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# WORKING
## *Conflict and Change*

Third Edition

# EIGHT
# CONFLICT IN THE
# PROFESSIONS

In Chapter 4 we dealt in general terms with the process of professionalization. In this chapter we turn our attention to individual professionals and their position in the workworld, their conflicts and the resolutions employed to those conflicts. We differentiate between three broad types of professionals: (1) professionals who are employed, or spend a large portion of their worklives, in formal organizations; (2) "free professionals" who are not employed in large organizations or, if they are, are not seriously constrained by those organizations; and (3) scientists. Although most modern scientists are found in organizations (and a few issues relating to them will be discussed in the section on professionals in organizations), they have been singled out for mainly separate discussion because of their increasing importance in our "post-industrial society," as well as for their unique occupational conflicts and methods of resolution.

## PROFESSIONALS IN ORGANIZATIONS

One of the most interesting and hotly debated issues in the sociology of occupations is the relationship between professionalization and bureaucratization. The most widely held position until recently declared that these two processes—and the resulting structures: professions and bureaucracies—are

at least to some degree antithetical. This antithesis surfaces most clearly in the argument that professionals, when employed in bureaucracies, are confronted with conflict because of the basic differences between these two normative systems.[1] However, both the classic work of Max Weber and a number of more recent studies have tended to cast doubt on this assumption.

### Weber on Professionalization and Bureaucratization

To Weber, bureaucratization and professionalization are complementary processes involved in the rationalization of the Western world.[2] Furthermore, the process of professionalization is seen by Weber as occurring largely within bureaucracies. In fact, the two processes are inseparably intertwined. Weber is generally concerned with the "bureaucratic-professional," that is, with the professional who exists within a bureaucracy and seeks to balance the two systems. To Weber, the priest[3] and the soldier are examples of bureaucratic-professionals.

What distinguishes Weber's thinking from that of American sociologists who saw an inevitable antithesis between professionalization and bureaucratization? One element is that Weber's thinking was embedded in his broader orientation toward the rationalization of the West.[4] When one is examining rationality, it is relatively easy to see that professionalization and bureaucratization are related causes, and consequences, of growing rationality. In contrast, American occupational sociologists tended to look at these processes in isolation and therefore failed to see their linkages.

A second factor in the difference between Weber and many American occupational sociologists is the disproportionate amount of attention the latter group gave to one specific occupation—the physician in private practice. It is our contention that this focus on a single, in many ways aberrant, occupation served to distort American thinking on the relationship between professionalization and bureaucratization. Unlike most occupations, the physician existed apart from formal organizations, at least between the late 1800s and the mid-1900s.[5] In those years physicians developed an ethic of autonomy and therefore found themselves in conflict with bureaucracies when they were em-

[1]See, for example, W.R. Scott, "Professionals in Organizations: Areas of Conflict," in Howard Vollmer and Donald Mills, eds., *Professionalization* (Englewood Cliffs, NJ: Prentice Hall, Inc., 1966), pp. 265-275.

[2]This section is derived from George Ritzer, "Professionalization, Bureaucratization, and Rationalization: The Views of Max Weber," *Social Forces*, 53 (1975), 627-634.

[3]Contemporary support for this is found in Vera's study of Catholic priests in which he found commitment to occupation positively correlated with commitment to the organization. See Hernan Vera, *Professionalization and Professionalism of Catholic Priests* (Gainesville, FL: University of Florida Press, 1982), p. 66.

[4]On this issue see, Arnold Eisen, "The Meanings and Confusions of Weberian 'Rationality'," *British Journal of Sociology*, 29 (1978), 57-70; Stephen Kalberg, "Max Weber's Types of Rationality," *American Journal of Sociology*, 85 (1980), 1145–1179; Donald Levine, "Rationality and Freedom: Weber and Beyond," *Sociological Inquiry*, 51 (1981), 5–25; Rogers Brubaker, *The Limits of Rationality: An Essay on the Social and Moral Thought of Max Weber* (London: George Allen and Unwin, 1984).

[5]Paul Starr, *The Social Transformation of American Medicine* (New York: Basic Books, 1982).

ployed in them. It is largely from this single case that occupational sociologists generalized about the antithesis between bureaucratization and professionalization. However, most professions never existed outside of bureaucracies and hence never faced the conflict experienced by physicians. As mentioned earlier, in recent years even physicians have found themselves employed in organizations, and the occupational sociologist is discovering that the medical profession can survive (although perhaps in an altered form) within bureaucracies.

Examples of the linking of professionalization and bureaucratization are frequently found in Weber's work. On a general level he argued that "bureaucratization of all domination very strongly furthers the development of 'rational-matter-of-factness' and the personality type of the professional expert."[6] In addition to such general statements, Weber also linked professionalization and bureaucratization in specific settings:

> [Military] Only the bureaucratic army structure allows for the development of the professional standing armies.[7]

> [Religion] The rise of a professional priesthood . . . must occur in some kind of compulsory organization.[8]

> [Religion] This worldly asceticism as a whole favors the breeding and exaltation of the professionalism needed by capitalism and bureaucracy.[9]

It is clear from these quotations, and the thrust of his work, that Weber saw professionalization and bureaucratization as complementary processes involved in the rationalization of the West.

### Professional-Bureaucratic Conflict

Although the issue of professionals in organizations was of some importance in Weber's era (the late 1800s and early 1900s), it has become even more important in recent years. Today, more and more professionals spend a greater proportion of their time in organizations, very often as employees of those organizations. Although Weber's views on the linkage between professionalization and bureaucratization are sound, it is nevertheless true that at least some professionals in at least some types of organizations experience conflicts. In general, bureaucracies are based on control from the top, while professions are premised on the idea of peer control. When bureaucratic superiors are not professionals, or are professionals who identify with the organization, there is at least the potential for conflict for the professionals in such an organization.

To get a better grasp of the nature and degree of this conflict we need to

[6]Max Weber, *Economy and Society* (Totowa, NJ: Bedminster Press, 1968), p. 998.
[7]Ibid., p. 981.
[8]Ibid., p. 1164.
[9]Ibid., p. 1200.

differentiate between three types of organizations in which professionals are found:[10]

*Professional organizations* are those in which at least 50 percent of the employees are professionals and the goals of the organization generally coincide with the goals of the professionals. There are two subtypes of professional organizations:

1.  *Autonomous professional organizations* are those in which the professionals are in control of the organization, including managerial positions. Examples include large law firms and medical clinics.
2.  *Heteronomous professional organizations* are professional organizations in which nonprofessionals—or professionals oriented to the needs of the organization rather than the profession—are in control. Examples include public schools and social work agencies.[11]

*Service organizations* are those in which professionals are provided with facilities but are neither employed by the organization nor under its control. A good example is the physician who, while affiliated with a hospital, is not employed by it.

*Nonprofessional organizations* are those in which professionals are in a small, subordinate subunit within the organization. The scientist (to be discussed extensively in the last section of this chapter), physician,[12] or lawyer[13] in industry exemplify this type.

