs is a good example of the group nature of the employment interview (York & Cranny, 1989). A search committee composed of several faculty members with a major stake in the position

will first evaluate the applicants' vitae and cover letters to determine which applicants' skills, experience, and interests are compatible with the requirements of the position. They then develop a "short list," and the top candidates on the short list are invited for an interview. The primary purpose of the interview process is not to assess skills and abilities—most of this has been done by reviewing vitae—but to find out whether the candidates' values and personalities fit with the culture of the work group and department.

The usual faculty interview process begins with a series of one-on-one interviews with the faculty members in the work unit with whom the applicant would be working. In a psychology department, for example, work units might be groups of social, experimental, industrial/organizational, biological, or clinical faculty. An applicant for a clinical position would, for example, be interviewed first by faculty members in the clinical group. The applicant might then be interviewed by those at the top of the department hierarchy, such as unit heads, senior professors, and the chairperson. He or she might also meet with a university official, such as a dean. Often several faculty members also take the applicant to breakfast and dinner, during which they observe and evaluate the applicant in a more casual setting. In addition, a faculty candidate would meet with small groups of graduate or undergraduate students. At some point, the candidate will give a presentation of a current research project to members of the department and to students. Although this procedure provides an opportunity to assess the candidate's presentation skills, it also provides another forum to assess the compatibility of the candidate's personality and values with the department's culture. Finally, the department holds an evening cocktail party or afternoon sherry hour when all members of the department informally interact with (and evaluate) the candidate. After a candidate departs, faculty members and students share opinions about him or her. When all the finalists have been interviewed, the faculty members are likely to hold several formal meetings to discuss and evaluate the candidate. The search committee or others in the department rank the candidates, and then the top candidate receives a job offer.

Implicit criteria. Some criteria or standards of acceptability by which interviewers judge job candidates are shared implicit criteria or private implicit criteria. Shared implicit criteria are criteria that most group members know and accept but are not publicly acknowledged or discussed. Private implicit criteria are criteria that are personal and often unique to individual group members; they are also not publicly acknowledged or discussed. One reason why criteria remain implicit is because it helps the group manage in-group conflict and protects the group from potentially hostile forces in its environment. The literature on organizational culture also points out that cultural ideologies tend to become implicit over time (Trice & Beyer, 1993). As ideologies and values

continue to help organizations adapt to internal problems of integration and external problems of adaptation, they become taken for granted. Trice and Beyer suggest that "with continuing expression and use, ideologies come to be viewed as nondebatable ways of understanding ... events and as natural, undeniable guides for behavior" (p. 38). Perhaps, this is what happens as certain shared interview criteria become implicit.

Personal criteria of individual groups members—private implicit criteria tend to remain undiscussed because they would reveal self-interests and differences among group members and because such revelations might escalate into disruptive group conflict. Although private criteria tend to enhance personal interests, they may be detrimental to the group's interests and perhaps the personal interests of other group members. Thus, group members are likely to avoid discussion of private implicit criteria and discuss openly only those criteria that reflect group values.

Groups tend to avoid open discussion of shared implicit criteria because such discussions could increase the group's vulnerability to potentially hostile forces from its environment. Because a group must maintain working relationships with other groups within the same organization, it is unlikely that members would openly discuss criteria that are related to the group's subculture and are also at odds with the subcultures of other groups. A group is likely to discuss criteria that are generally valued by other groups and to avoid discussion of criteria that reflect the unique values or interests of one particular subgroup. Similarly, groups are unlikely to discuss openly criteria that are unique to the organization's culture, particularly criteria that reflect values that may be at odds with societal values. Therefore, the group will only make criteria explicit that are in harmony with larger social values, while those that conflict with larger social values will remain implicit. For example, an organization may value particular religious affiliations and principles and may therefore use religious affiliation as a criterion in hiring managers. However, because American culture and law generally oppose discrimination in employment based on religion, religious affiliation will remain an implicit, although very real, criterion in that organization. Making such a criterion explicit could create hostility toward the organization. Thus, only a criterion that is compatible with American social values is likely to be explicit.

The Employment Interview

Although the traditional interview typically functions as a method of sociometric selection, most of the research on the interview is based on the assumptions that the relevant units of analysis are individuals and jobs and that the purpose of the interview is to improve the fit between persons and jobs by assessing task-related knowledge, skills, and abilities. Because of these assumptions, researchers have tended to interpret the findings of studies on the interview from individually focused and mechanistic perspectives. We will argue, however, that results of many studies on the interview support the notions that the interview is in fact a form of sociometric selection and that sociometric selection is functional to organizational effectiveness.

Interview Mechanics and Psychometric "Improvements"

Most research on the employment interview falls into four categories: (a) the validity of the interview, (b) ways to improve the interview, (c) the content of the interview, and (d) the interview process and decision making. Research examining the validity of the interview has focused almost exclusively on its ability to predict job performance. Because much of this research has shown the interview to be only modestly predictive of job performance, work on improving the interview has focused on increasing its power to predict performance. Researchers have suggested that the mechanics of the interview become more structured and standardized so that the interview resembles a standardized psychometric test (Campion, Pursell, & Brown, 1988; Janz, Hellervick, & Gilmore, 1986; Latham, Saari, Pursell, & Campion, 1980). Generally, practitioners ignore these suggestions and use the unstructured format.

Interview Content and Process

Research examining the interview content, decision making, and process, however, provides insight into what interviewers actually base their hiring recommendations on. This research suggests that often interviewers do not base their hiring recommendations on the objective knowledge, skills, and abilities required to perform a specific job; rather, they base them on other applicant characteristics (Orphen, 1984; Raza & Carpenter, 1987). Studies examining the content of employment interviews have found that interviewers tend to ask more questions about nonacademic and extracurricular activities than about specific job skills (Keenan & Wedderburn, 1980; Taylor & Sniezek, 1984). They also tend to focus on attitudes, communication abilities, and interpersonal skills (Graves & Karren, 1992; Kinicki, Lockwood, Hom, & Griffeth, 1990).

The interview is a "dynamic process of social interaction and interpersonal judgment" (Binning, Goldstein, Garcia, & Scattaragia, 1988, p. 30). This process includes pre-interview impressions, the actual face-to-face interview, and post-interview evaluations. Much of the information that interviewers use in judging applicants comes from cues related to demographic information (Avolio & Barrett, 1987; Graves & Powell, 1988; McDonald & Hakel, 1985), personality (Jackson, Peacock, & Smith, 1980; Paunonen, Jackson, & Oberman, 1987), and attitude similarity (Keenan, 1977; Orphen, 1984). Our

reading of this research on interview content and interviewer decision making suggests that the way the interview is actually used is akin to sociometric selection. It tends to be a group phenomenon in which judgments are made about an applicant's personality, values, and likelihood of fitting in with the group and organizational culture.

A Sociometric Function of the Interview

People and organizations possess the capacity to engage in a wide variety of behaviors. In response to demands from their physical and social environments, they consciously and unconsciously select those behaviors that are advantageous in a particular situation. If the behavior is functional, in the sense that it allows the demand in the environment to be met, it is retained for use as the need arises. This process of socio-cultural evolution provides the basis for an evolutionary perspective in industrial and organizational psychology (Weick, 1979). If we examine how personnel technologies come to be used by organizations, we can see that the process resembles the variation, selection, and retention process characteristic of the socio-cultural evolutionary process. A variety of personnel technologies exist, and the organization becomes exposed to these technologies through a variety of means (academic and practitioner journals, fads, new employees, professional conferences). The organization may then use some of these technologies. Over time and with information from a variety of feedback mechanisms (trial and error, social research), the effects of the technology are then either formally or informally assessed and the technologies that were useful to the organization are retained. In short, organizations use the technologies they do because these serve some function that is important to them. From this perspective, specific technologies can be examined in terms of the function they perform.

We believe that the widespread use of the interview evolved over time because it was, and is, functional for assessing an applicant's "fit" with a work group and organization. Because our focus is on the interview as a sociometric selection device, we are emphasizing its function in assessing an applicant's fit with a work group and organization. We recognize that the interview serves other functions.

Although individual performance of specific job-related tasks is important for organizational survival, a variety of other organizational behaviors related to an individual's ability to work well with and fit into a larger group are also important (Borman & Motowidlo, 1993). Currently, a variety of personnel technologies can be used to assess an applicant's ability to perform a specific job, such as intelligence and work-sample tests (Hunter & Hunter, 1984; Reilly & Chao, 1982). However, the employment interview is one of the few selection techniques available that provides a means of assessing an applicant's fit. It does this by allowing group members to collect and evaluate information regarding the applicant's values, goals, attitudes, personality, and communication styles.

In order for organizations and work groups within organizations to remain viable over time, it is necessary for members to have values and goals that are congruent with those of the organization and work group. When members share a common set of values and work toward common goals, performance and productivity are likely to be enhanced. Additionally, when group members have similar attitudes, personalities, and communication styles, the potential for interpersonal conflict is reduced. Individuals in groups also need to have common expectations about their roles and behaviors, and the roles and behaviors of other group members. Shared expectations are necessary for coordination among group members and for group survival (Sampson, 1963).

Given these considerations, a key issue in selection is whether the applicant is compatible with the members in the group and the organization (Colarelli, 1992; Colarelli & Boos, 1992). Researchers have recommended that job applicants be assessed in terms of their fit with the organization's strategies, culture, norms, and values (Fombrun, Tichy, & Devanna, 1984; Olian & Rynes, 1984). Rynes and Gerhart (1990) suggest that interpersonal skills, goal orientation, and physical attractiveness are a few criteria used in assessing fit. It is not surprising that these are some of the same criteria on which interviewers base their hiring recommendations.

