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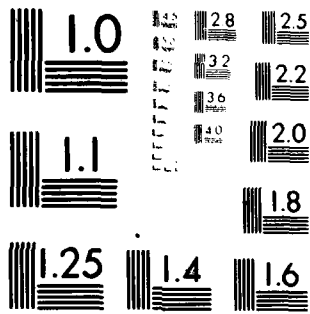
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work that must occur with dynamic living systems.

The process of organizational diagnosis is shaped by the condition of the system being studied. The effects of underbounded and overbounded organizations influence what will happen to diagnosticians as they attempt to proceed with entry, data collection, and feedback. Respondent system dynamics in part determine the consequences of using certain diagnostic techniques. The effect of the intersection between the diagnostic process and an understanding of system dynamics is to establish a series of contingencies that suggest which techniques in what order are most appropriate to particular system conditions.

Organizational diagnosis is an intergroup event when viewed from the perspective of intergroup theory. Thus the process of learning about the group and intergroup dynamics of a system also creates a set of dynamics, which themselves both aid and impede the diagnostic process. The liaison system established to relate the researchers to the respondent system is the primary vehicle for using and managing the intergroup dynamics of the diagnostic process in the service of the diagnostic objectives. Intergroup theory used normatively to aid learning provides prescriptions for constructing an appropriate liaison system in any given situation and for aiding the diagnostic team in managing its own dynamics.

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Chapter Three

THEORY II:

THE METHODOLOGY OF DIAGNOSING GROUP AND INTERGROUP RELATIONS IN ORGANIZATIONS

This chapter continues the presentation of theory. In the preceding chapter the emphasis was on the phenomena of group and intergroup relations in living human systems. In this chapter the focus is on the methods, procedures, and processes for conducting intergroup research in organizations using group methods. There are four major sections:

In the first section, we define and analyze organizational diagnosis as a clinical methodology for studying organizations. This section examines how traditional tools of social research (i.e., observation, interviews, questionnaires, archives) and the methods of social intervention (e.g., building liaison systems, conducting feedback sessions) may be used for diagnosis. It provides a series of contingencies for determining whether and, if so, when the various instruments may be used most effectively.

In the second section, we examine the effects on the diagnostic process of dealing with overbounded or underbounded human systems. In conducting organizational diagnoses investigators must deal with individuals, groups, and the organization-as-a-whole. The boundary conditions of those human systems provide a second set of contingencies that shape whether and, if so, when certain instruments should be used.

In the third section, we make use of group and intergroup theory to take account of organizational diagnosis as an intergroup transaction. The inter-

group nature of organizational diagnosis has implications for composition of the diagnostic team in advance of starting diagnosis and for behavior in each phase of the process. Both the second and third sections provide systematic means for investigators using the methodology to reflect upon and, as appropriate, adjust their own behavior as a function of their encounters with the system being studied. The second and third sections also connect the theory of method given in the first section to the theory of phenomena presented in the preceding chapter.

Finally, in the fourth section, we explicitly address how the two bodies of theory that have been presented address the problems with both historical and contemporary work that were identified in the opening chapter.

The Methodology of Organizational Diagnosis¹

Organizational diagnosis is a process based upon behavioral science theory for publicly entering a human system, collecting valid data about human experiences with that system, and feeding that information back to the system to promote increased understanding of the system by its members. The purpose of organizational diagnosis is to establish a widely shared understanding of a system and, based upon that understanding, to determine whether change is desirable (Alderfer, 1976).

Inevitably the organizational diagnosis has a tendency to provoke change in a human system, but the perspective presented here distinguishes the aims of diagnosis from those of planned change. According to the present view,

¹This section draws heavily on Alderfer (1980).

diagnosticians attempt to change an organization only as far as is necessary to accomplish the purpose of diagnosis. Otherwise they do not attempt to promote change, no matter how promising are the opportunities that seem to present themselves. Deriving from the broad class of clinical social science, diagnostic theory and methods may be used for "basic", "applied", and "action" research.

This stance regarding change during diagnosis combines an understanding of organizational behavior with a value position regarding effective professional work in applied behavioral science. The work of organizational diagnosis may require the professional to work with the organization as a whole--including organization-environment relations, groups inside and outside the organization, and individuals whose lives are shaped by the organization and who in turn determine the nature of the organization. As a result, theory relevant to individuals, groups, and the organization as a whole is crucial to work of diagnosis. Simply to survive, the professional must know how to develop and to maintain working relationships with the system and its major components. To complete the work of understanding a system, the professional must know what data to obtain, how to collect it, and how to feed it back to the system to promote understanding. Because resistance to inquiry is a common human characteristic, diagnosticians are ill-equipped if they cannot identify and work through resistances to their work. Therefore without skills to effect change, diagnosticians' capacity to complete the diagnostic mission may be blocked by the very processes they are attempting to understand. On the other hand, normally occurring respondent resistance cannot become part of the researchers' justification for acting unilaterally and arbitrarily in the face

of that resistance. Researchers who aspire to excellence in their diagnostic work cannot achieve this goal without respondent cooperation. By stating and then maintaining that the initial work with a system is diagnosis, investigators provide respondents with bases against which they can be held accountable. Investigators also provide a means for protecting themselves against excessive and unproductive demands by respondents during diagnosis. This approach sets limits on how researchers will use their skills and knowledge during diagnosis and, in general, develops expectations about what investigators and respondents can count on from one another during the diagnostic process.

Organizational diagnosis proceeds in three orderly phases: entry, data collection, and feedback. These phases are well defined because there are a clearly observable beginning and end to each one. But the phases are also overlapping to a degree. The term "recursive" explains the nature of the overlap between each phase and the other two. Each phase has primary objectives, which determine the major thrust of the work in that phase, and secondary objectives, which relate the other two phases to whichever phase is being undertaken. Thus, there is some data collection and some feedback during entry, some entry and some feedback in data collection, and some entry and some data collection at feedback.