Before we turn to a few examples of the conflict faced by professionals in some organizations, we need to return to the general issue of the relationship of professionals to bureaucracy—that is, to research suggesting that a greater degree of bureaucratization does not *necessarily* mean greater conflict for the professional.

Hall, for example, examined the degree of bureaucratization of three major work settings of professionals: autonomous professional organizations; heteronomous professional organizations; and the professional department that is part of a larger, nonprofessional organization.[14] The general assumption is that the professional department in the nonprofessional organization is the most bureaucratized and, as a result, the professional in this setting will experience the greatest conflict. However, Hall found that while autonomous professional organizations are the least bureaucratic, the differences between heteronomous professional organizations and professional departments are not great. In fact, professional departments are actually less bureaucratic than heteronomous professional organizations on some dimensions of bureaucra-

[10]Amitai Etzioni, ed., *The Semi-Professions and Their Organization* (New York: Free Press, 1969), pp. xii–xiii.

[11]Richard Hall, "Some Organizational Considerations in the Professional-Organizational Relationship," *Administrative Science Quarterly*, 12 (1967), 461–478.

[12]Vivienne Walters, "Company Doctors' Perceptions of and Responses to Conflicting Pressures from Labor and Management," *Social Problems*, 30 (1982), 1–12.

[13]For a discussion of the corporate lawyer and the role conflicts and ambiguities attendant to that role see, John D. Donnell, *The Corporate Counsel: A Role Study* (Bloomington, IN: Bureau of Business Research of the Graduate School of Business, Indiana University, 1970).

[14]Hall, "Some Organizational Considerations."  .

tization. On the basis of these findings Hall cautions us that we must not merely assume that because professionals are employed in professional departments or heteronomous professional organizations they will inevitably face conflict.

Gloria Engel selected one dimension of professionalization—professional autonomy—and related it to the degree of bureaucratization.[15] Seeking "to demonstrate empirically that it is not bureaucracy per se but the degree of bureaucracy that can limit professional autonomy,"[16] Engel was specifically concerned with the autonomy of physicians in their relationships with patients (clinical practice) and in clinical research. In reviewing the contradictory literature, she concluded that the highly bureaucratic organization does indeed act to limit the professional autonomy of physicians. Somewhat surprisingly, Engel also concluded that solo practice limits professional autonomy.

> The solo practitioner may thus be limited in, or suffer a loss of, autonomy, not as the result of any administrative restrictions, as might be experienced by those employed within the bureaucracy, but from not having ready access to the various physical facilities typically available in the complex organization.[17]

Thus she hypothesizes that it is the moderately bureaucratic organization that affords physicians more autonomy than either the nonbureaucratic or highly bureaucratic work setting.

To this end she compared doctors in three settings: solo or small group practice; "a privately owned, closed panel medical organization;" and a government medical organization. She found differences between autonomy in clinical practice and in clinical research. Physicians in moderately bureaucratic settings are more likely to have a high degree of autonomy in their clinical practice than those in the other two settings. But surprisingly, those in highly bureaucratic settings are most likely to have a high degree of professional autonomy in clinical research. In explaining this second finding Engel noted, "In the highly bureaucratic setting, administrative procedures are less formal, and fewer rules and regulations are imposed upon physicians who are interested in pursuing research activities."[18] This latter finding further muddies the relationship between professionalization and bureaucratization. It points to the fact that perhaps we cannot even discuss organizations as a whole in terms of their degree of bureaucratization. An organization may be highly bureaucratic on one factor (for example, clinical practice), moderately bureaucratic on a second (clinical research), and have a low degree of bureaucratization in terms of still a third factor.

A number of other studies have suggested that professionalization and bureaucratization are not necessarily irreconcilable. Some see them, in fact, as interdependent rather than antagonistic. Litwak points to the existence of a

[15]Gloria Engel, "The Effect of Bureaucracy on the Professional Authority of Physicians," *Journal of Health and Social Behavior,* 10 (1969), 30–41.

[16]Ibid., 31.

[17]Ibid., 34.

[18]Ibid., 37.

"professional bureaucracy," an organization that synthesizes the professional and bureaucratic models.[19] Similarly, Smigel terms what he finds in the Wall Street law firm a professional bureaucracy.[20] This phenomenon was also uncovered in Montagna's study of the Big Eight public accounting firms.[21] In these firms, accountants spend relatively little of their time on nonprofessional administrative duties: they are freer of this burden because most are involved in a *small* amount of administrative detail, thereby spreading it evenly among them. Broader decision making is centralized, removing this burden from most of the accountants. In addition, external rules formulated by professional associations were far more important than internal rules of the organization. Because of rotation through administrative positions, there are no full-time administrators who have vested interests in retaining and expanding the bureaucratic structure. The codification of formerly "mystical" procedures is seen as a threat to the accountant since: "The power of the expert disappears as soon as the area of uncertainty (professional judgment) can be translated into rules and programs."[22] Yet accountants have responded to even this threat by expanding into new areas of uncertainty. In these and other ways they have created for themselves a new type of organization, one which combines the professional and bureaucratic models.

Lengermann has further refined our knowledge on this issue in a study of certified public accountants.[23] He addressed himself to the paradox that although accountants thought that they had more autonomy in solo practice, the best of them sought careers in large accounting firms. In fact, Lengermann did find greater autonomy among accountants in solo practice than among those in large firms. However, when he controlled for level of position in the organization, that relationship ceased to exist. It is being in lower-level positions that accounts for lower autonomy, not the mere fact of being in an organization. Since, by virtue of their size, larger organizations have more lower-level positions, they offer less autonomy, at least to those on the bottom rungs of the organization.

Further contradicting the idea of a basic incompatability between professionalization and bureaucratization are those cases, many of which were the focus of Weber's analysis, in which the profession and the organization are virtually indistinguishable. One example is the clergy, in which the profession and the church hierarchy are very difficult to differentiate.[24] Supe-

[19]Eugene Litwak, "Models of Bureaucracy which Permit Conflict," *American Journal of Sociology,* 69 (1961), 182.

[20]Erwin Smigel, *The Wall Street Lawyer: Professional Organization Man?* (Bloomington, IN: Indiana University Press, 1969).

[21]Paul Montagna, "Professionalization and Bureaucratization in Large Professional Organizations," *American Journal of Sociology,* 74 (1968), 138–145.

[22]Ibid., 143.

[23]Joseph J. Lengermann, "Professional Autonomy in Organizations: The Case of CPA's," in Phyllis Stewart and Muriel Cantor, eds., *Varieties of Work Experience: The Social Control of Occupational Groups and Roles* (New York: Schenkman, 1974), pp. 173–187. For a somewhat different point of view on this issue see, James E. Sorenson and Thomas L. Sorenson, "The Conflict of Professionals in Bureaucratic Organizations," *Administrative Science Quarterly,* 19 (1974), 98–106; A. Hastings and C.R. Hinings, "Role Relations and Value Adaptation: A Study of the Professional Accountant in Industry," *Sociology,* 4 (1970), 353–366.