Interviewers making sociometric decisions use a variety of cues to assess the similarity between themselves and the interviewee. Griffitt and Jackson (1970) reported that when interviewers perceived the interviewee to have similar attitudes, they made significantly more decisions to hire. An applicant's nonverbal behaviors can provide the interviewer with useful information about the applicant's social skills (Edinger & Patterson, 1983; Gifford, Ng, & Wilkinson, 1985; Schlenker, 1980). The level of assertiveness, dependability, confidence, and responsibility can also be assessed in an employment interview (Amalfitano & Kalt, 1977). Each of these provides information that helps the interviewer arrive at an assessment regarding an applicant's fit.

Sociometry and the Use of Sociometric Techniques to Improve Group Functioning

Sociometry is the measurable study of structured human dynamics, including the social, cultural, and psychological characteristics, of human groups (Moreno, 1956). Sociometry seeks to understand the interactions and dynamics of group processes and apply that knowledge to the betterment of the work group, the organization, and society. In the following section, we review

empirical studies on the effects of standard sociometric techniques. Our purpose in doing this is to provide indirect evidence about the possible effects of sociometric selection with the employment interview. Research in the field of sociometry has described two ways in which sociometric techniques have been used to improve group functioning: (a) to study the social, psychological, and cultural dynamics of existing groups in order to improve their functioning, and (b) to form de novo or new groups.

Diagnosing and Restructuring Existing Groups

Speroff (1956) described one example of how the sociometric status of a group can be diagnosed. Each member in the group indicated in writing or orally the person he or she considered to be the best on a certain number of criteria (e.g., the most efficient worker, or the most enjoyable worker). The members who were chosen the greatest number of times were considered the stars of the group. The members who were never chosen were considered isolates. A graphic quantitative representation of group members' choices was summarized in a sociogram. This schema provided information about: (a) the number and size of subgroups existing within the group, (b) the level of group cohesiveness, (c) a comparison of one's personal observations with the empirical, objective indicators, (d) the potential leaders of the group, and (e) whether restructuring or regrouping is necessary (Speroff, 1956). We can conclude that a summary, called a sociogram, of the group's interactions helps one to examine how the group is operating and determine what steps need to be taken to improve the functioning of the group.

In an early sociometric study, Van Zelst (1951) assessed the relationship between sociometric ratings of interpersonal desirability and job satisfaction in two groups of carpenters and two groups of bricklayers. Individuals in these groups were familiar with each other's personalities and levels of skill. He found that the higher the level of interpersonal desirability among workers, the greater the job satisfaction. In addition, those individuals who received higher ratings of interpersonal desirability expressed a greater degree of job security, perceived the work environment to be good, and believed their coworkers to be friendly. These workers also believed the organization was interested in their welfare, that good communication with management existed, and that management had good intentions. Later, Van Zelst (1952) evaluated these groups and predicted that sociometric restructuring would produce an increase in job satisfaction and a decrease in turnover. The experimental group consisted of a group of 20 carpenters and 20 bricklayers. The control group was made up of 18 carpenters and 16 bricklayers. Both groups worked on building the same style of house. The experimental group, which was restructured through the use of sociometry, scored significantly higher on job satisfaction and had significantly lower turnover. In addition, labor and material costs were also significantly lower for the group formed by using sociometry.

In organizations, there exists both a formal social structure with official roles for the members and a sociometric structure that includes how the members get along with one another. Mendelson (1989) believes that the more disagreement there is between the official social structure of an organization and the sociometric structure, the more social conflict and tension will arise. Knowledge of what each of these structures is, and recognition of the differences and similarities between them can lead one to take steps to avert conflict and help the organization function smoothly.

Forming De Novo Groups

Research supports the notion that when new groups are formed from existing groups through the use of sociometric techniques, the new groups show high levels of satisfaction, cohesion, communication, and coordination (Secord & Backman, 1964). The United States military conducted the early research examining the use of sociometry to form new groups. Following World War II and the Korean conflict, the army began searching for better ways to process soldiers through the army's replacement system. Chesler, Van Steenburg, and Brueckel (1953) compared two approaches to processing replacements on morale and combat efficiency. The old method of replacement treated the men as individuals. The men were randomly chosen and sent to overseas assignments. The new method replaced the men in sociometrically assembled four-man teams. The four members of each team had been trained together and knew each other well. The results of this study indicated that the teams assembled by using sociometric techniques had higher morale and probably higher combat efficiency than those who were assigned individually (Chesler, Van Steenburg, & Brueckel, 1953).

Sociometric techniques have also been used with flying cadets (Zeleny, 1960). In this study, Zeleny studied 48 cadet-observers in an advanced Army Air Force flying school. The flying cadets completed a sociometric test and rated each of the cadets first on whether or not they would consider flying with them or felt indifferent to the cadet in question, and then they rated their choices on the most and least preferred flying partner. This sociometric technique was used to identify leaders and isolates among flying cadets, to assess the status of cadets, and to identify those who would be most compatible with each other. Flying partners were then assigned on the basis of this information. Sociometric techniques proved to be a more useful selection device than the random selection method the flying cadets used previously (Zeleny, 1960).

In a more recent study, Colarelli and Boos (1992) compared sociometric and ability-based selection on multiple outcomes—communication, coordina-

tion, peer rating, group cohesion, and job satisfaction. Subjects in the sociometric condition chose those whom they wanted to have in their work group, whereas the subjects in the ability-based condition were assigned because of their capabilities to perform a task. The work groups assembled by using a sociometric selection process had higher levels of communication, coordination, peer ratings, group cohesion, and job satisfaction than those using an ability-based selection process (Colarelli & Boos, 1992).

The use of sociometric techniques to diagnose, restructure, and form new groups can benefit organizations, and it is likely that many of these same benefits are realized when sociometric techniques are used to select individuals into existing groups. The sociometric techniques used to diagnose, restructure, and form new groups, however, rely on information that is normally available from the members of the group. When organizations are selecting individuals for existing groups, however, this type of information is not usually available to the group and must be collected and evaluated in order to assess the applicant. The traditional employment interview is the primary means by which group members collect this type of information and engage in sociometric selection. The interview provides a variety of information about the applicant, ranging from demographic characteristics to communication styles and social skills. The unstructured nature of the employment interview allows the interviewer to probe for information on which to assess the applicant's personal values, attitudes, and goals. Interviewers use this information to determine if the applicant will fit with themselves and the group. Both the type of decision to be made, and the information on which it is based, are similar to those found in other sociometric techniques. Thus, many of the benefits that occur when using standard sociometric techniques are likely to be achieved when using the sociometric selection process.

Discussion

Most of the research on the employment interview suggests that it is a poor predictor of performance, is time consuming, and is expensive; however, it is widely used in organizations today to make hiring decisions. We have argued that the interview is used so widely because it serves other functions that have not been addressed in the current literature (Dreher & Muarer, 1989). Perhaps the most important function is the sociometric selection of applicants.

Organizations have available to them a number of human-resource technologies that allow them to identify individuals who posses knowledge, skills, and abilities necessary to perform a given job. These technologies allow the organization to identify those individuals who are likely to be the best performers among the candidates in the applicant pool. However, individual job performance is just one dimension of human activity that is necessary for

organizational effectiveness. Other dimensions of human activity related to organizational effectiveness include being committed to the organization, functioning cooperatively in the work group, and fitting into the organization's culture. Central to these activities are the social, psychological, and cultural characteristics of the work group and organization. By definition (Moreno, 1956), these are related to the sociometric functioning of the work group and organization.

Research within the field of sociometry suggests advantages to using sociometric methods to assess existing groups and to form new groups. Some of these advantages include increased job satisfaction and communication as well as decreased turnover and labor costs. Given the importance of these issues in the competitive environment in which organizations find themselves today, it is likely that organizations would prefer to select those individuals who meet sociometric criteria as well as job-specific knowledge and skills.

Few technologies exist to assess applicants on these sociometric criteria. Research regarding interview content and interviewer decision making suggests that one such technology is the unstructured employment interview. Although it may have initially been used to assess job-specific knowledge, skills, and abilities, the interview appears to have evolved into a sociometric selection technique. That is, organizations have adapted it to meet this specific function. Evidence for this is found not only in the fact that the employment interview continues to be used but also in the research findings that indicate that interviewers focus their attention and base their decisions on information regarding values, attitudes, interpersonal skills, and "likability."

Although the employment interview can allow the organization to experience the benefits associated with sociometric selection, this type of selection can also be dysfunctional. For instance, when sociometric selection has the effect of denying members of protected groups organizational membership, the courts may sanction the organization. Sociometric selection can also become dysfunctional when it leads to a lack of diversity within the organization. A lack of diversity within the organization can be especially problematic when the environment the organization operates in changes rapidly. When diversity is limited, the organization may not have the necessary talents needed to address new demands in the environment. Sociometric selection can also be problematic when organizational decision making is influenced by pressures for social conformity leading to the phenomena known as "groupthink" (Janis, 1972). We suggest that practitioners be aware of the potential pitfalls associated with sociometric selection and take active steps to avoid them.

Before we propose suggestions for future research, we must first acknowledge that, unfortunately, little research has been conducted regarding the sociometric selection of applicants into existing groups. Therefore, basic research that examines the interview as a sociometric selection technique is

needed. This research would do well to focus on identifying how interviewers actually arrive at sociometric assessments of applicants, identifying appropriate organizational criteria on which to evaluate interviewer decisions, and establishing the theoretical and empirical linkages between the two. This research could follow the same logic as the validation of other selection techniques described by Binning and Barrett (1989). This would involve establishing the relationship between sociometric constructs identified in the interview and performance constructs identified in the work setting.

Researchers need to investigate what organizations and groups actually do when they interview job applicants. How widespread, for example, is sociometric selection and under what conditions is it most likely to occur? Finally, historical studies that examine the evolution and functions of selection methods over time will increase our understanding of the adaptive and ecological nature of human resource technologies.