Entry

The primary objectives of entry are to determine which units of the system (individual, group, and organization) will participate in the diagnosis and to determine whether the researcher and respondent can reach agreement about their respective roles during data collection and feedback.

Entry begins with the first encounter between system and researcher and ends with a decision between the parties stating whether they can work together to complete the diagnosis. Entry is also a time for data collection as the researcher begins to learn about the system through conversations, observations, and documents. The close of entry, whether the decision is to terminate or to proceed with the next phases, provides respondents with some feedback about how the investigator views the system.

People cannot be investigators in systems in which they are fullfledged members. All individuals have vested interests in their own organizations. Even if individuals did not press their own interests, other members of the system would be unable to accept a researcher relationship from a peer, and the complete insider would be rendered ineffective as a result. Being at least partial outsiders therefore is part of the equipment of the organizational researchers. Without this role element, they cannot function effectively. Internal researchers, for example, can work in parts of a larger system where they have not been or currently are not members. But they cannot study their own groups, and they generally have a great deal of difficulty with parts of the system where they have recently been members. Being an outsider, while necessary for diagnostic work, is also a problematic feature of the researcher's role. Because researchers are outsiders, they can easily be prevented from understanding crucial elements of the system. Therefore the investigator must establish some type of liaison system to manage the relationship between the researcher and those elements of the system where diagnosis will take place. Depending on the nature of the system, the liaison system may be an individual, a series of individuals, or a group.

Whatever the state of an organization's boundaries before the entry process begins, they become more permeable during the time when respondent and researcher are exploring whether a complete diagnosis should take place. Outsiders, at least temporarily, are granted access to the organization--an experience that inevitably generates threat for the organization and its members. Entry is like a natural experiment providing researchers with an opportunity to observe how the system responds when its boundaries become more permeable.

As human beings themselves, researchers also experience the period of entry as a time of anxiety (Devereux, 1967). In part this arises because the researchers are dealing with their potential acceptance or rejection by the respondent system. The more self-awareness and experience the researchers have, the less these feelings will interfere with their effectiveness during entry. In addition, the researcher will also experience the effects set off in the system by the stress on the organization's boundaries. As an "authority" on organizational behavior from outside, the researcher is a likely target for feelings that organization members have for authority figures inside their system, via the mechanism of projection (Freud, A., 1946; Freud, S., 1922).

The paradox of entry is that while it provides one of the best opportunities to observe organizational dynamics, it does so under relatively poor conditions. Researchers' anxiety and their work of managing the respondent relationship to reach a decision about diagnosis interferes with their making the most out of the data available at entry. Nonetheless, entry generally tells the organization's story very well. As a working heuristic, it is useful to assume, "The

major dynamics are all observable at entry, if the investigator is able to perceive them."

The data available at entry can become the bases of working hypotheses for testing during data collection and feedback. As a matter of normal professional practice it is useful to record systematically the hypotheses that are stimulated by entry events. The activity calls for the discipline of developing at least two hypotheses to explain each entry event deemed worthy of attention, an approach first advocated by Harry Stack Sullivan (1954) in connection with psychiatric interviews. Alternative hypotheses can be readily generated by changing levels of analysis (from individual, to group, to organization) and using concepts from each level to explain what is observed. Typically later data collection shows how informative the entry events were. Often hypotheses that initially seemed to be competitive explanations each turn out to provide partial understanding of the phenomena observed.

An entry from which respondents and researchers agree to proceed with the diagnosis ends most effectively with an exchange of letters between the two parties. The exchange of letters is confirmation of agreements reached earlier through face-to-face conversations. Usually the investigator takes the initiative to write the "contract" letter and asks the respondent to reply briefly in writing. When the system and investigator cannot reach agreement about how to proceed, the entry process ends sometime before the exchange of letters. Rarely are letters exchanged if there is not agreement to proceed with the diagnosis. It is generally good practice, however, to confirm with the respondent that the diagnosis will not occur and, if possible,

to establish why this decision was taken (Lewicki and Alderfer, 1973; Berg, 1978).

The contract letter covers the major dimensions of data collection and feedback. By the end of entry, the investigator should be clear about which units will participate in the diagnosis and about the methods to be used to collect information. These understandings should be stated in the contract letter. Inevitably the researcher will be less clear about how the feedback process should occur because that will depend in part on what is learned during the data collection phase. Nonetheless some statements about feedback should be included in the contract letter. It is generally better to be able to agree that all people who participate in the diagnosis will receive feedback. Respondents are more likely to participate energetically in data collection if they feel that they will be able to learn from the process. However, it is usually more difficult to know the design of the feedback sessions without systematic data. But by the end of entry the researcher should have a pretty good idea of the likely alternatives, and these should be stated in the contract letter.

At the close of entry the researcher should have a reasonably well developed idea of what will be necessary to understand the system, although this knowledge will be incomplete and may require changes in the contract as greater knowledge of the system becomes available. The contract letter should acknowledge the likely limitations of the entry-based knowledge of the system and identify the possibility that either party may want to modify the contract as the diagnostic study unfolds.

A contract letter covering all the elements described above tells a per-

ceptive respondent a lot about what the researcher has learned about the system during entry. The letter is written to establish publicly what the respondent and researcher have learned about how they will work together during the diagnosis. As such, it is a statement about the respondent organization, the researcher, and their interdependence during diagnosis. The contract states the terms of the intergroup relationship between the respondent organization and the investigative team. Indirectly it is also the first form of systematic feedback respondents receive from the investigators.

Data Collection

The primary objectives of data collection are to gather valid information about the nature of the system systematically and to prepare an analysis of that data for delivery to respondents during feedback. Data collection begins when the investigator prepares a methodology for eliciting information and contacts members of the system to implement the methodology. Data collection ends when the researcher has analyzed the data and is prepared to feedback the results to the respondents. Each data collection episode begins by establishing the bases of the respondent-investigator relationship and, as such, is like entry. These unstructured events provide the researcher with a continuing basis for revising or confirming hypotheses about the organization. In the process of eliciting data from respondents, the researcher becomes increasingly specific about the kinds of data that will be useful. The search for increasingly precise information indirectly tells respondents what the investigator thinks is important and thereby serves as a type of feedback.