[24]Vera, *Professionalization and Professionalism of Catholic Priests.*

riors within the organization are at the same time professional peers. The other prime example is the military officer in the armed forces. Here again we have an at least partial fusion of organization and profession. Military officers are not likely to find themselves in an employer-employee relationship within the military. In fact, they are not likely to view the military as an employer, but rather as a means for efficiently coordinating their professional activities with those of their peers. Although most military officers experience little professional-bureaucratic conflict, exceptions are those officers who stand at the top of the military hierarchy. They are answerable to civilian officials representing the state. While the military often tries to reduce or eliminate civilian control, there usually remains at least some strain between the two. Without the strain, the military might emerge completely autonomous, and such an outcome would have enormous implications for society.[25]

Bucher and Stelling attack the assumption that organizations in which professionals are employed are bureaucratic.[26] By starting with this assumption, most researchers are led to the idea of an inevitable conflict between professional and bureaucratic norms. Yet when professionals control an organization (such as in some types of hospitals), Bucher and Stelling contend that they create an organization that is neither bureaucratic nor professional. They believe that such an organization has the following characteristics:

1. Professionals negotiate with significant others in their organization to create their own roles and do not fit neatly into the established roles in the organization.
2. Professionals tend to cluster within an organization; this leads to spontaneous internal differentiation rather than differentiation legislated from the top of the organization.
3. The various professionals in an organization have different interests, goals, and so forth; this leads to internal competition and conflict.
4. Through political means the different professionals seek to affect the policies and goals of the organization.
5. Power is constantly shifting rather than located in a particular office.

In a sense then, there is no irreconcilability between professionalization and bureaucratization, since professionals in organization can—in at least some cases—create an entirely different kind of organization that conforms to neither of these models.

Building on the work of Bucher and Stelling and others, Benson[27] offers

[25]Bengt Abrahamsson, *Military Professionalization and Professional Power* (Beverly Hills, CA: Sage Publications, 1972). See also, Jacques van Doorn, "The Officer Corps: A Fusion of Profession and Organization," *European Journal of Sociology*, 6 (1965), 262–265.

[26]Rue Bucher and Joan Stelling, "Characteristics of Professional Organizations," *Journal of Health and Social Behavior*, 10 (1969), 3–15. A number of studies point in essentially the same direction, including Joan Stelling and Rue Bucher, "Autonomy and Monitoring in Hospital Wards," *Sociological Quarterly*, 13 (1972), 431–46; Celia Davis, "Professionals in Organizations: Some Preliminary Observations on Hospital Consultants," *The Sociological Review*, 20 (1972), 553–567; Stephen Green, "Professional/Bureaucratic Conflict: The Case of the Medical Profession in the National Health Service," *The Sociological Review*, 23 (1975), 121–141.

[27]J. Kenneth Benson, "The Analysis of Bureaucratic-Professional Conflict: Functional Versus Dialectical Approaches," *Sociological Quarterly*, 14 (1973), 376–394.

what he calls a "dialectical approach" to the study of professionals in organizations. Here, he seeks to integrate the earlier view of inevitable conflict with the newer view of the relationship between professional and organization as a negotiated reality. He begins with the assumption that every organization contains fundamental contradictions. In this context, the relationship between the participants is subject to political negotiations. In seeking to understand this process of negotiation, we must understand the commodities each party uses as negotiating items, including money, prestige, authority, and autonomy. We must understand the base of power of each of the parties involved in the negotiation, their strategies, and the factors that serve to determine the outcome of the negotiation. If we do uncover conflict among professionals and the organization, it may well be tied to other conflicts endemic to the organization, including conflict among diverse interest groups, between the central administrative elite and various subunits, among specific occupations or segments within occupations, or between the organization and the broader public.

Conflict between professionals and organizations may be brought to the fore by a variety of events. Increasing specialization may be seen by some groups as in their best interests, while others may be threatened by it. Similar conflict within the organization may be produced by changes in the role of the organization, technological change, centralization, or rigidification of organizational rules.

Benson's basic point is that the bureaucratic-professional conflict that does exist is part of the ongoing dialectic of organizational life. Organizations are being reconstructed from day to day by their participants. Those participants are constantly negotiating with each other; as a result there will be times when bureaucratic-professional conflict will arise, although there is no necessary contradiction between professionals and organizations. Such a position moves us away from the simple idea that professionals and organizations are structurally incompatible and toward the examination of conditions that may give rise to that conflict. It also places bureaucratic-professional relations within the broader context of ongoing life within organizations.[28]

We will now turn to a few examples of conflicts that *do* exist between bureaucracies and professionals. Our goal will be to isolate some of the conditions that give rise to this conflict.

*Company doctors.*    Walters has examined the conflicts facing Canadian doctors who are employees of companies.[29] She identified four areas of conflict for the company physician. First, there is the issue of absenteeism. The management of companies expects "company doctors to prevent unnecessary absence from work and to return the worker, at least to light duties, as soon as possible."[30] The workers, on the other hand, are not anxious to return to work, even to lighter duties. In general, company doctors seem to adopt the

[28]Robert Perrucci, et al., "Whistle-Blowing: Professionals' Resistance to Organizational Authority," *Social Problems*, 28 (1980), 149–164.

[29]Vivienne Walters, "Company Doctors' Perceptions of and Responses to Conflicting Pressures from Labor and Management."

[30]Ibid., 2.

management position by, for example, trying to catch malingering workers and by coming to view a return to work as therapeutic for the worker.

The second area of conflict is over preemployment physicals designed to determine whether potential employees are healthy enough to be hired. Basically, the doctors are pressed by the company to "err on the side of safety by certifying doubtful cases as unfit to work" and to "identify with their companies and try to protect them from 'bad risks.' "[31] This conflicts with basic medical practice. Futhermore, it was still possible for management to choose not to accept a doctor's recommendation. People who showed signs of becoming dedicated workers might be hired even though the physician expressed health reservations about them. In times of a shortage of labor, management might also be more inclined to ignore a doctor's advice not to hire someone.

A third area of conflict is workers' compensation for work-related illnesses and injuries. It is in the interest of workers to have as many health problems as possible classified as eligible for workers' compensation, but the antithetical interests of management are:

> . . . to keep assessments as low as possible, to resist an extension of the range of illnesses subject to compensation, and to oppose any case where the occupational basis of worker's illness or disability is open to doubt. In consequence, this has been an area of bitter and lengthy disputes between workers and management.[32]

Needless to say, it is a bitter dispute in which company doctors find themselves in the middle.

Finally, there is the issue of health hazards in the workplace. The conflict here is over the workers' and union's demand that *all* health hazards be removed from the workplace and the management's view that workplaces cannot be totally free of health risks. Thus the management objective is to set an "acceptable" level of risk and to provide employees with needed health equipment. But from the worker-union point of view there is no such thing as an acceptable level of risk. Once again, physicians find themselves caught in the middle of this dispute.

In general, Walters found that the autonomy of physicians was limited by their employing organization. In the conflicts discussed above, it was management that had the greatest power, and physicians were therefore biased in the direction of their employers' priorities. As a result, company doctors often serve to buttress management control over workers.