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A Reexamination of the Tele Effect

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ABSTRACT. Sometimes our awareness of it is distinct and sometimes it is barely perceptible, but we often find that we "hit it off" or "are in synch" with some people and not with others, and that however we feel about them, they in turn often feel the same way about us. This mutuality of feeling with another person is what Moreno called "the tele effect." The variable of tele has been observed by social scientists since the 1930s, and yet what actually happens when tele is experienced is not well understood. In fact it might be said that it is often misunderstood, possibly because of the metaphorical language that has been used to describe it, possibly because empathy is difficult to conceptualize, and possibly because empirical research in interpersonal perception and attraction has developed only in recent years. In this article, I examine some of the relevant social and behavioral science literature in communication theory, interpersonal perception, interpersonal attraction, and empathy in order to advance some possible explanations for the tele-effect phenomenon and to formulate a reconceptualization of the construct.

WITH THE POSSIBLE EXCEPTION OF ROLE, one would find it difficult to identify a concept more central and more basic to Moreno's psychodrama, sociometry, and group psychotherapy than that of tele. And yet it is also difficult to find a presumably scientific term more cloaked in mysticism, mystery, and misunderstanding. In the original Who Shall Survive?, Moreno (1934) included the word in a glossary of 15 terms essential to an understanding of his work in sociometry. In that volume, he defined it as "a feeling which is projected into the distance; the simplest unit of feeling transmitted from one individual towards another" (p. 432). In the discussion of the term, however, he went well beyond that (pp. 158–164). It is not clear whether he was using magnetism as a metaphor/illustration or whether he believed that there was an actual magnetism between people, but he talked of "the attractive power of animal bodies," "a magnetic and mysterious fluid which passes from one person to another," a "certain sensitivity," "affinity," a "common

soul," a "social physiology," and "reciprocating physiological organs which interact with each other." He said that there were innumerable varieties of attractions and repulsions between individuals that needed a common denominator, which had a socio-physiological basis. Because feelings were directed "from one individual to another," they were "projected into the distance." For that reason, he chose the Greek word, *tele*, which means "at a distance," to explain the phenomenon and represent that common denominator.

By the time the second version of Who Shall Survive? was published (1953), Moreno had expanded the place of tele in sociometry to the point that he explained it at length in 12 different places with further elaborations in another 25 subsections in the book. He still defined it the same way as in the first version of the book as a "feeling transmitted" from one individual to another (p. 314). He spoke of tele as "two-way empathy," with transference as its psychopathological variation. Tele explained the process that attracts individuals to one another or that repels them; it was also the flow of feeling of which the social atom and networks were apparently composed. Prior to the 1930s, when psychology was mainly individual psychology, it was generally thought that feelings emerged in the individual exclusively and were purely individual projections completely unrelated to what the other person might be experiencing. Moreno's observation was that one-way projected feelings did not make sense sociometrically. Rather, he proposed that they should be conceived of as two-way or multiple structures. At least theoretically, there was a potential for a complementarity of feelings. Moreover, sociometric tests could demonstrate that the feelings that people had for others were reciprocated well beyond randomness. In essence, we cannot observe tele directly, but we know that it is there. The sociometric test is deceptively simple, but it was a major advance in social psychology because it was a way of operationalizing tele and of demonstrating its existence (Lindzey & Byrne, 1968). Moreno explained that social atoms were composed of tele structures, and these social atoms were parts of still larger networks that were parts of communities that were in turn parts of society itself. The whole social fabric of society, according to Moreno, was an attraction-rejection system, the threads of which were composed of tele.

Metaphysics and Misunderstandings

If tele is as central to the formation of society as Moreno believed it to be, then what actually happens between two people so that the tele-effect experience results? Is it really conceivable that there is an actual "magnetism" between two people as Moreno suggested, or that feelings are "projected" or "transmitted" at a distance from one to the other and that transmission results in our mutual attractions or our affinity for one another? Given our present

understanding of social science, that does not seem likely. Moreno's explanation of the phenomenon now seems more like a metaphysical than a scientific one. How do we explain things that we know to be true and yet cannot see? Sometimes, it appears, we theorize, we create constructs, and sometimes the construct withstands scrutiny and sometimes it does not. In this case, it does not. All sorts of things might be going on when two people perceive one another and interact and have mutual feelings, but they do not include either magnetism or transmissions at a distance. And yet, possibly because the tele effect is such a curious and marvelous phenomenon, one can find people who persist in believing that tele is some form of Morenean magic, and that there are actually some mysterious, inexplicable, invisible electrical currents that are circulating in the air between people that result in shared feelings.

Moreover, if Moreno's conceptualization of tele does not hold up, then the definition that has come forward to us unchanged since 1934 does not hold up either and in the end will have to be revised to incorporate a newer and different understanding of what occurs. Whereas that idea might be disturbing to some people who regard *Who Shall Survive?* as a sort of inspired text, and hence flawless and unchangeable, I doubt that it would bother Moreno at all. In answer to a specific question about that, Moreno once told me that because of entropy, all closed systems would eventually self-destruct, and that he saw psychodrama and sociometry as an open system that would and should change as different information became available and as our understandings changed. To treat Moreno's work as a closed system, then, would be a disservice to him; to regard it as something to be improved upon would be a courtesy.

One reason that the tele experience seems magical is that we quite often have these feelings of attraction or rejection for people we know very little about, and another reason is that sometimes those responses we have seem to take so little time to form. How something like this happens is not easily explained or understood. If it is not magic and it is not magnetism or "reciprocating physiological organs" or transmitted feelings, then what is it? In this article, I shall advance some possible explanations based on the literature in the social and behavioral sciences that bear on this question.

Purposeful Perception

Let us begin with a scene. There is a room with a single person standing in it. Another person enters the room, and the two persons view one another. They have not spoken, but they are already interacting. We need not speak to interact. What might be going on at that moment of meeting and in the moments that immediately follow? Any perception is the result of a highly complicated weighing and judging process. As a person perceives anything,

the mind of that person goes through a whole host of factors and cues based on what the stimuli are that are available to be perceived. As the stimuli become more complicated, the factors that must be integrated may run into the thousands based on the past experience of the perceiver. Instead of sorting through the different cues and separating them, what a person normally does is merge them into some kind of total impression. That is, all of those factors and cues are integrated in the mind of the perceiver into a single value judgment.

The process of reaching a value judgment is by no means a random or chaotic procedure. It is a purposeful activity. What might that purpose be? Sometimes the purpose is highly specific, such as meeting a stranger, joining a group, attending a meeting, or seeing an old friend. But there are more basic purposes too, which might be described as something having to do with human nature. Psychologists in the area of sensation and perception (Combs & Snygg, 1959) say that when we perceive anything, what we are trying to do is make sense out of the experience, giving meaning to our surroundings, including other people. Underlying these ideas is the assumption from a number of schools of psychology that all human behavior, including our perceptions, grows out of an attempt to create, maintain, and enhance a sense of self. A person responds to the world as he or she sees it. An individual does what she believes is best for herself in the situation in which she finds herself. How she sees herself influences her behavior including her perceptions of what is around her. If she sees the environment as enhancing and facilitating, her behavior will be positive and responsive. If she sees it as dangerous and threatening, her behavior will be defensive and withdrawn. If she sees herself as capable and wanted and effective, she may be willing to risk herself in an encounter with another person and may see that person as benign or even friendly. If she sees herself as incapable, unwanted, or ineffective, she may see that other person as intimidating or dangerous. How we view the other person naturally involves how that person appears to us, but how that person appears to us also involves how we see ourselves. How we perceive something has a lot to do with what we carry along with us to perceive it with and what our expectations are, based on our past experience.

Because perception is a purposeful activity, that purpose may even include guesses about the purposes of the other person, such as whether the person is a rival, whether the person will want to control, whether the person will be helpful, whether the person wants something. An extremely important part of that other person's purposes has been called meta and meta-meta level perspectives (Laing, Philipson, & Lee, 1966). This work is based on psychiatrist R. D. Laing's clinical experience with problem relationships and with misperceptions. It describes direct perceptions (How I see you), meta-perceptions (How I see you seeing me), and meta-meta perceptions (How I see you see-

ing me see you). An important part of that research in this context is that when we perceive another person, in forming our impression, we might even be taking into account how that person might be perceiving us, or even how they might perceive us perceiving them when we form our total impression.

Finally, what we know about this perception process is that it takes just seconds or, in some cases, fractions of a second and that it is largely unconscious. Although we are by no means limited to visual perceptions and we take other senses into account when we are integrating factors and cues, we are primates in the animal kingdom, and when primates perceive, they are primarily dependent on what they see. Seeing does not take much time, and that is mainly what we are doing when we are sizing up the other individual and forming a total impression. More frequently than not, we are largely unaware of the process while it is going on. That is, when we are perceiving something, we are not consciously aware that we are doing it. There is no small voice in our heads that is self-conscious or self-aware of the process and that is telling us what we are doing while it is going on. In fact, if there were, it would slow down and further complicate an already complicated process.

If we can return to that room with the two people standing in it and viewing each other, we can see that a variety of things are occurring that might influence how they might feel about one another. We can say that interpersonal perception is a complicated weighing and judging process that, at least initially for humans, is mainly visual; that in responding to the cues and factors we gain from the stimuli that are available, we integrate them to form a total impression; that it is a purposeful activity that may take into account one's own self-concept, one's own past experiences, and the purposes of the other; that it is largely unconscious; and that it does not take much time. Let us say now that the two persons in the room begin to talk with one another and find things out that begin to reduce their ambiguity about one another. What might then be exchanged between the two people that could result in their having mutually positive or negative feelings about each other? There is a substantial body of research that forms the answer to this question, which I will attempt to summarize.