Whatever form of liaison system the investigator has developed during entry

plays a key role during data collection. The liaison system assists the investigator determining what data to collect, from whom to collect it, when to collect it, and how to collect it. An effective liaison system helps the researcher with access to parts of the system where data must be collected and aids in establishing credibility so the data obtained will be maximally valid. To the degree that the liaison system is a micro-cosm of the system being studied, it will provide the consultant with samples of behavioral dynamics of the system to observe. If the system or parts of the system resist the diagnostic process, the same process will be observable in the liaison system. Interventions with the liaison system to aid the diagnostic process will also have effects on the total system (Alderfer, 1977b).

The researcher's understanding of the system should become increasingly precise as the diagnostic process proceeds. Hypotheses formed during entry provide the initial conceptual foundation for developing more systematic data collection procedures during the next phase of diagnosis. Data collection instruments as well as degrees of intellectual understanding can be ordered from less to more precision. It follows that researchers should choose their instruments to reflect the stage of understanding in their inquiry. According to this principle, less structured methods should be used in the early stages of the investigation and more structured methods should be employed in the later phases.

From entry to data collection to feedback researcher actions influence the working relationship with the respondent. Because the investigator's effectiveness depends directly on the quality of that relationship, every action should be taken with reflection upon its likely effects on this inter-

group relationship. Data collection methods surely have an impact on the relationship. The selection and ordering of methods therefore should maximize the benefit and minimize the damage to this relationship. As it turns out, the ordering of methods to enhance the relationship also parallels the ordering of methods to verify an investigator's growing precision in understanding the system. Moreover, proceeding from less to more structured methods also tends to produce more valid data (Alderfer, 1968; Alderfer and Brown, 1972).

Following from the proceeding principles, the preferred ordering of methods during data collection is:

1. unstructured observations including documents
offered by the respondent;
2. individual interviews;
3. group interviews, if they are used;
4. questionnaires, ideally with item content
determined organically from the results
of steps 1, 2, and 3; and
5. specific documents requested by the investigator,
if necessary.

Unstructured observation places minimal demands on the respondent-investigator relationship, can be begun during entry, and should be maintained through all phases of diagnosis. Individual interviews have a relationship building quality, if they are conducted competently, and, as a result, are probably the most essential tool of any data collection. Group interviews should be used more selectively, depending on whether the growing understanding of the system suggests that even greater insight about the or-

ganization can be attained by having members of the system who occupy similar roles talk together about their common fate. Questionnaires place stress on the respondent-researcher relationship; they tend to be impersonal, unilateral, and monotonous. They heighten the researcher's authority over the respondents. As a result they are used most effectively after more relationship building techniques have been employed. Moreover the development of an empathic questionnaire that speaks about organizational issues in the language of the organization tests more precisely evolving hypotheses about the system and produces more valid data than standardized instruments (Alderfer and Brown, 1972).

Soliciting any information beyond what is publicly available raises questions about confidentiality, which in turn has implications for the researcher-respondent relationship. Virtually all professions (e.g., law, medicine, clergy) have traditions of confidential relations between respondent and professional. Organizational research should be no different. Commitments to confidentiality that are maintained aid the development of trust between respondent and researcher. The investigator should take the initiative at all relevant data collection events to explain the nature of the confidentiality that applies and to answer questions that arise.

Archival information should be requested by the researcher only when necessary and only after there has been enough interaction to demonstrate the soundness of the respondent-researcher relationship. Understandings about confidentiality apply to archival information as well as to data collected by face-to-face methods. Archival information is not necessarily more or less valid than data from other sources; in highly politicized systems it

is as likely to have been "managed" to serve the interests of specific individuals or groups as any other data. And in a poorly functioning research relationship, the respondents can manage the use of archival information in the same way. But it does offer a source independent of the researcher and, for this reason, is desirable to have when it can provide further insight into topics relevant to the diagnosis.

Analyzing the data for feedback to the system begins with the formation of hypotheses during entry. Further steps are taken as researchers develop their liaison system, decide upon specific areas of inquiry for individual and group interviews, develop items for an empathic questionnaire, and seek certain archival information. In short, the data analysis process is well underway in advance of when this work becomes the primary task at the close of data collection; the issues around which feedback will focus have been (and should have been) determined by decisions during entry and data collection. As the time of analysis, however, researchers face a number of other decisions about presenting the content of their information to respondents. Especially important are choices with regard to the use of theory, the mix of qualitative and quantitative information, and the order in which issues are presented.

The primary orientation of the present approach to diagnosis is to understand a system on its own terms inductively, rather than to impose preconceived analyses or standardized instruments. In preparing data for feedback, researchers must decide how much emphasis to give to theoretical concepts for understanding the data. Under some circumstances understanding by the system may be enhanced by more extensive presentation of theory, and under other conditions respondent

understanding may be aided more by emphasis on concrete elements of the data. Use of theory depends on whether understanding will be aided by increasing or decreasing the number of explanations respondents have for their experience with the system. Introduction of theory by investigators tends to decrease the number of explanations respondents generate, and emphasis on concrete data tends to increase the number of points of view proposed by respondents.

Qualitative and quantitative data have compensating advantages and disadvantages, some of which are similar to the affects of how theory is used. The more qualitative data is used, the more respondents are encouraged to search for their own explanations, and the more quantitative data is used, the more the data itself is likely to shape conclusions about the system. Quotations and unstructured observations add richness, complexity, and uniqueness to any feedback presentation. They typically evoke respondent involvement and set off search processes as respondents attempt to determine why anyone would say or do what is reported. Questions about the generality of unique comments arise, and the use of quantitative information often provides answers.