*Military psychiatrists.* Psychiatrists are supposed to be concerned with the mental health of their patients but patients are secondary for military psychiatrists—they are engaged primarily in providing services to the military.[33] Thus they are merely advisors on such matters as discharges, special

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[31]Ibid., 4.

[32]Ibid., 6.

[33]Arlene K. Daniels, "The Captive Professional: Bureaucratic Limitations in the Practice of Military Psychiatry," *Journal of Health and Social Behavior,* 10 (1969), 255-265. See also, Arlene K. Daniels, "Military Psychiatry: The Emergence of a Subspecialty," in Eliot Freidson and Judith Lorber, eds., *Medical Men and Their Work* (Chicago: Aldine/Atherton, 1972), pp. 145–162.

duty for soldiers, and military legal matters. Moreover, they are not even free to make diagnoses on the basis of their professional judgment. They are constrained by a variety of military rules (for example, rules guiding separation from the military) that have an important impact on the kind of diagnosis they make. They are often asked to justify the decisions of a commanding officer or a military court, and the need for such justifications affects the kinds of diagnoses they make. In effect, these constraints transform them from counselors to control agents within the military. In addition to these constant constraints upon them, there are a variety of shifting or variable contingencies that affect their action. One is the "climate of opinion" at any given time. If, for example, there is a manpower crisis in the military, there will be a great deal of pressure on military psychiatrists to be very conservative in classifying soldiers as unfit. Because of logistics, psychiatrists are generally prevented from making recommendations that would involve transfers of patients to distant places. Finally, the character of a commanding officer at any given time has a great effect on the practice of military psychiatry. Some commanding officers place greater restraints on the activity of psychiatrists than do others, depending on how they interpret military regulations. In short, the psychiatrist who works in the military is a "captive professional."

*Military chaplains.*    Military chaplains are in a position similar to that of military psychiatrists. They are, in a sense, members of two professions: the professional clergy and the military. As professional clergy, chaplains are supposed to preach and act in accord with the notion of universal brotherhood. Yet as members of the military they are asked to contribute to an organization whose goal is to develop itself into the most effective destructive force possible. Like military psychiatrists, chaplains generally must be more responsive to the immediate pressures of the military than the more distant professional expectations. Although chaplains are often unwilling to admit the existence of this stress, or to the fact that they are generally directed by military requirements, their actions indicate that their primary orientation while in the military is to the needs and demands of that organization.[34]

*Industrial scientists.*    In the case of military psychiatrists and military chaplains, we discussed general and pervasive bureaucratic-professional conflict. In the case of industrial scientists, we will examine some of the more specific forms taken by this conflict. Kornhauser points out four areas of conflict between industrial scientists and their employing organizations.[35] First, there is the issue of recruitment. "In most government establishments (especially military) and in commercial enterprises . . . personnel matters tend to be controlled by an administration that represents the organization rather than the profession."[36] This stands in opposition to the professional notion that only a peer can evaluate competence of another professional. Many or-

[34]Gordon Zahn, *The Military Chaplaincy: A Study of Role Tension in the Royal Air Force* (Toronto: University of Toronto Press, 1969).

[35]William Kornhauser, *Scientists in Industry: Conflict and Accommodation* (Los Angeles: University of California Press, 1962).

[36]Ibid., p. 45.

ganizations, furthermore, seek to hire lesser scientists who might ultimately become administrators. Professionals, on the other hand, would prefer to hire the best qualified scientists without regard to their managerial potential. Second, there is the problem of how the professional scientist's work is to be organized. Organizations tend to prefer "task forces" made up of professionals from various disciplines to work on a specific problem; scientists are likely to prefer groups of individuals from the same discipline. Third, there is the question of who should lead a professional subgroup within an organization. Professional scientists would like their manager to be the most scientifically qualified individual, while organizations tend to seek administrators who exhibit managerial rather than scientific qualities. Finally, there is the conflict between the professional notion of free and total communication and the organization's desire for secrecy. If scientists in an organization make a discovery, they would like it published so that all those in the profession may see and use their contribution. The organization, however, would prefer that these discoveries be kept secret so that the benefits belong exclusively to the organization.

An organization uses monetary rewards and is generally incapable of rewarding professionals with the symbols they desire. Thus professional scientists can rarely find bureaucratic life totally rewarding. They must operate on two levels, simultaneously trying to gain economic rewards from the organization and seeking symbolic recognition from their professional colleagues. The organization, however, acts in a number of ways to prevent the achievement of professional recognition. One example is the openness-versus-secrecy conflict discussed above. Another problem is that an organization pays professionals to solve problems of immediate importance to it, not esoteric questions that will bring no recognizable payoff. Thus scientists must reconcile what they feel needs to be researched with the more insistent demands of the organization. In such a situation, the organization will frequently discourage or forbid independent research; and if they choose to stay in the organization, professional scientists must then work on such research on their own time. This strain is what Kornhauser has called the conflict between pure and applied research. The American Association for the Advancement of Science has noted that "what is essential to the proper growth of science is often in conflict with the conditions of its service to military and political and, it may be added, industrial affairs."[37]

*Electronic data processing personnel.*    Danziger[38] studied a group he considered a profession (or at least an emergent profession): electronic data-processing personnel (EDP) within American local governments. EDP personnel (for example, computer programmers and system analysts) were found to have constructed a "skill bureaucracy" with three distinguishing characteristics: "(1) it is an organizational subunit which provides services to particular clients; (2) it has a relative monopoly within certain areas of both services provision and technical expertise; and (3) its members have an external,

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[37]Ibid., p. 18.

[38]James N. Danziger, "The 'Skill Bureaucracy' and Intraorganizational Control," *Sociology of Work and Occupations*, 6 (1979), 204–226.

professionalized reference group."[39] Danziger found that EDP personnel constructed a skill bureaucracy that had considerable autonomy within the organization and were even seeking to expand its domain. Despite the lack of significant external control, the EDP unit was found to adequately serve the organization. However, because the EDP unit is primarily interested in achieving its own objectives, it does not provide the larger organization with as many benefits as it might. Danziger foresees a time in the near future when conflict between EDP units and the larger organization will escalate. The organization will seek to get more gains from its investment in EDP and it will seek to more rationally manage such a department. Such efforts are likely to be resisted by EDP personnel who have become accustomed to the autonomy offered by their "skill bureaucracy."

In sum, we conclude that while professionalization and bureaucratization are not necessarily incompatible, the fact remains that in at least some situations bureaucratic-professional conflict does exist. Given this reality, we turn now to a discussion of the methods employed in coping with this conflict. Our first concern is with the actions an employing organization may take to cope with the conflict.

### Coping With Bureaucratic-Professional Conflict: The Employing Organization

It is clear that in at least some cases the conflict between professionals and organizations can never be completely eliminated. In fact it may well be that this conflict, like many others, has a variety of functions for both professionals and organizations. There are, however, a number of steps an organization can take to reduce the dysfunctional aspects of the conflict.