Interactions and Attractions

Whom do we like and dislike, and who likes or dislikes us, and what would explain it? Instead of a single answer to these questions, there are a number of answers because a number of variables can be used to account for interpersonal attraction. Some of them are much more important than others, but most of them contribute in some way to what we find attractive in others and they in us. One of those variables is physical attractiveness. Usually, when we say that someone is attractive, that is what we are talking about. It is true that our

society makes all sorts of disclaimers about the importance of physical attractiveness in our relations with others. We are told not to judge a book by its cover, that beauty is only skin deep, that beauty is as beauty does, and that beauty is in the eye of the beholder. But beauty is not only in the eye of the beholder; there are culture-wide, generally accepted standards for who is attractive and who is not that virtually everyone is acquainted with and reminded of constantly through the media. Moreover, the existence in our society of a multibillion dollar cosmetics industry tells us that someone is trying to look good according to social standards. Add to this the time, attention, and money spent on exercise equipment, dieting, grooming, fashion, cosmetic surgery, and adornments and we may get the impression that physical appearance is all we care about. The relation between physical appearance and our perception of people is a strong one. We simply do not perceive attractive people the same way we perceive unattractive ones, and we do not treat them the same way. We associate positive personality traits with attractive people. Attractive people are thought to be more sensitive, popular, kind, interesting, strong, poised, modest, sociable, outgoing and exciting than unattractive ones. Attractive people are expected to hold better jobs, have more successful marriages, and lead happier and more fulfilling lives (Berscheid & Walster, 1972). Physical attractiveness is a critical standard by which we form our first impressions and our expectations of others. Consequently, it matters most at the beginning of a relationship when we have very little else to go on.

Proximity matters in the formation of our relations with others. All other things being equal, the closer we are geographically to another person, the more highly probable it is that we will like one another. There is an irresistible logic to this idea. We cannot interact with those we do not come in contact with, and we cannot form relationships with those we do not interact with. We can come in contact with and interact more easily with people we are closer to geographically. If we are closer physically, the probability is greater that we will interact and have a relationship. People who are more centrally located in a neighborhood or in a building will have more opportunities for relations with others than people who are more distant or peripheral simply because of where they are situated. Associated with the variable of location is the likelihood that people who come from the same geographical space will also share a similar background and will have something in common or be in some way similar.

The influence of "having something in common," or what is called perceived similarity, is without doubt the most powerful and the most experimentally predictable variable in interpersonal attraction, but it is made up of a number of smaller categories that vary in their importance. A couple of qualifications go along with this particular explanation. One is that perceived similarity may not be actual similarity; because people believe themselves to be

similar does not guarantee that they are. Another is that similarity is relative, so one has to take into account that a person may or may not be similar based on some kind of internal comparison standard. Persons who normally would have nothing to do with one another might become friendly if they find themselves together in a crowd of strangers or in a foreign country, that is, among people who are seen as even more dissimilar than they are.

In spite of the ancient adage that tells us that opposites attract, the reverse is actually true: We are attracted to people who are like us. If someone is like you, how could they not be acceptable? This includes physical similarity and similarity of personality. Generally, we choose those of the same race or ethnic group, those who are physically similar to us, because that is what we are used to, and we tend not to prefer physical extremes who appear very different from us. People who have been given batteries of personality tests and who have tested out as alike in personality tend to prefer one another. This variable also includes similarity of stress and anxiety. People who have shared ordeals, strife, or tribulations feel a common bond and an attachment to each other, perhaps because only those people know and understand what one has been through and has experienced.

The most reliable of all of the predictors of attraction is similarity of attitudes, beliefs, and values. Attitudes are an available and measurable variable and have been much researched during the past 60 years. Time after time, attitude scales have been compared with measures of interpersonal attraction, and time after time, they have been shown to covary significantly. Similar attitudes go with increased liking. Fritz Heider (1958; Benesh-Weiner, 1988) evolved a balance theory, now referred to as A-B-X, to explain how this relation between attitude and liking takes place. What it comes down to is that it is easier for us to have the same attitudes as the people that we like, and it is easier to like the people who have the same attitudes, in order to avoid the psychological stress that results from an inconsistency of attitudes about people and attitude objects. We prefer people who have the same values we do, such as those about politics and religion, and are drawn to them. Dissimilar values cause us to reject them and to draw away (see Brown, 1965, pp. 549–609).

Balance and dissonance theories apply in some other areas of attraction as well. We are attracted to winners, and we reject losers. People who are perceived as successful are usually popular, and those who are perceived as unsuccessful are unpopular. We like to believe that people get what they deserve. If people are losers, we prefer to believe that they deserve to lose. If people are successful, we prefer to believe that they deserve to be successful. These conclusions fit with our notions of justice. If we hear about an accident, we tend to believe that the victim was somehow to blame and that the blame increases along with the seriousness of the accident. We do not want to believe

that the guilty go unpunished or that the innocent suffer, so we rationalize success and failure in order to minimize our discomfort (Lerner, 1971).

We dislike people who punish us and like people who reward us. We like people from whom we get the behavior we want and dislike people from whom we get the behavior we do not want. This response indicates that our emotions, our feelings about others, have an external explanation. When we have a feeling, we look for what or who provoked it. Behaviorist or reinforcement psychology explains this by saying that we seek reward and avoid punishment, so we seek out people who reward us with the behavior we want and avoid people who are punishing to be with. To do otherwise would create a dissonance. Similarly, we dislike people we have treated badly and like people we have treated well. If we have mistreated another, we tend to lower our opinion of that person so that our opinion is consistent with our treatment. The same thing is true in reverse. If we have treated someone well, they must be deserving, so we raise our opinion. Because we want to avoid dissonance, our liking or disliking of another is tied both to how that person has treated us and how we have treated that person.

If we go back to the room in which the two people are together in proximity, we can now identify even more things that might influence how they feel about one another. Physical appearance is the most immediately available information about the other person, including whether the two people are in some way similar. But when they interact, other information may become predominant. They will begin to discover tone of voice, regional dialect, social class, background, education, temperament, and religion. They may also discover perceived similarity of personality, attitudes, beliefs, and values, whether they have shared stressful experiences, whether they are perceived as successful, and how they have treated one another. Attraction to another may end up being a combination of all of these. John Money (1986) claims that each person has what he calls a "love map." He believes the mental maps are developed between the ages of 5 and 8 or younger in response to family, friends, and experiences. In part, the map is what the children are used to and are comfortable with based on their homes and how their parents and others treated them. Certain things about friends, relatives, and acquaintances will be appealing or unappealing, and they will become a part of memories. Gradually these memories will begin to take on a pattern, becoming a subliminal template for what is attractive or unattractive. As a person grows, the unconscious map takes on the shape and composition of a proto-image for what is attractive and preferred in others and for what is not. The proto-image can solidify and can be quite specific about appearance, body, race, color, temperament, laugh, patience, voice, clothing, smile, social class, and values. A person may already have constructed some basic elements of preferred others and need only actually see someone who falls within these parameters in

order to be attracted. This explanation says that attraction is the result of a combination of things about the other person that matches the map or proto-image in one's unconscious memory. In addition to the swiftness with which we perceive others, this is a further explanation for why an attraction may proceed with an apparent minimum of information.

Social Sensitivity

Empathy is one of those words that is difficult to pin down. We know, for example, that empathy may exist between actors and audiences and that they are often responding to one another, and that this influences further responses as they continue to interact. Part of a good performance is having actors who understand what the audience is experiencing. Empathy suggests an exchange of feelings and some mutual understanding. The word originated in 1897 as "einfuhlund," meaning "objective motor mimicry," and was translated as "empathy" in 1908 by Edward B. Tichener of Cornell University. If you watch a football player straining to catch a pass and find that you are simultaneously leaning hard against the person next to you, it is because you are engaging in objective motor mimicry as you empathize with the athlete. Empathy includes an accurate understanding of the other person's thoughts and motives and emotions. Redmond (1985) defined it as responses that demonstrate "an understanding of the other's internal state." An empathic person would have the ability to "decenter" (become less egocentric) and exhibit "social sensitivity," even if only for a brief time. This would involve an ability to establish rapport, take the role of the other, and anticipate feelings, reactions, and behavior (Barbour, 1981).

A line of research at the University of Denver (Larson, et al., 1978) established the relationship between interpersonal competency and empathy. Imagine the following scene. You enter an elementary school playground looking for the site of a meeting in the school building. There is a child on the playground, a 7-year-old girl. You do not know how to get to the lunchroom where the meeting is being held, so you ask the girl. What you want are accurate directions so you can find the room. The girl might just say, "It's in there." Or she might pause and think to herself, "If I were that person, what would I have to do to get to the lunchroom? I guess I'd go in the front door and turn right and at the end of the hall, I'd turn left, and there would be the lunch room." She might change roles with you briefly. An interpersonally competent child would know how much information was necessary to provide you with the directions you needed because she could empathize with being you and going there. In some cases, "It's in there," might be enough, but then again, it might not be. Usually, the more disoriented a person is, the more information

we need to provide. If the child is unable even briefly to put herself in your role, we would say that she lacked an ability to empathize and was also less competent interpersonally. It is easier to provide a helpful answer if you can understand what the other person's needs are. Empathy goes beyond mere information and accuracy to include feelings. An empathic 7-year-old might also take into account what it is like to be going to a meeting at a school, what it is like to be lost, and what it is like to have to rely on a 7-year-old for directions.