People also have feelings about data concerning human affairs. For some (e.g., English teachers in a New England boarding school) the idea that human experience could be quantified at all might be an anathema. For others (e.g., engineers in a manufacturing plant) quantification might be synonymous with the term data. In advance of preparing the analysis the researchers will have an opportunity to learn respondent culture about data. This understanding should influence the balance of quantitative and qualitative data used in feedback. Be-

cause the purpose of feedback is not to change the respondent culture about data, the balance of quantitative and qualitative information used in feedback should reflect the respondent culture.

The issues presented in feedback vary in the degree of conflict they are likely to evoke. Like the process of entry and the methods of data collection, the order in which issues are presented in feedback has an influence on the respondent-researcher relationship, and this order should be designed to enhance the mutuality between the parties. As a general principle the more disturbing topics should be presented neither at the beginning nor at the end. The initial elements of feedback set the groundwork for the entire process and should have the effect of stabilizing the working relationship and building confidence for later, more difficult material. The final parts of feedback aim toward bringing closure to the experience and should allow the client to complete the work of coming to terms with the feedback. As a result the more problematic material should be covered during the middle phases of data presentation--after the startup dynamics have subsided and before termination has begun.

At the close of data collection the consultant has obtained and analyzed systematic data about the respondent system. Prior to the start of feedback there is a period of reduced interaction between respondent and researcher while the researcher prepares the data for feedback. This period of reduced contact will place some strain on the relationship because the respondent will be anxious to find out what the researcher has learned and may experience the reduced contact with the researcher as a deprivation. The role of the liaison system remains important during this time. Through that entity the researcher

can maintain contact with the organization, learn about new developments in the system, and keep the respondent informed about the progress with the data analysis. Perhaps most importantly, the liaison system can be a source of advice about the content and design of feedback. It is frequently desirable to conduct the first feedback with the liaison people, especially if they represent a microcosm of the entire system.

Feedback

The primary objective of feedback is to promote increased understanding of the client system by its members. Feedback typically consists of a series of meetings between the researcher and respondent during which the researcher presents the data analysis and the parties discuss the data and its interpretation. In carrying out feedback, researchers "re-enter" the system after having been away while they prepared the data analysis. Respondent reactions to the feedback and their behavior during meetings provide another source of data which may confirm or disconfirm the analyses provided in the feedback. Feedback also brings the diagnosis to completion and prepares for termination or additional work, including the possibility of planned change.

Effective feedback design relates the content of the feedback to the process by which the analysis is delivered to the system. The content of feedback is the data analysis prepared at the close of the data collection phase. The process of feedback is the composition of feedback meetings (i.e., who is present with whom), the ordering of the meetings (i.e., which groups receive information first, which second, etc.), the behavior of the system during feedback, and the behavior of the researchers within and between feedback meetings. The overall feedback design should bring together people who

are interested in the information presented and should bring them together in a way that is most likely to promote learning from the experience. Feedback is probably the period of maximum anxiety during the entire diagnosis. All the work that the investigator has done (or has failed to do) to develop effective working relationships with the system will come to fruition (or frustration) during feedback. If this work has been good enough, the system will be able to tolerate the tension of learning about itself.

The oldest and best known feedback design is built around the "family group" of supervisor and immediate subordinates (Bowers and Franklin, 1972). Conventionally structured organizations can be viewed as a series of interlocking family groups from top to bottom. When the content of the feedback pertains to issues found in family groups, then a feedback design should be built around these groups. However, the effectiveness of family group feedback depends heavily on their relationship between supervisor and subordinates. If that relationship is not strong enough to tolerate open disagreement without undermining the leader or punishing subordinates, then an alternative design should be used. The researcher may choose to work with the supervisor alone or to conduct a series of pairwise interventions with the supervisor and key subordinates in order to establish conditions for a full family group meeting.

If the feedback content pertains more to system-wide issues than to family group issues, if the organization is not conventionally structured, or if there are severely strained authority relations throughout the organization, then the feedback design should depart from the conventional family group model. The alternative design will be some version of the "peer group-intergroup" model (Alderfer and Holbrook, 1973). According to this design, people meet with

members of their own group as peers, who have no formal hierarchical differences among members, to discuss data relevant to their common concerns, and with members of other peer groups to meet in order to deal with data pertaining to the relationship between the groups. Joint group meetings in the peer-group intergroup process may involve bringing together groups that represent different hierarchical levels (e.g., branch managers and senior vice presidents), different functions (e.g., production and marketing), or different identities (e.g., blacks and whites).

The effectiveness of the peer group-intergroup model depends on managing effectively the tendencies toward ethnocentrism that exist in all groups. Groups exhibiting ethnocentric patterns attribute primarily positive traits to their own group and mainly negative properties to other groups. If ethnocentric dynamics are set-off by the feedback process, then the data and analysis will be rejected and little learning will occur. One means to guard against heightening ethnocentrism during feedback is to be sure that the peer groups address their internal conflicts during a first phase of the process (thereby reducing the likelihood that internal conflict will be projected onto outgroups) and to restrict the discussion of external group relations until the intergroup meeting (when both groups will be able to share their perceptions of the relationship between the groups). A second means is to use carefully balanced heterogeneous groups with clear instructions and support for dealing with similarities and differences between groups. A third step in managing these intergroup dynamics is to intervene in the interpersonal relationship between the leaders of the peer groups, whose behavior in the feedback sessions will have a significant impact on the degree of ethnocentrism demonstrated in the joint meeting.

Through entry and data collection the researcher has been primarily taking from the respondent system. Entry gives permission to conduct the diagnosis, and data collection provides information and the hope of understanding. Feedback is the time for the researcher to be giving to the system. At a minimum the researcher offers a picture of the system that is accurate and clear. If the diagnosis was undertaken with the expectation of planned change to follow, the feedback may include recommendations about how to proceed with next steps. If the diagnosis did not include the expectation of change, then recommendations are not appropriate. The feedback process should always leave the system with some record of the researcher's analysis. This record may be as much as a written report of the diagnosis or as little as the charts used for presenting information during the feedback meetings. These materials, however elaborate, provide concrete evidence that the diagnosis has been completed and the contract fulfilled.