Barber makes some suggestions on ways an organization can accommodate its professionals.[40] For example, it can place them into separate substructures where they can perform their specialized activities relatively free of organizational constraints. Or it can set up a separate authority structure for them with the head of the professional group being a qualified professional. Barber also suggests a separate reward structure that would enable them to achieve professional recognition while continuing to serve the organization. Included in this separate reward structure would be the opportunity to attend professional meetings, salary increases based strictly on professional accomplishments, and time off with pay to further professional education. Yet although these changes would help alleviate the conflict, they would not eliminate the inherent problems. Even if professionals had separate substructures, they still would not possess the authority or organizational knowledge to have control over their clients. Such a separation, furthermore, would enhance the segregation of professionals within the organization and would do little to increase their authority. The suborganization, even with a professional head, would ultimately be responsible to higher-level bureaucrats. Professional

[39]Ibid., 206.

[40]Bernard Barber, "Some Problems in the Sociology of the Professions," in Kenneth Lynn, *Professions in America* (Boston: Beacon Press, 1967), pp. 15–34.

heads[41] would find themselves in an extremely difficult position: inevitably they would have to decide whether they were primarily professionals or bureaucrats, and whatever choice they made would alienate some segment of the organization and reduce their effectiveness.

*The dual ladder.*    The dual ladder is one of the preferred methods that employing organizations use to resolve professional-bureaucratic conflict. In all organizations, there is a hierarchy of statuses leading to positions of increasing authority. Professionals, because of the nature of their occupations, are ordinarily barred from this ladder, a condition that has led some organizations to set up a second ladder. This ladder also has a hierarchy of positions, but these do not carry with them increasing authority. Instead, they carry greater salaries, status, autonomy, or responsibility. Organizations realize that if professionals were to move up the traditional ladder, they would be moving out of the area of their expertise; the second ladder allows them to be rewarded and experience some mobility *within* their professional area.

Although there has been widespread adoption of the dual ladder, Goldner and Ritti contend that—at least as far as engineers are concerned[42]—this idea is based on the false assumption that professionals are interested in professional rewards rather than power. Goldner and Ritti found that engineers do want power and that they identify with their employing organization rather than the profession. Further, the professional ladder at best can only resolve the conflict (if one exists) between individual professionals and their employing organizations; it cannot resolve the basic conflict between the profession as an institution and the employing organization.

If the professional ladder does not function the way it is supposed to, what then is its function? Goldner and Ritti note that it performs the function of "cooling out" professionals in organizations; it keeps them in the organization and productive even though they cannot aspire to the normal definition of success in organizations—power. But "cooling out" generally occurs after the fact, as when an individual has been fleeced by a confidence man. In organizations, the construction of a dual ladder allows professionals to be "cooled out" even before they have actually failed in their quest for power (as most will). The organization has redefined success for the professional from increasing authority to moving up the professional ladder.

The professional ladder might even be viewed as a face-saving device for professionals. Goldner and Ritti contend that organizations may even find it functional to define nonprofessions as professions, and in so doing continue to get high performance from employees, even though they have failed in their quest for power. For example, if older salespersons have failed to achieve power, the organization can keep them productive by defining them as professionals. By the same token, individuals in certain occupations would

[41]David Luecke, "The Professional as Organizational Leader," *Administrative Science Quarterly*, 18 (1973), 86–94.

[42]Fred Goldner and R.R. Ritti, "Professionalization as Career Immobility," *American Journal of Sociology*, 73 (1967), 489–502.

find it functional to define themselves as professionals since this "explains" why they have not succeeded in terms of their search for power.

*Segregation of professionals.*    Hammond and Mitchell's study of the campus ministry suggests a radical solution to the professional-bureaucratic conflict.[43] The Protestant Church handles radical ministers by sending them to college campuses where their ideology is accepted and where it does not affect the church-going public. Generalizing from this example we can see how organizations can reduce the conflict between themselves and professionals by housing them in a physically separate structure. The only contact between the organization and its professionals is then through the leaders of the professional suborganization. Although this will ease the conflict for most of the professionals, it will not eliminate the basic conflict between the two groups.

Although it can never solve the problem, the organization must seek to maximize the creativity of its professionals while minimizing its control over them, for if it imposes too much control, it will stifle the creativity it seeks. Nevertheless, organizations have goals and must be sure that their professionals are contributing to the achievement of those goals: they cannot allow professionals to operate totally independently. The organization must set broad limits for professionals and then allow them to operate autonomously within these limits. Most organizations find it difficult to grant professionals such autonomy, but it is clear that they must if they are to progress as much as they would like.

### Coping With Bureaucratic-Professional Conflict: Professionals

Just as the organization can take steps to reduce this conflict, professions and individual professionals can also act to resolve the dilemma. Vollmer and Mills suggest that one means for professionals is to "sell out" to the organization by becoming primarily bureaucrats.[44] This would certainly eliminate the conflict, but few professionals are willing to take this step and few organizations would like to see it happen.

*Resolutions open to the professions.*    Professional schools can offer courses on the structure and operation of complex organizations in an effort to prepare new professionals for life in such structures. They will then know what to expect and, perhaps, how to handle some of the dilemmas that will confront them. Professional schools often continue to socialize their students as if they were going to become free professionals. But most new professionals will work in organizations, and they need to be prepared for the possibility of conflict.

The profession can restructure itself so that there are symbolic rewards for those who work in organizations. For example, it could offer greater recognition for applied research by, for example, accepting more of such papers

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[43]Phillip G. Hammond and Robert E. Mitchell, "Segmentation of Radicalism: The Case of the Protestant Campus Minister," *American Journal of Sociology,* 71 (1965), 133–143.

[44]Vollmer and Mills, *Professionalization,* p. 276.

for presentation at national meetings and for publication in professional journals. Those professionals who achieve high status in their employing organization might also receive some recognition from their professional association. These kinds of changes are occurring within some professions, particularly in science and engineering. For example, the professional administrator's position is beginning to be viewed as a "valued activity" and is achieving high status in professional associations. Further,

> in the scientific society, journals and conferences in applied science have been organized; permanent sections of the society have been established in applied areas; employment clearing houses have been created to facilitate contacts of industrial and governmental employers with scientists; and large grants have been solicited from industry to finance society activities.[45]

*Resolutions open to individual professionals.*    There are also mechanisms to reduce professional-bureaucratic conflict available to individual professionals. For one thing, before taking a position professionals can select the setting (for example, highly bureaucratic, autonomous) that is most comfortable for them. In a study of aerospace scientists and engineers, Miller found that conflict was minimized because professionals tended to find their way into the setting best suited to them.[46] Thus self-selection, as well as careful organizational selection, helps prevent the development of bureaucratic-professional conflict.

It has generally been assumed that professionals in organizations must either identify with the organization or the profession. Gouldner (following Merton) calls those who identify with the profession cosmopolitans and those who identify with the employing organization locals.[47] Yet there is no reason to assume that these are the only possibilities.[48] Reissman, for example, identifies four types of orientation: the functional bureaucrat who identifies with the profession and not organization; the job bureaucrat who identifies with employing organization and not profession; the specialist bureaucrat who identifies with both; and the service bureaucrat who identifies with neither.[49] The most important type for our purpose is the specialist bureaucrat, or the type Glaser has called the "local-cosmopolitan."[50] Much of the conflict is

[45]Kornhauser, *Scientists in Industry*, p. 198.