If we can take this ability or inability to empathize and place it in the context of the discussion of tele, we may be able to see some applications. Some people lack social sensitivity and are unable to take the roles of others, even briefly, and are typically seen as interpersonally incompetent individuals. They have no idea what is going on in the minds of the others because they cannot "decenter" from themselves. They cannot understand others' motives or feelings. Moreno did not say that everyone experienced tele or that it worked all of the time. But some people do have that ability, even very young ones. They can take the role of the other, can empathize, can be sensitive to the other's thoughts and feelings, and can be responsive to them. In that context, it becomes easier to see how that empathy might even include mutual positive and negative feelings that people have about one another.

Relationship Transactions

The attempts to arrive at accurate models of human communication have undergone an interesting transformation in the past century. The first stage of development was called the action stage and occurred between 1890 and the 1930s. It was drawn from linear mechanics and focused on what the sender of a message would have to do to establish communication. How must the speaker act? The second stage (from approximately the 1940s through the 1960s) was called the interaction stage, as theorists became concerned with control and added the concept of feedback to the model. Control could only be achieved, they reasoned, if the sender knew how the receiver was responding to the message, so a feedback loop was added to let the sender have that information. To this model was added the element of time, showing that at Time 1 there was a sender and a receiver and at Time 2 the sender became the receiver and the receiver the sender. At Time 3, the roles reversed again, signifying turn taking. The third stage of model development was from the 1960s to the present time. In it, transactional models have been used to show that human communication is not a linear process and that at any given time, the two interactants are both simultaneously sending and receiving messages from one another and are constantly in the process of making adjustments to the messages they are exchanging regardless of which one is talking (Smith &

Williamson, 1977). (Consider how you adjust whatever you say in midsentence based on your responses to the facial cues of the other person.) Human interaction is not a simple turn-taking of alternating speakers but a very fluid dynamic process of constant transaction between two people, each highly dependent upon the messages of the other. Add to this transactional interdependency one further element. Anthropologist Gregory Bateson (1970, 1972) pointed out that all human statements are made up of an object level and a relationship level. Whenever we send a message, we actually send two at the same time. The message on the object level is about whatever it is we are talking about, and the other one is a parallel metamessage about how the two people are relating to each other. Sometimes we may understand very well what we are being told but may not like the way in which we are being told it because it disconfirms us. People do not often talk directly about their relationships, but they usually know what that relationship is. More often than not, the message about the relationship that is being communicated is a nonverbal one and is understood because of facial expression or the paralinguistics of the spoken language. Facial expression and paralinguistics are usually how we communicate emotion, including emotions we might have about the other person. We respond to these relationship messages but not usually on a conscious level. They are a part of all of those factors and cues that we integrate when we form an impression of the other person, and they of us. Based on this perspective, we could say that relationships, whether positive or negative, are being negotiated or transacted between people as they interact, and that each content message sent and received also is accompanied by a parallel message about the relationship as it develops.

The accumulation of this information about how we perceive each other, how we are attracted to, empathize with, and communicate with each other, and how we send relationship messages to each other provides a variety of explanations for why positive or negative feelings might be felt and even reciprocated. When two people are in the presence of one another, and aware of one another, even if they have not yet begun talking, it is not as if nothing is going on. The mere presence of another person is sufficient to set off all sorts of responses in both persons. No wonder that Moreno might have thought the air was "charged" between them. And then, when the two begin to interact and relate, they also find out more about one another and reduce the ambiguity between them, discovering whether there is the possibility for closeness or distancing, whether there is interest or disinterest. The tele effect seems to be less a mystical event and more the natural consequence of such interaction.

Based on this discussion, one could say that tele is feelings of attraction or rejection between people and is the result of a dynamic and transactional process of impression formation and ambiguity reduction. The tele effect is a mutuality of these positive and/or negative feelings between two persons that

results in an increased probability for mutual sociometric choices. One could also conclude from this discussion, that the tele effect is based on a sensitivity to interpersonal perceptual cues, is integrated into a total impression, and is compared with cultural and personal standards for acceptability. This whole tele-effect process is swift and largely unconscious.

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Clinical Sociometry to Define Space in Family Systems

ANTONY WILLIAMS

ABSTRACT. If living systems incorporate only such new information as is consonant with their existing structures, there is room, the author contends, for sociometry to be classified as an "approved provider" of non-alien information. In this article, the author focuses on (a) the themes of construction of meaning, intensity, time, and space; (b) outlines forms of sociometry to track people's construction of events in time (their stories) by the use of spatial correlates; and (c) suggests that because time and space inescapably constitute human existence, people's lives are shaped, even constituted, through interpretation of experience over time. The nature of their stories, or constructs-in-time, determine real directions in their lives and relationships. Examples are given throughout from family therapy.

WHEN A THERAPIST ENTERS A CLIENT'S WORLD and proposes that things can be different from what they are, sometimes that client shuts down. How can this be? Maturana and Varela (1980) propose that living systems are autonomous, self-creating organizations that simply go on being themselves in their own way. If they are too disturbed by something outside, that disturbance is perceived as a threat to autonomy, and the system spits out the intruder or intruding idea. Therapists call this *resistance*. When a disturbance comes from outside that seems to enhance the system's autonomy, the system will reform around that disturbance. It makes a new configuration; it means something different to itself.

Enter the sociometrist. Appropriate sociometric interventions can extend systems' definitions of themselves and allow room for change. Sociometrists are measurers, strategically neutral persons who recognize a system according to all its connections and do not try to change it. The practice of sociometry involves neither the desire nor the need to change that which is being mapped. Sociometrists do not need to know how to live better than the client system

does or presume to know that system better than it knows itself. With luck, a sociometrist does not have to be spat out of the system.

Because sociometry only measures, the sociometrist is able to accept and confirm another system as it is. The neutrality of the measurer or metrician allows the family to define itself and to choose a way of being that may suit it better than the old way. At the end, the sociometrist and the family can peacefully leave each other when their work is finished; each party is aware that it seeks nothing from the other.

Defining the Systemic Process by Sociometry

Systemic therapy attends to the way meanings are constructed out of social interaction—the tunes we collectively make up and then dance to. The subject of the therapy can be an individual, a couple, a family, or a larger organization—no matter. Systemic therapy, like psychodrama, focuses more on relationships, systems, and space between people than on intrapsychic processes. Moreno's original notion of role was decidedly interpersonal: "[T]he functioning form the individual assumes in the specific moment he [sic] reacts to a specific situation in which persons or objects are involved" (1964, p. iv). Only by recognizing the interaction of roles within a family does one have a chance of recognizing the system's unique way of being itself. The therapist and the clients must consider these questions:

What is more important in this family—academic success or a rich emotional life?

When people in this family argue, does it mean they care more about each other or less?

When she is crying, do you think she is being stubborn in her attempts to gain a foothold on the attention of this family, or do you think she is spontaneously expressing raw emotional pain?

Sociometry is a measure of companionships and changes in companionships. As an instrument of movement, it charts emotional relationships in perpetual motion. To record is also to create. Information, although emanating from the observed system, is created about the patterns that connect people—alliances, triangles, and shifting emotional currents, which are the contours of interpersonal space (Williams, 1991). When the actual and hypothetical connections between people are recognized, the system can expand its domain. The release of information is of a circular nature that matches the circular nature of causality in a group of people. Solutions or proposals for betterment are not necessary. The solutions are there already and can be activated when the domain is expanded and when there is room to move.

The sociometric mentality can well suit family therapy: Relations of space, time, energy, and movement are critical to systemic ideas of human behavior.

Physical and visual sociometry, however, is under exploited in family therapy. With the exception of Virginia Satir, few high-profile family therapists seem to be aware of the possibility of translating systems theory into physical form, using space and of allowing spatial metaphors to stand for human relationships. Yet questions that family therapists routinely ask, in order to help the family define the system for itself—Who in the family enjoys stealing the most? If the fighting stopped, who would experience the greatest sense of emptiness, of the void? Who would be the first to recognize that Debbie runs away because she wants her father and mother to get close?—are truly companion-measures and can be regarded as sociometric. Family members can answer in different ways: conversationally or by drawing on a whiteboard or by moving across the room and taking up particular positions.

Deepening the Systemic Process With Action

People do not have to be very long together before their problems become locked on linguistic rails, switched into circuits leading to leaden conclusions—the same conclusions they reached an hour ago, last week, or last year. Using words alone, family members are less likely to surprise one another by what they say—they have heard it all before.

They may have heard it all before, but certainly, they have not seen it all before. Sociometry, especially when it is performed in action, carries a new meaning out of the dark and says "Boo!" In moving over a map of meaning (which just a second ago was only a carpet in a therapist's office), the body's swing induces a swing of the mind. Members take a position in interpersonal space that represents their position in inner space: They compare their opinions, values, and choices with the opinions, values, and choices of their intimates. Bodies and consciousness swing together. Meaning becomes so strangely personal, so obviously interpersonal. The room itself becomes a matrix of belief.

Freed from their blanket of words, the underlying emotional tracks on which the family runs emerge into the open. Now that these tracks, and where they lead, glint in the light, the compulsion to follow them goes: This is not the way it has to be; it is simply the way it was. New pathways can be made, explored, and placed beside the old, so that the way it was and the way it may be can be compared. Which way of being suits members better? Who was most attached to the old ways? Whom did the old ways most protect? Who went on the old way because some other loved person was already on it? These types of questions help the system to define itself to itself. The sociometrist is not recommending anything but is simply providing ways for people to describe their relationships.