In sum, the methodology of organizational diagnosis calls for the researcher to be competent in the conventional use of social science tools (observation, interviews, questionnaires and archives) and to possess a sophisticated theory and the related behavioral skills to enter, collect, and feedback information to complex multi-group systems. According to this approach, the investigator uses the techniques and theory of diagnosis to understand a system on its own terms, not to impose preconceived methods or conclusions. Each step in the diagnosis depends upon an effective working relationship between respondents and researchers. Every phase in the process builds upon the work of preceding phases. If properly executed, the methods described here are selfcorrecting because each phase provides opportunities

to discover and to alter limitations of the preceding phases. For systems who wish to learn, this methodology provides the opportunity if it is employed by investigators who have been thoroughly and appropriately trained.

Diagnosing Underbounded and Overbounded Systems

Organizational diagnosis is problematic because of the nature of interacting human systems. Although the method provides a self-correcting, increasingly precise understanding, researchers must nevertheless adjust their methods to the system's dynamics, or they will be unable to develop and maintain a viable working relationship. Thus, the sooner investigators correctly determine the basic dynamics of the system the better their subsequent understanding. A serious error in initial hypothesis formation regarding whether a system is underbounded or overbounded may compromise any future potential for successfully completing the diagnosis. Entry, data collection, and feedback procedures are each in part contingent on the boundary conditions of the system being studied.

Entry dynamics differ markedly in underbounded and overbounded systems. The diagnostician may make preliminary observations about any of the eleven variables differentiating system boundary conditions (cf., chapter 2, pp. 13-26). Entry itself is an "underbounding" transaction because it makes the system more permeable to certain aspects of its environment. Were it not for reactive effects of the system on the diagnostician, this opening of the system would increase the validity of initial observations. But the tendency of the transaction to heighten the diagnostician's anxiety may mean that the initial opportunity is less than fully utilized. Nevertheless certain variables are

especially prominent at entry, and their state may be easier to see if one is looking for them.

Boundary transactions usually heighten authority dynamics. Duff and Hollingshead (1968, p. 7), for example, note that when patients enter hospitals they must obtain permission from both medical and administrative authorities. This event suggests the possibility of conflict between these two major authorities. Should that conflict exist, other phenomena suggesting underbounded dynamics would be anticipated. In general, the process of entering an organization produces rich data relevant to the nature of authority in the system. The nature of this data will vary in underbounded and overbounded systems, and it will have different implications for carrying out the diagnosis.

In overbounded systems formal leaders are able to identify and speak for the system and subsystems under their authority. In underbounded systems the diagnostician may have difficulty determining who the relevant leaders and subsystems are. The table of organization, which is virtually synonymous with the formality of overbounded system, is usually unavailable or notably inaccurate in underbounded organizations. Leaders of overbounded systems, who decide to proceed with a diagnosis, may too readily decide that their subordinates "will" participate, and the investigator may have to take special initiatives to ensure free and informed choice (Argyris, 1970; Kahn and Mann, 1952). The researcher may advise leaders who speak for their systems that working the decision through with other, presumably lower ranking, members will produce higher commitment and eventually more valid data if the people decide to proceed. Depending on the leadership style prevalent in the unit, this may be more or less of an intervention into normally occurring dynamics.

Leaders of underbounded systems are typically difficult to locate and bring together for discussions about entry. Researchers working in underbounded systems face pressures to align themselves with one or more conflicting individuals or groups (Lewicki and Alderfer, 1973; Berg, 1977). Furthermore, the problem may be additionally complicated by the fact that investigators must rely on information provided by leaders whom they know in order to contact others with whom the leaders are in conflict. If the diagnostician does not quickly recognize the signs of an underbounded system, he or she may unwittingly become aligned with one party in key conflicts and thereby lose the possibility of being accepted by the other parties.

The entry process will take more energy in an underbounded system than in an overbounded system. It will be difficult to establish a communication system that is acceptable to all parties. The goals of the research will probably be hard to integrate with the system and subsystem goals. These dynamics and all others associated with underbounded and overbounded differences will be observable during entry. If diagnosticians are to achieve entry effectively they must adjust their behavior accordingly. It will be easier, for example, to form a liaison group of people representing the various organizational groups in an overbounded system than in an underbounded system. With an underbounded system the investigator may have to establish liaison through a series of interpersonal relationships with individuals representing subsystems, because divergent forces in the larger system are too great to allow for the formation of a liaison group.

Data collection also differs between underbounded and overbounded systems.

The basic dynamics of underbounded systems continue to affect the diagnostic process after entry has been completed. Compared to people from overbounded systems, the members of underbounded systems will be more difficult to locate, harder to contact, and less easy to meet. When it is possible to arrange data collection sessions in underbounded systems, the quality of those meetings will also reflect the system dynamics. Respondents are likely to be late or not to arrive at all, even if they have freely and explicitly agreed to participate. The effects of goal structure, role confusion, and energy dispersion will shape the physical and psychological assessability of underbounded system members to data collection.

When the data collection events do occur in underbounded systems, they are also likely to be influenced by the system dynamics. Respondents may have difficulty understanding the purpose of the work, and their answers (at least superficially) will seem more confusing to researchers. It will be difficult, and perhaps impossible, to find a common language by which to discuss the nature of the system with all members in the same way. Investigators are likely to feel like it is "impossible to understand" the nature of this organization. Data collection sessions in underbounded systems are likely to be interrupted even after they get underway. The short-term crisis orientation of these organizations is likely to be experienced as well as described during data collection. In one such instance, the manager of a community services center, who initially failed to appear for her interview, eventually had the interview interrupted when her boss called her to an emergency meeting to announce his resignation. Data collection in underbounded systems makes excessive energy demands on researchers just as entry does.