[46]George Miller, "Aerospace Scientists and Engineers: Some Organizational Considerations," in Phyllis Stewart and Muriel Cantor, eds., *Varieties of Work Experience: The Social Control of Occupational Groups and Roles*, pp. 114–127.

[47]Alvin Gouldner, "Cosmopolitans and Locals: Toward an Analysis of Latent Social Roles-I," *Administrative Science Quarterly*, 2 (1957), 281–306.

[48]Paul J. Baker and Mary Zey-Ferrell, "Local and Cosmopolitan Orientations of Faculty: Implications for Teaching," *Teaching Sociology*, 12 (1984), 82–106.

[49]Leonard Reissman, "A Study of Role Conceptions in Bureaucracy," *Social Forces*, 27 (1949), 305–310; Loether calls those who identify with neither profession nor organization "indifferents;" see, Herman J. Loether, "Organizational Context and the Professorial Role," in Phyllis L. Stewart and Muriel G. Cantor, *Varieties of Work* (Beverly Hills, CA: Sage, 1982), pp. 137–152.

[50]Barney Glaser, "The Local-Cosmopolitan Scientist," *American Journal of Sociology*, 69 (1962), 249–259. For a somewhat different usage of this concept see, Albert I. Goldberg, "The Relevance of Cosmopolitan/Local Orientations to Professional Values and Behavior," *Sociology of Work and Occupations*, 3 (1976), 331–356.

resolved by those who can identify with *both* occupation and organization.

A much more radical alternative open to professionals is to abandon professional associations for the much more militant labor unions. Semiprofessionals (for example, teachers) have long been attracted to the benefits of unionization. In the more established professions, it is among college professors that unions have made the greatest inroads.[51] However, with the recession in college teaching in the 1970s and 1980s, there has been a decline in interest in unionization and collective bargaining.[52]

### Benign Conflict?

It may well be that the conflict between professionals and organizations is not undesirable and hence should not be eliminated. Kornhauser notes that "the tension between the autonomy and integration of professional groups, production groups, and other participants tends to summon a more effective structure than is attained where they are isolated from one another or where one absorbs the other."[53] With little research on this point, we need more comparative studies of organizations in which accommodation has and has not been attempted. Nonetheless this notion is in line with sociological work that emphasizes the functions of social conflict. From this work, one might hypothesize that the conflict makes for unity in the professional subgroup. One might also hypothesize that the conflict leads to greater feedback between pure and applied research. In any event, it must not be concluded that the conflict between professionals and their employing nonprofessional organizations is necessarily dysfunctional.

## FREE PROFESSIONALS

The major free professionals have been physicians and lawyers in private practice. Although the trend is away from free professionals and toward organizational involvement,[54] there remains a significant proportion in some professions who are still largely free of organizational control. Free of organizational constraints, they are also free of most of the problems faced by professionals in organizations. They retain to a degree both their autonomy and their commitment to their occupation. They are, however, faced with a series of rather distinctive problems. For free professionals, these problems primarily revolve around their relationships with clients.

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[51]Gus Tyler, "The Faculty Joins the Proletariat," *Change* (Winter, 1971–1972), 40–55.

[52]Loether, "Organizational Context and the Professorial Role."

[53]Kornhauser, *Scientists in Industry*, p. 198.

[54]The same trend, but even more pronounced, is occurring in England; see, D.G. Gill and G.W. Horobin, "Doctors, Patients and the State: Relationships and Decision-Making," *The Sociological Review*, 20 (1972), 505–520.

## Conflict With Clients

Although conflict with clients is characteristic of free professionals and threats to autonomy are characteristic among professionals in nonprofessional organizations, the distinction is not as clear as we have tried to make it. First, free professionals are also confronted with threats to their autonomy. While they retain their freedom, free professionals are unable to avail themselves of the resources an organization can provide. This lack of resources constitutes a threat to their autonomy.[55] They may, for example, lack the equipment they need, or they may have to handle so much detail work that they are left with less time to work on professional matters. Second, just as free professionals may experience threats to their autonomy, professionals in organizations are likely to experience conflict with clients.[56] Third, many professionals fall into both categories. Such professionals would experience conflict with clients primarily in private practice and threats to autonomy while working in an organization. Fourth, while professionals employed in nonprofessional organizations also have clients,[57] it is not clear exactly who they are—individuals in need of professional services or the employing organization. In spite of these ambiguities, we continue to adhere to the general view that professionals in nonprofessional organizations are characteristically confronted with normative conflict (threats to their autonomy), while the distinguishing conflict for free professionals is with their clients.

*Physicians and patients.*    In Freidson's view, the struggle between patients and physicians seems to have occurred throughout history,[58] a conflict inherent in the very structure of their relationship. Here is the way Freidson describes it:

> The basic doctor-patient relationship may be seen as a conflict of perspectives and a struggle for control over services. From their perspective, patients believe they need a particular service; from theirs, the physicians seek to employ their own criteria of need and propriety.[59]

Freidson found that physicians talked incessantly about the problems they had with patients."[60]

The privacy of the relationship between physician and patient makes it generally free of external constraints. This lack of formalized rules of interac-

[55]Eliot Freidson, *The Profession of Medicine* (New York: Dodd, Mead, 1970).

[56]Eliot Freidson, *Doctoring Together: A Study of Professional Social Control* (New York: Elsevier, 1975); Eliot Freidson, *Patients' Views of Medical Practice* (Chicago: University of Chicago Press, 1980; originally published in 1961).

[57]Arlene Kaplan Daniels, "Advisory and Coercive Functions in Psychiatry," *Sociology of Work and Occupations,* 2 (1975), 55–78.

[58]Eliot Freidson, "Dilemmas in the Doctor/Patient Relationship," in Caroline Cox and Adrianne Mead, eds., *A Sociology of Medical Practice* (London: Collier-Macmillan, 1975), pp. 285–292.

[59]Freidson, *Doctoring Together,* p. 45.

[60]Ibid., p. 48.

tion makes conflict much more likely. We must also realize that physicians and patients bring very different worlds of experience to their interaction and that they have different reference groups. In the interaction, patients desire highly personalized treatment, but physicians, for the sake of efficiency as well as their own peace of mind, usually deal with patients impersonally.[61] That is, they treat patients as types of disease, rather than as individuals. Whatever form the interaction takes, patients will have doubts about physicians' diagnoses, decisions, and advice. Finally, it should be pointed out that the ever-present possibility of crisis makes the doctor-patient relationship fraught with conflict. The patients' health can decline precipitously, or the treatments prescribed by physicians can have some unfortunate effects. These crises threaten to plunge even the most harmonious doctor-patient relationship into conflict.

Although patients certainly contribute to conflict with physicians, Bloor and Horobin place much of the blame for the conflict on physicians, arguing that they place patients in a "double bind."[62] On the one hand, doctors make it clear that they dislike trivial visits from patients. By sanctioning those who take up their time with unimportant matters, physicians are encouraging patients to assess their own illness in order to be sure a visit is really necessary. This leads to increasing knowledge about health matters, making patients more capable of self-diagnosis. Thus, when they do visit doctors, they are more likely to question their judgments. It is here that the double bind occurs, since physicians do not want patients to question their judgments. Yet in pressing patients to diagnose their own ailments before visiting the office, doctors are creating the kind of questioning clients they so dislike.