Sociometry's secret is the use of space to represent other factors—time, valency, intensity. Scaling represents the simplest form of recording difference in degree. One of the most frequently used methods in the modern brief therapies (e.g., de Shazer, 1988), scaling is heaven-sent for action methods. Unlike talk therapists who do scaling, action-methods practitioners are able not only to ask about differences but also to have them enacted. It is easy work for a sociometrist to make space represent time or intensity or division of opinion. For example:

Peter, who complains of "feelings of inadequacy" because of his poor relationship with his father, is asked physically to create a ten-point scale with 10 representing "Extreme confidence-no approval-seeking behaviour," and 1 standing for "Total lack of confidence, and always behaving in an approval-seeking manner." He places himself on 5, the position he feels himself to occupy most of the time. In the interview-in-role, he describes his experience at that level. When asked whether he has ever been less than a 5, Peter says that in his day, he has been at a 3. He moves to that spot, and is again interviewed in role, describing all his feelings, beliefs, actions and relationships with other people at a 3. Then, back at 5, he elaborately describes how he made the transition from a 3 to a 5, with the therapist "responding to responses" (White, 1986) and amplifying Peter's personal agency by attributing success to himself. He is then asked where he would be on the scale to be happy with himself. Peter says "A nine!" He moves up the scale, point by point, describing the difference between a 5 and a 6, a 6 and a 7. Curiously, he looks increasingly uncertain as he moves up the scale—embarrassed almost. He says he does not know what a 10 would be like, and is fairly vague about a 9, or even an 8. "Perhaps a seven would do me pretty good," he says. Two months later, Peter commented that by looking at where he was and where he had come from, he realized how he had changed. He had been "too idealistic" about where he wanted to be: "I was not accepting where I was at, and that was creating a lot of inner conflict ... the ability to accept being at where I am now sunk right into my psyche ... it felt stupid to be otherwise."

This linear form of sociometry concerned difference in degree, which is one of the most frequently garnered types of difference in therapy (How bad is your depression—on a ten-point scale? Show the amount you have been most hassled by your children compared with the amount you are now hassled by them.). It is not, however, particularly circular in its conception. More circular forms, and the reason for them, will be discussed later.

Sociometry provides "hot" knowledge to its consumers and their therapists. It provides "cool" knowledge, too. Even while it so vividly immerses people in experience, it simultaneously shows them the system that is their context. Non-interventive sociometry, providing information on one's system as it is without gloss, can enable people to transcend that system and create a new one. Giving a sort of read-out of the system as is allows room for creating new patterns and thus changing the system. The sociometrist disturbs the system by asking questions about what is and what will be. These questions provide room for existing definitions and new definitions to be generated, if desired.

The Social Construction of Reality

Sociometrists are not interested in truth, only in interactions, opinions, and choices, which is just as well. In making an argument for the use of sociometry in clinical settings, one needs three preliminary propositions. The first is to assert a constructivist rather than a structural view of our knowledge of the world; because these constructions have a temporal base (past, present, future), they may be called "stories" or narratives. The second is to suggest that any changes in the world of living creatures comes about as a response to information, and that information consists of the perception of difference. And the third is to assert that influence in a group, such as a family, occurs and is best tracked in a circular fashion.

Social Construction of Reality

Contemporary systemic practitioners favor a constructivist view of reality, that is, that although it is acknowledged that there is a reality, we cannot know it and have no absolute access to it. Instead, we construct it, primarily through interpretations emerging in dialogue with other people. In the postmodern world, the search for universal truths has given way to an acceptance of the validity of an ever-changing collection of local narratives (Rorty, 1990). We do not make up reality on our own; rather, it is a mixture of personal, social, and cultural ingredients.

The basis of sociometric investigation is not a psyche which is bound up with the individual's organism but individual organisms moving around in space in relation to other things or other organisms also moving around them in space. (Moreno, 1953, p. 178)

Because we cannot know reality, we also cannot know how someone else ought to be; social construction theory repudiates the idea that there is only one right way to live, to be a family, to be a group, to be a group member, or to be a therapist.

Even emotion, experienced so personally, participates in lived, interactional process (Harre, 1986): a social, linguistic, and physiological process that draws its resources from the human body, from the meanings that people create around an event, and from the world that surrounds a person. Likewise

with memory—the structure of the social world and the recaller's place within it constrain and give shape to emotional experiences themselves. Our identity, our very self-ness, is a story we tell and get told. If understanding takes place in the intersubjective realm, then it follows that change in understanding also takes place within that realm. This is where sociometry is most useful because it maps the intersubjective realm and illuminates transactional patterns.

Perception of Difference

In the material world, linear notions of causality—A causes B—are sometimes adequate to provide explanation for events, at least simple ones. Where A is some force, such as a cue striking a billiard ball, B, the effect on B can be predicted, and the impact of the cue might be said to have caused the rolling of the ball. In the world of the living—trees, tigers, ants—linear notions, however, do not apply. The members of that world, to be sure, are subject to physical causality, such as gravity. But when one moves even slightly outside of physics, to a change of temperature perhaps, then the living respond to the difference by sweating or growing goose bumps or moving to the shade or the sun or fanning themselves or turning their leaves sideways or going for a dip. The response-list could go on, but billiard balls they are not. A living being might have one or scores of tactics simply to deal with something as simple as a change of temperature.

Far less do linear notions of causality apply when the living are such fulltime meaning-makers as human beings. Persons certainly respond in ways that a billiard ball cannot ever be said to have responded. Sure, they respond to information about difference, such as change in temperature, by physiological means, just as tigers do. They might make a decision to go swimming or put on a coat. But sociometrists are interested in when they interact with each other. People bump up against each other most of the time, either directly or in their imagination. They also adapt meaning systems from each other—culturally and ethnically, in families and in groups. For the most part it is simply not successful to suggest that one person's behavior causes another's because (a) that person responds from one of many options available, depending on how he or she construed the meaning of the event; and (b) the causality is to a degree circular, so that it might equally be said that the response causes the stimulus (I leave out in this discussion structures of power with respect to gender and economics, but see Hoffman [1990] and therapeutic writers such as White and Epston [1989] who have developed ideas for therapeutic conversations based on Foucault's notions of power and structure.)

At the level of the sociometrist's interest, then, human beings respond to information, which always comes in the guise of difference or change. Crucial differences are those between human beings or differences within the same human being at one time versus another; difference in intensity; difference in motivation, intent, values, or gender; differences in the amount that two people are loved by a third person, and so on. Where differences make a difference, they are called information, and human beings, says Bateson (1979) respond to information. Relevant differences (information) usually involve a relationship between two or more people, or two or more events or things, or one person at one time versus at another time. Once again, action methods and sociometry are ahead of the field in their ability to represent differences.

Circularity and Sociometry

The notion of circularity is critical to understanding systems functioning. A circular explanation of events suggests that members of a human group are constantly involved in circuits of interaction based on existing meaning. In performing actions from assumptions based on these meanings, the group members in turn create further meaning. Often, this new meaning is just the same as the old. Members wish to arrive at a new story but keep coming up with the old.

Members of the group are said to exercise recursive influence on each other—that is, A influences B who influences C who influences A, and so on. As this kind of talk becomes somewhat uninterestingly abstract, let us start with an example, follow it through in theory, and return to some sociometric questions that might be asked. Please note that much of this theory and many of these questions would also apply to other groups of people who have been together for a time, such as a therapy group or an organization.

Annie is a 21-year-old hospital orderly living at home with her 18-year-old brother, Mark, and their parents. Annie has had several sessions in hospital for anorexia and obsessive behavior and, although she exchanges necessary words with other people, will mostly speak only to her father.

A sociometrist might note from this brief description the possibilities of an alliance between Annie and father and between mother and son. It would depend on one's therapeutic timing whether one sociometrically enacted this apparent division. My own sense is that early enactment would be rather crude and that it is preferable to trace the evolution of meanings in the family, especially around the main story, "Annie is sick."

Although the behavior and story of one family member (Annie) inevitably influences the behavior and story of the others, it cannot be said that it causes the behavior and story of others for the following reasons:

- 1. People respond primarily to meaning or information, that is, their interpretations of behavior rather than the behavior itself.
- 2. These interpretations, or stories, arise from the story the group tells about that person (e.g., "Annie is the sick one in this family;" "Annie is dependent on her father;" "Annie's problems stop mother's going out to work").
 - 3. Some of these interpretations are not accessible to consciousness.
- 4. Ways of interpreting actions (stories about action) are gathered not only from that group but from other groups—that is to say, the life experience to date of all parties. For example, a teenage girl's interpretation of herself as being "fat" even though she is manifestly thin is more than an individual interpretation; it is mixed up with told and untold stories of gender and culture.
- 5. Individuals act on the system but are, at the same, time influenced by the communications they receive from the system, which is influenced by the communications they give to it, and so on ad infinitum. This last proposition would hold for Annie, for Mark, for father, and for mother.

Let us take two of the stories that the family tells about Annie and that Annie no doubt tells about herself: "Annie is dependent on father," and "Annie had trouble at school." The meanings and behaviors a family enacts form patterns; systemic sociometrists (Is the word "systemic" redundant when one writes the word "sociometrist?" Let us hope so.) Lay open those patterns for the family to see. The revelation of the patterns invites the family to rethink and reorganize around a new pattern. So, when the family says, "Annie is dependent on her father," the (sociometric) question can be asked: Who is more stuck in the relationship—Annie or her father? Stuckness is taken from its context of a thing in Annie and placed in a new context—that of relationship. If Annie is stuck on father, father might be stuck on Annie; one cannot be dependent on one's own. The comparative nature of the question (more stuck) alerts members to the difference, and the circular nature of the questioning may start to introduce a circular definition of events. When criteria imply that everything is somehow connected to everything else, certainties begin to crumble.

Annie's stuckness on her father, and her father's (greater or less—let us not worry about the answers the family gave) stuckness on Annie could lead to another set of questions around the context of this stuckness; that is, what is the effect on other people of their being stuck on each other, and what would happen if they were not? In other words, who does it help when Annie is dependent on her father?