The data collection dynamics of overbounded systems also reflect the broader system conditions. In general, the data collection process is less demanding in overbounded systems than in underbounded systems, and the result is that much more social science knowledge is available from overbounded systems than from underbounded systems. Because data collection difficulties are less apparent in overbounded systems, researchers may be less vigilant about the ways that conventional methods may mislead them.

The ease of locating people and the sense of control over the data collection process may mask the diversity often suppressed by overbounded systems. The clearly stated goals, unitary authority system, well defined roles, predominantly positive affect, and single cognitive formation may keep the researcher from finding out what is actually happening to people in the system. The forces that facilitate an orderly data collection event do not necessarily guarantee the free flow of accurate information. In fact during the data collection in an overbounded system the investigator may have to work especially hard to encourage respondents to reduce the amount of control they exert on what they say and how they say it.

Despite the different problems with data collection in underbounded and overbounded systems, the continuum of methods described and analyzed above (pp. 3-11 to 3-13) applies to both kinds of settings. Variations in the dynamics of the two classes of systems does not alter the significance of relationship building for diagnosis, nor does it change the impact of the various kinds of instruments on the relationship building process. The effect of underbounded versus overbounded systems on the use of instruments

is most likely to determine how far along the continuum of instruments the investigator can proceed. In underbounded systems it will be difficult for researchers to proceed much beyond individual interviews in systematic data collection. Forces that make it difficult to contact and schedule sessions with individuals are only compounded when the task is to locate and assign groups of people. The lack of common language and the prevalence of confusion about why events happen make the construction of an organic questionnaire for use throughout the system especially problematic. In overbounded systems it is sometimes necessary to express the same concept with sets of words in order to take account of organization group differences. But this is possible because there is usually some means of translation between groups and all do share some common picture of their system. But the widespread confusion characteristic of underbounded systems usually means that it will not be possible to develop a single organic instrument that would be comprehensible to all units of the system. Such a statement about organic measures suggests that universal instruments would be even more inappropriate in underbounded systems than they are in overbounded systems. The general chaos characteristic of underbounded systems also makes it unlikely that orderly and systematic archival records would be available for scrutinizing by investigators. In sum, researchers in their quest for knowledge are unlikely to be able to fully escape the limited understanding of underbounded systems experienced by system members. Although the special training of researchers and their role relationship to the system should allow them to achieve better understanding than members, knowledge of underbounded systems will be less complete than that of overbounded systems.

Feedback dynamics also differ between underbounded and overbounded systems; effects may be observed in both the content and the process of the final phase of diagnosis. The consequences of system properties influence the use of theory, the management of problematic material, and the balance of quantitative versus qualitative information during feedback. System conditions also influence the likely consequences of family group versus peer group—intergroup designs. Preparation for the final sessions may also require different interventions in underbounded and overbounded systems in order to prepare for the stress associated with learning.

For overbounded systems the effect of data should be to increase the amount of divergent thinking by members. If the data collection processes worked, then the diagnostician should be reporting data that raises questions about the adequacy of single monolithic theory of the organization. In this kind of setting the diagnosis provides data to stimulate members to think more complexly about their system. Theory, if it is introduced at all by diagnostician, should be presented later rather than earlier in the feedback process. By comparison, in underbounded systems the respective roles of data and theory reverse. In underbounded systems confusion rather than clarity predominates, and the role of new data without accompanying theory is probably to add additional complexity. The role of theory in underbounded systems is to promote convergent thinking by members. If no theory at all exists in the system, then feedback should present one. If several theories exist, then feedback should provide a means to translate among them. During feedback with underbounded systems, theory should be presented early in the flow of content.

Underbounded systems differ from overbounded systems in the degree of

overt conflict that they manifest. While it is often hard to observe overt conflict in overbounded systems, underbounded systems are usually rife with clearly observable disputes. Feedback will alter the state of conflict in a system. In general, overbounded systems will be aided by increased conflict, while underbounded systems are aided more if feedback has the effect of resolving conflict or of supporting the hope that major disputes can be resolved in the foreseeable future. These propositions above suggest that feedback in underbounded systems should diminish conflict, while feedback in overbounded systems should enhance conflict. As a first approximation this deduction is correct, but by itself it is incomplete. The conflict resolution process often requires a period of regression, or heightening intensity, before resolution is possible (Walton, 1969). This phase assures all parties that their perspectives are expressed. It also indirectly communicates the cost of failing to change to the parties and may serve to motivate them to reduce rather than to escalate the conflict. In underbounded systems the period of regression is more sensitive to manage and may require moment-by-moment judgments by the diagnostician as to whether data that might excessively increase conflict should be introduced into feedback. With overbounded systems diagnostic data may be used more freely as a force to increase observable conflict.

The balance of quantitative and qualitative data during feedback also relates to system properties. For overbounded systems the use of qualitative data serves a similar purpose as delaying theory presentation. The richness may encourage people to expand their thinking and increase the number of alternatives they have for understanding their system. As a result one can

make generous use of qualitative data with overbounded systems, while at the same time taking account of the system's cultural norms about qualitative and quantitative data (cf., p. 3-14, above). An analogous point applies to underbounded systems, where the greater apparent certainty available from quantitative data may serve as a helpful antidote to their characteristic confusion. But again paradox intervenes. To the extent that valid quantitative data is available from underbounded systems, it will probably aid understanding, again subject to the cultural norms about data. But while more quantitative data might help underbounded systems, the likelihood of obtaining such information at feasible costs tends to be lower than in overbounded systems. Once again the centrifugal forces of the underbounded system work against the processes that might alter its basic pathology.