Although there is a tendency to blame physicians for the strain in the doctor-patient relationship, it is clear that there are other factors involved in the conflict. A recent study by David Hughes of the relationship between physicians and cardiology patients in England has clarified one source of this strain—the inability of patients to adequately explain their problems to physicians.[63] Physicians enter interactions with patients with preconceived ideas about information that is relevant, in this case whether or not there is a cardiological problem. Patients, however, are not sure what is relevant information. The need for physicians to get important information, and the inability of patients to know what is important and what is unimportant, creates strain in the relationship. Physicians are seen by Hughes as structuring the interaction not so much to control patients as to elicit the relevant information. The source of this structuring is in Hughes' view more the incapacities of patients than the need for power of physicians.

Although strain is ubiquitous in the doctor-patient relationship, the nature of the strain is dependent on the nature of the participants.[64] Hanley and

[61]Freidson, *Patients' Views of Medical Practice*, p. 175.

[62]M. J. Bloor and G.W. Horobin, "Conflict and Conflict Resolution in Doctor/Patient Interaction," in Cox and Mead, *A Sociology of Medical Practice*, pp. 271–284.

[63]David Hughes, "Control in the Medical Consultation: Organizing Talk in a Situation Where Co-Participants Have Differential Competence," *Sociology*, (1982), 361–376.

[64]Freidson, *Doctoring Together*, p. 49.

Grunberg outline three types of patients (the hostile, the passive-dependent, and the manipulative-seductive) and three types of doctors (the omnipotent, the anxious, and the detached), and they discuss the nature of the strain in each of the nine possible relationships.[65] In only two of the nine possible relationships is there no real strain. The perfect relationship for doctors exists when they are detached and are dealing with passive-dependent patients: there is no strain of personalities and detached doctors are given virtual carte blanche by such patients. The perfect relationship for patients exists when they are manipulative and are dealing with anxious doctors: in this situation patients can completely dominate the relationship. *In all of the other relationships there is considerable strain.* When hostile patients meet "omnipotent" doctors, physicians are thwarted by patients and there is a rapid termination of the relationship. In the relationship between passive-dependent patients and anxious doctors both try to please, but insecurities and guilt in both lead to strain and eventual termination.

*Lawyers and clients.*     In contrast to lawyers who work in large organizations and have corporations as clients, lawyers who work on their own and have individuals as clients are generally marginal members of the legal profession.[66] Much of their professional life is spent in seeking out clients who are deemed undesirable and unprofitable by the large law firms. Some must even engage in the unethical behavior of "ambulance chasing" in order to make a living.[67] Ambulance chasers are those lawyers who actively pursue customers involved in accidents and offer them their services, whereas those in the large law firms can generally sit back and wait for the clients to come to them.

Carlin's study of lawyers in private practice catalogs a long list of devices employed to build up a clientele.[68] Young solo lawyers may at first rely on friends and relatives, but they soon find that they cannot build practices on this basis alone. Thus they join organizations, cater to members of their ethno-religious group, become involved in politics, and rely on "brokers" (for example, another lawyer, a police officer, a minister) to find clients. Life for them is generally a constant struggle to get and keep an adequate clientele, and they must engage in a number of activities that they may consider non-professional and/or distasteful because they do not have the prestige and administrative apparatus of a law firm. This is in line with the findings previously cited by Engel, which point out that solo practice is a threat to professional status, in this case, of the lawyer.

In a study of the relationship between lawyers and clients over injury claims, Rosenthal found a basic conflict of interest.[69] From the lawyers' point

[65]F.W. Hanley and F. Grunberg, "Reflections on the Doctor-Patient Relationship," *Canadian Medical Association Journal,* 86 (1962), 1022–1024.

[66]John P. Heinz and Edward O. Laumann, *Chicago Lawyers: The Social Structure of the Bar* (New York: Russell Sage Foundation; and Chicago: American Bar Foundation, 1982).

[67]Kenneth Reichstein, "Ambulance Chasing: A Study of Deviation and Control Within the Legal Profession," *Social Problems,* 13 (1965), 3–17.

[68]Jerome Carlin, *Lawyers on Their Own* (New Brunswick, NJ: Rutgers University Press, 1962).

[69]Douglas Rosenthal, *Lawyer and Client: Who's in Charge?* (New York: Russell Sage, 1974).

of view, their income was maximized by a quick settlement of a suit. On the other hand, it was in the clients' interest to extend the case over a period of years. Such conflicts of interest are common in lawyer-client relationships.

Hosticka has added to our knowledge of the "power struggle" between lawyer and clients in his study of a legal-services-for-the-poor program funded by the federal government.[70] Although there is a power struggle here, as in all professional-client relationships,[71] the vast majority of the power in this specific situation rests with the lawyers. The clients are poor, often on welfare and living in substandard housing, faced with chronic problems, and defensively responding to the initiatives of others (for example, landlords suing to get back rent). The lawyers, of course, are perceived as high-status, highly educated professionals.

The lawyers move immediately to establish their control over the interaction and to maintain that control throughout the encounter. It is at this point, however, that

> there is often a "power struggle" as the client tries unsuccessfully to control the description of the case. The struggle consists of the client beginning a description, the lawyer interrupting to ask a question, the client answering the question, then changing the subject, the lawyer interrupting with another question, and so on, until the client lapses into brief answers to questions posed by the lawyer. A large number of the remaining questions contain their own answer, indicating that the lawyer is seeking confirmation of developed views on the subject.[72]

While most clients acquiesced to the efforts of lawyers to control interaction, some resisted by persisting in putting forth their version of the story. Lawyers tended to regard such persistent clients as hostile and in a few cases walked out on such situations where they were unable to control the interaction. Interestingly, lawyers also tended to work harder for persistent clients. Because of limited time, the lawyers seemed to give a disproportionate amount of their time to cases in which demands were made on them. Conversely, little attention was devoted to cases in which few demands were made of the lawyers.

### Coping With Conflicts With Clients

In this section, we will examine some of the ways in which the free professionals in medicine and law cope with their conflict with clients. Interestingly, we find that in a surprisingly large number of cases the professionals seek to accommodate themselves to the demands of their clients.

Doctors, for example, often follow a carefully defined set of rules designed to avoid antagonizing the patients. After all, in the end physicians are dependent for their livelihood on a steady flow of patients. Thus, they are

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[70]Carl J. Hosticka, "We Don't Care About What Happened, We Only Care About What Is Going to Happen: Lawyer-Client Negotiations of Reality," *Social Problems*, 26 (1979), 599–610.

[71]Fisher shows how the power lies with physicians in their relationships with patients; see, Sue Fisher, "Doctor-Patient Communication: A Social and Micro-Political Performance," *Sociology of Health and Illness*, 6 (1984), 1–29.