Here a different kind of definition is again invited: the notion that if Annie were dependent on father this might help someone else. This is a new sociometric criterion, around which the family may arrange themselves. One might shift the mapping to a hypothetical future, still around this reported dependency, and ask these questions:

If Annie were not dependent on her father, would father be more or less close to mother?

If father were not dependent on Annie, would Mark be more or less successful at school?

The sociometrist/family therapist might then move to one of the other stories about Annie—that she had trouble at school. (A "story," remember, does not mean that something is untrue. It is simply a construct that has a past, a present, and a future.) The question could be: Does saying that Annie had trouble at school imply that she has less of a problem at home? Any statement of an "is," a fact, can invite comparison with the "non-is." The concern for sociometrists is not so much the event in itself but the information value of the event and especially the circuits of interaction around that information.

Let us say that one of the meanings of Annie's trouble at school was that mother stayed home from work. Did Annie cause her mother to stay home from work? If this question were asked directly (which is inadvisable because it keeps the family in exactly the sorts of meanings in which they are already involved and which are not proving useful to them), the family might say yes. Because of their existing meaning structures, they cannot possibly say no. But a mother's staying home from work when a child is sick is actually a performance of meaning; these meanings are garnered culturally from stories about mothers, from stories about mothers within the family, and from stories about ill children from mothers themselves. Elaborations of these meanings might become the basis for the next set of criteria:

Does mother stay home because Annie is sick, or does Annie become sick because mother chooses to stay home?

Would father be more or less pleased if mother had a full-time career?

Is Mark's career more enhanced or less so by his mother's staying home?

Circular questions, remarks Tomm (1988, p. 8), tend to be characterized by a general curiosity about the possible connectedness of events that include the problem, rather than by a specific need to know the precise origins of the problem. Annie does not cause her mother to stay home; the family chooses to respond, out of a universe of possible responses to Annie's sickness, by the mother's staying home. These responses form patterns that can be mapped sociometrically, either with words (merely getting verbal answers to the questions), on paper or on whiteboard, or in action.

Types of Criteria for Assessing Differences

Having expanded, albeit briefly, on some of the constructs regarding how people know reality and the circular nature of causality in human systems, I wish now to focus more specifically on some of the types of criteria that may be posed to families or groups: differences in degree, differences in perception of relationships, and differences in time.

Differences in Degree

So far, the work of the social constructionists has been used to speculate on the nature of our perception of reality and the work of Bateson has been used to suggest that, physical forces such as gravity aside, human beings change as a result of new information, be it a matter of difference in temperature or difference in opinion. The first set of sociometric criteria, therefore, might concern differences and similarities in degree. Issues of race, class, gender, and culture can be included:

Do you think you are more open about your arguments than most families or less?

Do you think, as a Catholic family, that you come more under the influence of guilt than other Catholic families, or less?

Who most subscribes to the view that it is OK for there to be one kind of treatment for poor families, and another kind for wealthy families?

Who in this family is most likely to believe that young women should attempt to look like figures on an advertising billboard?

Who thinks that it is right that when a man comes home from work he is tired and in need of relaxation, and when a woman comes home all she wants to do is see her family and prepare their food?

Our sensory systems find it difficult to detect gradual change; so, although we might know differences (which, you will recall, when important enough to us, become news or information), we may not know them until asked about them or until the differences are compressed in some way so that they are brought sharply into contrast.

The therapist might give these directions to a group: If he had realized how many people think about suicide at some stage or other in their lives, would John be more or less comforted? Stand here if you think he would be more comforted, and here if you think he would be less comforted. I would like to suggest that these contrasts account for the surprise element in sociometry. Until we place ourselves on a line, we do not know where we are in the line. The other part of the surprise, of course, is where the other people are.

Suppose that a father thinks that if he beats his children more, they will misbehave less. The sociometrist can flip the explanation and look at the other side. He might ask:

If you lost your temper less, do you think your children would still do the things they do or would they be less inclined to do them?

If your mother realized, deep down, that you appreciated the things she did for you, would it be easier or more difficult for her to say goodbye to you?

Would it be easier or more difficult for her to tolerate some of your mistakes?

(To father): If you were to recognize that you lost your temper and went too far in your caring for your children, do you think they would respect you more or less?

Difference-in-degree questions need not only be asked about persons; they can address things, values, and constructs themselves, all in aid of the family's defining itself. Questions might be raised about the degree to which various biological, social, and psychological factors might be operating in the family. For example, if a family member is stealing, it may be useful to inquire as to who in the family steals the most (where "stealing" might come to mean emotional theft), but it can also be useful to ask the values of the members around the stealing. Let us suppose the issue had been discussed for some time, and various members had views on just how bad a thing stealing was. Questions may best be put in circular fashion—that is, not directly to the person involved, but to one person about others. For example, the therapist should ask: Do you think X (your brother, your mother, your sister, your father) sees stealing more as morally wrong or more as socially destructive or more as a sick compulsion? Who most believes that anorexia nervosa will continue to run Sarah's life? Who in the family least believes that? These questions can help to clarify underlying assumptions about the nature of the problem. The family members identify their domain. The members define themselves as they are, but along dimensions supplied by the therapist. They make connections and discover possibilities that have not occurred to them before.

Differences in Perception of Relationships

Questions about perception of relationships are slightly different from questions about intensity in which members arrange themselves on a line according to the potency of their beliefs. Relationship questions provide information about alliances, coalitions, and stuck points within the family or group. Obviously, the information does not only go to the therapist or group leader. The main receivers of the news are the members themselves. The sociometrist need not necessarily "do" anything with this information because the information is about difference and because it helps to define the group as it is. The information itself becomes a powerful component in the change process.

Other sociometric processes familiar in action-methods circles might be disjunctive sociograms. The therapist might give these directions to the group: Stand to this side if you believe that Paul's attempts to kill himself are because he is angry at someone, and stand to that side if you believe it is because he is depressed. The therapist could develop three sociograms by suggesting that anyone who feels that something motivates Peter to attempt suicide should stand over there. The sociometrist introduces new connections or distinctions in thought and action by placing together previously unconnected bits of information in the questions asked. By the information alone, the family or group members may be stimulated to create a new pattern for themselves. Information, in the form of difference, which is the form of sociometry called *companion/measure*, changes the receiver. In sociometry, the members are both the givers and receivers of information; together with the therapist, they engage in a process of collective knowledge construction.

Inquiry about differences in perception of relationships can also take the form of differences between individuals (e.g., Who gets most annoyed when Philip is praised?) and differences between relationships (e.g., Is Sam (the group leader) closer to Mavis or to Angie?). Not every member need necessarily take an active part in a sociometric process, especially when that process is one of questioning, to which rapid verbal answers are given. Sociometric maps do not always have to be printed; they can exist in people's minds as well. The process of asking questions of one family member in the presence of others only apparently places the others in the role of observers. They do observe, to be sure, but it is not quite accurate to say that they are observers. As well as seeing and hearing the responses that the others give, they obtain information from their own private responses to the questions and they note the differences between these private responses and the actual responses that have been given. They also note differences between how the addressee did respond and how they as observers may have anticipated the response (Tomm, 1987, p. 176).

Differences in Time

There does not seem to be a human problem—or, at least, a psychological human problem—without a temporal dimension. Time is lived differently according to the person, the place, and the circumstances. Time does not have the same consistency when one has a migraine or when one is asleep, on holiday, or watching a movie. Temporal differences refer to changes that have occurred or might occur in the interval between two points in time. These differences can be represented in words or by space. Indeed, it is often in the compression of time, or, as White (1986) calls it, "collapsing time," that two

things or events or sets of relationships can be brought sharply against each other so that the difference between them can be noted. The case report presented here illustrates some of the questions that can be asked about time. Later, these questions will be broken into divisions—past and past, past and present, past and future, present and future, and two futures.

Weary Penny. Twenty-one-year-old Penny, the eldest of four children, lives at home with her parents. At the first interview, she appears to the therapist as "loaded and weary." She was referred by a friend because she had been many times suicidal in her final year at school and had once again attempted suicide 3 months ago. She feels "hopeless about the future."

The therapist asks Penny: In what ways does your surrender to hopelessness place your future in your own hands, and in what ways does it place it in the hands of others? The therapist next asks Penny to consider what new possibilities would open up for her if she were to side more with this new picture of herself as a person?

Here hopelessness is externalized (White, 1986), and Penny is asked to make a judgment on the effects of her surrender to it. Hopelessness, which was right up against her, part of her, constituting her, suddenly is at one step removed. These questions about hopelessness need to be considered: Does your emptiness invite others to participate more fully in your own life? Do you think Penny's emptiness invites others to participate more fully in her life? Do you think she will be a slave to her past or master of it?

She needs to leave home but construes the world as bad and frightening. Her 16-year-old sister is bulimic and was raped when she was 14. She attempted suicide last year. Her mother, an ambitious and successful career woman, was also raped when she was 14. Penny says that she gets her fear of the world from her mother.

When asked to describe the voice telling her that she is no good, Penny calls it "the incarcerating voice." The therapist asks for the origins of the voice, and together they begin to deconstruct it (past). By asking Penny to continue with her explorations of the origins of the voice, she works across time and continues to objectify and make strange what has been the all-too-familiar. Asking Penny her opinion of the opinion of the voice continues this process (the present). As the separation from the voice becomes clearer, it becomes more possible for her to orient herself to parts of her experience not accounted for by the voice (present and past). Further questions, such as: If there were some unfinished business between you and the voice, who would be the first to raise it? and Suppose it was impossible for your father to admit his meanness of spirit to you, how long would it take you to become generous of spirit to yourself?, move to the future.