Several aspects of underbounded systems suggest that family group feedback may be more problematic than in overbounded systems. The nature of authority in underbounded systems is generally problematic; thus, any leader's authority is likely to be less clear than is desirable. Furthermore, it may be difficult to identify unambiguously who the members of a family group are; as a result the "group" formed for feedback may not be a group at all. Finally, underbounded systems tend to produce data that are systemwide in scope and implication. From a substantive viewpoint, therefore, family groups may also be the wrong units to which data should be fed back. The net effect of these considerations is that some version of the peer group—intergroup model is likely to be appropriate to most feedback situations in underbounded systems.

For overbounded systems, however, the choice between the two basic feedback designs turns both on the nature of the issues to be discussed and on the

state of the systems. If the primary issues to be discussed pertain to family group problems, family groups are well-defined, and authority relations can tolerate dispute without punishing subordinates or undermining leadership, then the family group design is appropriate for overbounded systems. On the other hand, if the issues are systemwide and/or the authority structure is highly punitive then the peer group intergroup design is most appropriate for feedback in overbounded systems.

The final difference between underbounded and overbounded systems pertains to the nature of intervention with key members of the system in advance of the actual feedback. Struggles among conflicting groups in underbounded systems may be so severe that in the judgment of the investigator no feedback design would be immune to uncontrolled disputes. Third party peacemaking among key leaders therefore may be essential in order to promote constructive response to the feedback sessions. In overbounded systems, pre-feedback interventions would be with individual leaders, rather than with pairwise relationships. The purpose of these interventions would be to coach people on how to be minimally punitive or defensive in the face of data that is likely to raise questions about the normal way of working.

In sum, the full diagnostic process unfolds quite differently in underbounded and overbounded systems, if the investigator's methodological choices are designed to be responsive to system dynamics. It is generally more time and energy consuming to diagnose underbounded systems than overbounded systems. Often the variables that aid in diagnosing overbounded systems (e.g., a viable and functioning authority system, a list of organization members, etc.) are simply not available in underbounded systems. Actions by diagnosticians that

aid learning in overbounded systems (e.g., promoting divergent thinking, increasing conflict) will inhibit understanding in underbounded systems. Because the diagnostic process is potentially self-corrective at each phase, diagnosticians have several opportunities to determine the nature of the system they study before feedback.

Intergroup Dynamics in Diagnosis

The "group relations" of organizational diagnosis pertain to at least three perspectives: (1) the researcher-system relationship, (2) the subsystem-to-subsystem relationships within the system being studied, and (3) the subsystem-to-subsystem relationships within the research team.

When investigators work with organizations, their role is that of *outsiders*. The relationship they establish with the system, the data they collect, and the learning that is possible from feedback are all in part shaped by the relationships between the groups represented by the investigators and those by the respondents. On one study the researchers eventually learned that their university affiliation represented a source of severe evaluation for the faculty of a New England boarding school, despite no intention to make such judgments by the investigators (Alderfer and Brown, 1975). In another project the research team was explicitly designed to include a black female, black male, white female, and white male in order to be sure the research team represented the major subgroups being studied (Alderfer, Alderfer, Tucker and Tucker, 1980).

Within the system the intergroup perspective provides a means for identifying the relevant units for study. Entry must be achieved with all groups relevant to

the study, and a liaison system for establishing and maintaining relationships with each group must be put into place. To the extent that it is feasible, data collection procedures should match the identity group memberships of the researchers with those of respondents. When this is possible, data collection transactions will be minimally shaped by whatever intergroup relationship exists between researcher and respondent. The diagnostic methodology, without taking account of the respective identity group memberships of researchers and respondents, is designed to work through the inside-outside intergroup tensions between the two parties. But when there are well-established historical relationships between the groups represented by investigators and respondents, then all the data that passes between these parties is further shaped by the nature of those historical relationships. Applying intergroup theory to the research transaction thus has implications for staffing research teams. Because it may not be possible to determine the optimal composition of a research team until after entry has been accomplished, the principle argues generally for a diverse research team, whose members may then be assigned to roles based on the nature of the system being studied.

As time passes and the research team establishes working relationships with system members, they will begin to empathize and identify with the people with whom they have the most sustained contact. This empathy and identification will be intensified the more that the researchers and respondents share common identity group memberships. But even if research team people do not have group memberships in common with their respondents, they will begin to "represent" their people in research team transactions. As time passes, the research team subgroup dynamics will begin to mirror the intergroup dynamics of the system being

studied. Depending on the skill and understanding of the team members—and especially the leadership—these parallel processes may become a major impedance to learning, if the team collapses into unresolvable conflicts analogous to what they find in the system, or they may become a source of insight unavailable through any other means.

The identity group memberships of the research team become especially important when the focus in diagnosis is on identity group issues in the system and when the organization is underbounded. The history, and therefore the potency, of identity group issues is much greater than that of organization group issues. If the diagnosis is to focus on identity group issues then the research team should be composed of people who represent the relevant identity groups and whose own personal knowledge and understanding appreciates their own and other groups' history. In an underbounded diagnosis, judgment will be necessary as to the priority given to identity group issues in the diagnosis. But data collection will produce more valid information on both organization and identity group issues if the research team includes people from the relevant identity groups.

The liaison system developed between the researcher and the system is the chief mechanism for dealing with the three facets of intergroup dynamics noted at the start of this section (cf. 3-30). In addition, (cf. pp. 3-3 to 3-20) the liaison system has a different role to play at each phase of the diagnostic process. While those roles are being executed, the intergroup dynamics of the liaison system also depend upon both the boundary relations of the organization as-a-whole and the characteristic intergroup patterns found in the respondent system and in the research team.