In systems with rigid transactions, time stands still. "Time is arrested because pertinent information no longer circulates, and pertinent information

does not circulate because time is arrested" (Ausloos, 1986, p. 552). The past cannot be used as a resource for living in the present, either because it has become rooted in an unchanging story that is transformed into tradition or myth or because it is forgotten as rapidly as it happens. Plans cannot be made, either because what is planned will change nothing or because it is impossible to predict the incidents that might occur between the planning and the event. Both types of systems can only live in the present, without a future.

Investigating the past is one of therapy's standard procedures. As Gibney (1988, p. 185) remarked "Time and space, timelessness and spacelessness, families staying the same while professionals entertain themselves with the collection of 'objective data'...—these phenomena weave through much of clinical practice." Too constant an exploration of the past can unwittingly flag a message we may not wish to signal: It can make the observed system seem necessary. The client may think: "Since only this reality, this story exists, it is the only one possible." Rather than a deterministic approach to time and memory, where the past creates the present, it may be preferable to have a narrative view (Bruner, 1986) in which the present creates the past. That means that, to a degree, what we believe about the past constitutes the past. We read the past and the future according to our story.

Sociometrically, the components of past, present, and future can be worked on simultaneously. The relations between past and present start to change because they are seen from a different point of view: If the past can be different, which is to say, can be seen differently, a different future can be predicated on it. (Again, I exclude from this statement several matters, including those of sexual violence, where detailed political and gender-based critique is essential.) The premise for change becomes the co-creation of a series of possible worlds and possible stories from a universe of possible stories (Parry, 1991).

Categories for Questions Concerning Difference in Time

Tomm (1984) proposes some categories of temporal difference, and I will follow these for the remainder of the discussion, giving illustrations of each category.

Past and Past. When people have been stuck in problematic patterns for a long time, they may be making crucial distinctions with unwarranted certainty. Simply having the domain defined can, in itself, allow movement and ease their ability to entertain different distinctions. Sample questions might include: Were Peter and Les closer before Harry left home, or after he left? When grandfather became ill, was Lucy closer to Mary or to Jack? Given that

all families have problems dealing with anger, when did you first realize yours was just like other families?

When perception changes, reality changes too. Likewise, when a sociometrist asks, Who noticed the "symptom" first?, the element of time enters the otherwise fixed notion of symptom, and the symptom starts to be regarded less as a thing and more as an interaction or even a message from someone to someone. For example, Who noticed that Tom was going downhill and beginning to avoid people?

When sociometrists show a system as it is, according to all its connections, they provide a domain in which the system experiences the freedom to choose the particular way it will organize itself. This domain offers an opportunity for self-creation. The recognition or acceptance of a system's unique way of being itself effectively frees the system to respond to the presenting problem more freely. It acknowledges that the system itself is the only valid source of resources for dealing with threats to survival. Such thoughts, presumably, also lie behind the use of the mirror in psychodrama and empathy in conventional therapy.

Past and Present. Whenever a sociometrist asks questions—When did you begin thinking this way? or How long have you been having these ideas?—the client's perception becomes connected to a particular moment in time. The problem is thus defined as it was; the question implies that there was a time before which no problem existed and after which it may no longer exist. Now the problem is relativized, and it may start to lose its hold. The therapist might ask these questions: When did Angela (a self-starving adolescent) decide to lose her appetite? If this line represents her whole life, can you stand on a spot when that time was? Do Peter and Les fight more now, or did they fight more when Harry was still with the group?

Various means have been devised for recording temporal aspects of family history. The standard genogram format may give dates but does not show temporal patterns directly. As Friedman, Rohrbaugh, and Krakauer (1988) remarked, coincidences of life events, relational repercussions of loss, and life-cycle fit—the timing of marriages, births, and so forth—can be easily missed. These authors proposed a time-line genogram, in which the vertical axis is a time scale extending back many years, perhaps even 100 or more. Duhl (1981) developed a chronological chart, a grid for recording experiences and reactions of family members over time. Stanton (1992) described his method for graphically clarifying the relationship between life-cycle events and the onset of problems.

In activities such as "A Walk Down Memory Lane," a couple simply walks a time line representing the period from the day that they first met until the present. Each step represents a significant event or decision. Each person has the right to describe the significance of the next step. If it had been a step for one of them, it is still taken as a step by both, even though it may have been insignificant for the partner. The couple can take as many steps as they like, so long as they keep the events in chronological order (Williams 1989). This sort of format makes use of a linear construct of time according to which the past seems to determine the present and constrain the future. Nevertheless, it is of some comfort for a couple to see where they have been and where they are now. The present makes sense to them in the light of the small steps of their history—this is when they decided to get engaged; this is when they bought the house; this is when one of them considered an affair; this is when they decided to have a baby, but could not; this is when their first, their second child was born; this is when grandpa died and they went into crisis, and so on. Taking people through their personal history—the history of their marriage, the history of their depression, their athletic history, their spiritual history, or whatever—is a fine example of hands-off sociometry. The couple's premises and actions are not under scrutiny; they simply walk a line leading to the present. Blame is absent. Symptoms, which may have made the family confused and upset, become understandable. The family shows only "what is," but in the very showing, a domain of freedom is provided, and necessity's grim grip loosens.

Past and Future. Therapy might well direct people's attention to the past, but it does so in order to deconstruct present beliefs about how the system has encouraged the present solutions rather than other ones and what network of interactions have been created around these present solutions. That deconstruction creates the present solutions. Attention might then shift to the future and to the evolution of present relationships into the future, and hypothetical and future questions are generated to introduce alternative readings of the present and the past. Hypothetical questions are posed about the past and the present as the therapist tries to search for other definitions in the past different from those already accepted and to provoke the client to imagining different possibilities. For example, If X had never happened, how would Y be changed now? If A had happened, how would your relationship with B be?

The past is created in the present by more than a single person. It is co-created through interaction, and our immediates and our culture change our vision of the past. Memory is one of those processes that involves the social and emotional construction of selves. Historical memory might be construed as an interpretation of the past shared by most of a culture (Boscolo and Bertrando, 1992, p. 126). The present is the fruit of the past, but because it constantly recreates the past that created it, this new past has an effect on the present.

Present and Future and Two Futures. In the first session with a client or family, it is customary to begin with the present, that is, with the presenting

problem and the meanings given to that problem, attempts to solve that problem, and other people who may be involved with the problem, either in the family, workplace, school, and so on. When these meanings are well enough established, the therapist may shift attention to the past, considering how these meanings have evolved over time. What event seemed to precipitate the evolution of these meanings? Who is involved in this network of interactions, and how are they involved? Next, what do these meanings mean for the future, and how do the clients think present relationships will evolve into the future?

Numerous family therapists (e.g., Penn, 1985; Tomm, 1988; White, 1989) have written on questions setting a future, and Chasin, Roth, and Bograd (1989) have published their innovative work in *Family Process* on dramatizing ideal futures and reformed pasts with couples. Certainly, vital questions for solution-focused therapists concern time in the future—the time beyond the end of therapy. They might ask questions such as the following: When therapy comes to an end, who will be the most upset? Who will have changed the most? Who will most notice those changes? Who will be the most relieved when it is all over?

The future need not be the future that the clients predict. The therapist may introduce different sorts of futures in order to make the past live—e.g., Erikson's "Pseudo Orientation in Time." With chaotic systems, the therapist can give back the past, permitting a future to exist in time. Acting in the future can have several different effects. The therapist can accept the problem as given and as definitive but somehow insinuate a different future by saying, "For the present, it might be premature for you to change," or "For the time being, go on doing things as you are doing now." The future then enters the temporal reality of clients as an unexpected future as if the problem were of no account or as if the problem could lose its validity in time. That is possibly why the Miracle Question (de Shazer, 1988), or variations on it suggested here is so powerful.

- When Bill is no longer threatening suicide, who will be the next person wanting to distract mother from her pain?
- If next week Bill decides that he will go back to work, would father or mother take most of the credit?
- What difference will knowing this about yourself make to your next steps?

White (1989, p. 44) referred to questions regarding the future as "unique possibility questions." These are questions that invite family members to speculate about the new personal and relationship futures that are attached to their new stories about themselves. The questions encourage family members to investigate alternative knowledges of self and relationships and to uncover what hints these alternative knowledges might provide about future possibilities and the steps that might be taken to realize them. "Steps" are always a

danger (being close to "goals," i.e., processes that the family is already involved in but are not working out), and so discussion of impending steps is usually accompanied by a debate on the readiness of family members to take the next step. During this process, the new direction becomes more tangible, appearing to take a life of its own. The future, as it were, becomes "now."

Conclusion

Sociometrists holding a constructionist view of the world try to apply that view to their own processes; that is, although they might be skillful at their job, they do not know "reality" either. Lyn Hoffman (1990) prefers to describe her role as "visiting ethnographer" (as opposed to visiting expert) who has no "definition of pathology," no idea of "dysfunctional structures," and no "set ideas about what should or should not change." Sociometrists are skillful at what they do but are not charismatic experts in human living. The intent behind their criteria is predominantly exploratory. They are measurers, explorers, researchers, journalists, and scientists who chart the uncharted and report the unreported. Their guiding presuppositions are interactional and systemic. Their criteria are formulated to bring out the patterns that connect persons, objects, actions, perceptions, ideas, feelings, events, and beliefs. All of these are grist for the sociometric mill.

Relationships between parts of any system are reciprocal and hence circular. Processes designed to find out about relationships, therefore, need to reflect this circularity. Sociometry, as practiced, already has some of these characteristics, in that it is inherently nonlinear and nonreductionist and is able to encompass the political and cultural as well as the personal. The sociometrist triggers the release of information into a system by inquiring about differences. Ideally, sociometric criteria are designed to reveal clients' structures of meaning; the criteria are set to yield information about differences relating to issues with which the client, family, or group is struggling. The sociometrist does not know what these new meanings will be; nor does the client. In this, they are equal.

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