If the respondent system is severely underbounded, then it is unlikely that the liaison system can be a group. The underbounding forces from the respondent system will convince the investigators that the energy needed to form a group under such conditions is too great and/or the effects of several semi-group meetings (where all but a few key parties are present) are more harmful than helpful to the diagnostic enterprise. Under these conditions the liaison system becomes a series of interpersonal relationships between diagnostic team members and underbounded system members. It will not be easy to form even this kind of liaison system. The "price" paid by research team members will be to demonstrate commitment to their counterparts in the respondent system. As a result their empathy and identification with respondents will be higher than if a liaison group were possible, and the diagnostic team will feel the subunit conflict forcefully. There will be more potent forces to pull apart the diagnostic team if no liaison group is possible to form than if it is possible to form a liaison group. This represents a way in which the research team will be shaped to show processes parallel to the respondent system.

If the respondent system is severely overbounded, then it will be more feasible to develop a liaison group. As the group is being formed and afterwards, the group will reflect the overbounded dynamics of its own system in ways that may interfere with learning. The ethnocentric dynamics of overbounded systems are likely to affect how the liaison system relates to the research team and to shape how the subgroups of the liaison group relate to one another. Unless alternative structures and processes are utilized to counteract these forces, the liaison group will simply reproduce for the research team the ignorance the system has of itself. For example, we would expect the research people to be kept out of understanding important dynamics of the system because

they are non-members, and we would predict that higher ranking subgroups of the liaison system would dominate and control the information provided by lower ranking subgroups. Although the phenomena are different than in an underbounded system, the underlying dynamics are those of parallel processes in the liaison system that mirror the larger system dynamics.

Whether the parallel intergroup processes of underbounded and overbounded systems simply reproduce characteristic behaviors of the system or permit insight and understanding beyond reproduction depends upon the understanding and skill of the research team. The team's capacity both to permit and to reverse parallel dynamics determines whether learning is possible. Understanding the system's dynamics through parallel processes requires that the research team be aware of parallel dynamics when they occur and be able to change their own behavior in order to prevent the organization's dynamics from overwhelming the research task. Such skills take more than intellectual understanding. They require sophisticated training in observation and intervention with group and intergroup dynamics. In fact, we would suggest (and the reader may test for herself or himself) that without this experiential training, the concept of parallel processes and their impact on group and intergroup processes will seem illusive or even imaginary.

Intergroup theory also provides an interpretation for the standardized questionnaires used in so much of organizational research. These instruments are brought to systems by investigators and are typically administered on the (often unstated) assumption that they reflect universal concerns of people in systems. In this context, universal instruments are vehicles for communication across the insider-outsider boundary. When imposed by outsiders or employed insensitively by others, their use amounts to an ethnocentric act by investigators

toward their respondents. Empathic questionnaires, developed after a sustained period of mutual influence between researchers and respondents, eliminates the imposition. In its place the empathic instrument provides a vehicle showing that the researchers are a group who speak to system members on their own terms and who provide a vehicle that allows them to speak to each other as well.

CONCLUSION

The purposes of this chapter have been to analyze the process of organizational diagnosis and to relate these understandings to the phenomena to group and intergroup relations in living human systems.

The aim of organizational diagnosis is to produce learning about the system for its members. Diagnosis is a process consisting of three phases: entry, data collection, and feedback. Each phase has its own primary and secondary objectives that contribute to the work of the other phases. As a result, organizational diagnosis is a self-correcting process that permits the activities of subsequent phases to build upon the accomplishments of earlier periods and to correct limitations that arise from the inevitably incomplete work that must occur with dynamic living systems.

The process of organizational diagnosis is shaped by the condition of the system being studied. The effects of underbounded and overbounded organizations influence what will happen to diagnosticians as they attempt to proceed with entry, data collection, and feedback. Respondent system dynamics in part determine the consequences of using certain diagnostic techniques. The effect of the intersection between the diagnostic process and an understanding of system dynamics is to establish a series of contingencies that suggest which techniques in what order are most appropriate to particular system conditions.

Organizational diagnosis is an intergroup event when viewed from the perspective of intergroup theory. Thus the process of learning about the group and intergroup dynamics of a system also creates a set of dynamics,

which themselves both aid and impede the diagnostic process. The liaison system established to relate the researchers to the respondent system is the primary vehicle for using and managing the intergroup dynamics of the diagnostic process in the service of the diagnostic objectives. Intergroup theory used normatively to aid learning provides prescriptions for constructing an appropriate liaison system in any given situation and for aiding the diagnostic team in managing its own dynamics.

This chapter concludes the initial theoretical portion of this book. Material contained in chapters 2 and 3 provide theoretical responses to the issues and problems raised in chapter 1. Organizational diagnoses by group relations is a clinical methodology as this concept is defined in the opening chapter. The process is concerned with holism and interdependence among living human systems. It emphasizes individual, group, and organizational levels of analysis. It provides a perspective—the observation and analysis of parallel processes—for attending to the roles and behaviors of investigators as they do research. It is concerned with depth and subtlety in the meaning of organizations to their members and develops a methodological strategy to elicit those meanings rather than imposing preconceived concepts. The method demonstrates a concern with change; the process itself represents a change for the system and may be a precursor to planned change if the results suggest it, and the system is ready.

The material in chapters 2 and 3 present theory for understanding and acting in relation to intergroup relations in complex multi-group systems. Unlike the earliest clinical studies of organizations the perspective here is explicitly about intergroup relations. The many and rich suggestions con-

tained in the pioneering studies that organizational life, and the study of organizational life, is significantly shaped by intergroup dynamics now has a series of theoretical statements that can explain and predict the phenomena often unaccounted for in the earliest investigations.

The theory of phenomena in chapter 2, the theory of method in the early part of chapter 3, and connections between them in the latter portions of chapter 3 address the separation of theory from method that was characteristic of each of the other works on organizational diagnosis. The intergroup and boundary relations focus of the present work also brings a substantive orientation that was either largely overlooked or totally omitted by other approaches to organizational diagnosis.

In subsequent chapters we relate these theoretical issues to concrete techniques for conducting diagnoses (chapters 4, 5, and 6) and then demonstrate their application in a series of cases that reflect a range in the continuum from overbounded to underbounded systems (chapters 7, 8, 9, and 10).

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