[72]Ibid., 604.

careful to appear interested in everything the patient has to say, no matter how trivial. Further, they are not supposed to argue with patients' personal prejudices. They at least should always appear to be immersed in the discussion. Finally, they are to "beware of bare statements, or bare truth, or bare logic."[73]

In some cases physicians must go even further in accommodating themselves to the needs and desires of patients. General practitioners, in particular, must be responsive to the lay culture. It is by pleasing this culture that they get and keep patients. "Whether their motives be to heal the patient or to survive, professionally, they will feel pressure to accept or manipulate lay expectations, whether by administering harmless placebos or by giving no unpopular drugs."[74] Many patients visit physicians for the first time on a "tryout" basis. The patients assess the doctors' performance and may even compare their assessment with those of others who have used the same doctors. Only if their assessment is favorable will the patients return to the doctors. This obviously puts a great deal of pressure on physicians to attempt to please their patients.

Professionals can, of course, take far more aggressive and independent stands. Rosenthal found a variety of such actions in his study of legal injury claims. Lawyers could simply refuse cases that promised to be too difficult or that held out a small monetary return. They could "farm out" cases that didn't look very promising to specialists for a fee. They could themselves specialize, handling only those cases that they preferred and found most lucrative. Too, it is possible for lawyers to take a variety of very questionable actions in order to cope with the basic conflict of interest between themselves and their clients. It is possible, for example, to bribe some insurance adjusters to settle a case quickly and profitably; or cut corners to reduce the time required on the case; or attempt to persuade clients, often falsely, that a quick settlement is in their best interests. Finally, they could present their case fairly to the clients and seek an approach that is in the interests of both of them. Thus there are a variety of rather independent actions open to professionals in seeking to cope with client conflict, although some of them are highly unethical or illegal.

Although a variety of independent actions are open to professionals in coping with client-centered conflict, in many cases they are forced to accommodate their interests to the wishes of the client. And though they have often surrendered to clients, they usually deny it, arguing that such a surrender hurts professional performance. With this ideology, professionals have hoped to bolster their power vis-a-vis the clients. However, research has indicated that the compromise between professionals and clients not only exists, but is likely to lead to improved performance by professionals.

Rosenthal studied the relationship between 59 Manhattan residents who made personal injury claims and their lawyers.[75] He sought to determine which of two models of professional-client relations was superior. One model was the "traditional approach," which accords ultimate power to the profes-

[73]L.J. Henderson, "Physician and Patient as a Social System," *The New England Journal of Medicine,* 212 (1935), 821–823.

[74]Eliot Freidson, "Client Control and Medical Practice," *American Journal of Sociology,* 65 (1960), 378.

[75]Rosenthal, *Lawyer and Client: Who's in Charge?*

**TABLE 8.1   Actions Taken by Clients In Personal Injury Cases**

| ACTION | PROPORTION OF THE SAMPLE TAKING THE ACTION |
|---|---|
| 1.   Seeks quality medical examination of the injuries. | 76% |
| 2.   Makes wishes and concerns about the case clear to the lawyer. | 39% |
| 3.   Follows up with the lawyer to be sure his case is getting his attention. | 31% |
| 4.   Seeks a second legal opinion. | 27% |
| 5.   Collects information to help the lawyer. | 22% |

SOURCE: Adapted from *Lawyer and Client: Who's in Charge?* by Douglas Rosenthal, © 1974 by RussellSage Foundation.

sional; the other was the "participatory model," "which assumes that client welfare and the public interest are best served where clients participate actively in dealing with their problems and share control and decision responsibility with the professional."[76]

He found five types of client activities that might have an impact on an injury claim decision. Those five actions, with the proportion of the respondents taking each of them, are presented in Table 8.1. Only two clients took all five actions, while eight took none of them.

An index of client activity was developed and it was related to case outcome. In developing the index of case outcome, the opinions of a series of experts on what settlement the client should get was compared to what the client actually got. Contrary to the expectations of many, participating clients did not do more poorly—in fact, those who actively participated got better recoveries than those who did not. Not all forms of client activity were useful. Making follow-up demands of the lawyers and making wishes clear were most highly related to successful case outcome, while seeking a second legal opinion and marshaling evidence were weakly related.

The relationship between client participation and successful outcome was not perfect. Some clients who participated did poorly, while some who did not participate did well. Yet 75 percent of those who were active on their cases got good results, while only 41 percent of those who were inactive got similar results. Rosenthal argues that the legal process is so complex that lawyers can use all the help they can get. He concludes that "neither lawyer nor client should be in charge, but that professional service should be a matter of shared responsibility."[77] On the basis of his research, Rosenthal goes on to build what he calls a "participatory model" of professional-client relations. It has the following elements:

1.   Clients are active participants in the professional-client relationship (informed of choices open to them as well as the attendant risks; involved in making decisions and sharing responsibility for those decisions).

[76]Ibid., p. 2.
[77]Ibid.

2. Clients should surrender the notion of the professional as invincible.
3. Clients understand the choices open to them and make a positive contribution in the making of those choices.
4. Clients recognize that conflicts of interest between professionals and clients are inevitable and can be resolved by collaborative efforts.
5. Standards of professional and client performance can be defined and maintained by collaborative efforts of professionals and laypersons.
6. The public can be given more information about problems requiring professional help and encouraged to shop around among available professionals.

Although Rosenthal believes in the participatory model, he recognizes that there are costs involved in such an approach: it will take more of the clients' time and energy, it may cost more, and it may increase the ability of clients to pressure the lawyers into more immoral, illegal, or unfortunate actions.

Although some of these problems are far-fetched, the fact remains that this new approach will entail costs. Yet given the changing nature of client-professional relations, is there any choice? We think not. The participatory model will solve many problems involved in professional-client relations and, if we can generalize from Rosenthal's findings, it will also give us higher-quality decisions. It should also be noted that Rosenthal's findings are not idiosyncratic. At least some support is to be found in Hosticka's research (discussed above) in which he concluded that lawyers devoted more time and energy to those cases in which the clients persistently followed their interests.

In concluding this section on the conflict between free professionals and their clients, we must underscore Freidson's point that no matter what efforts are undertaken, there will always be a residue of conflict that cannot be eliminated:

> The patient, properly educated or not, will find occasion to resist the doctor. The doctor cannot accommodate himself to the patient beyond a certain point *without ceasing to be a professional expert,* but his expert status does not by itself stimulate patient cooperation in the areas where conflict is most likely to occur.[78]

## THE PROFESSIONAL SCIENTIST

Earlier we discussed the scientist as one of the professionals likely to be found in organizations. But in this post-industrial society where scientific knowledge, in particular, is becoming ever more important, we need to devote considerably more attention to the professional scientist.[79] Our focus here is the conflict engendered among scientists by their institutionalized efforts to compete for fame, even preeminence, within their chosen fields. While competition is a reality of life in science, it contradicts the profession's formal norms such as

[78]Freidson, *Patients' Views of Medical Practice,* p. 186.

[79]For a historical discussion of the emergence of this profession see, Joseph Ben-David, *The Scientist's Role in Society: A Comparative Study* (Chicago: University of Chicago Press, 1984).

communality and disinterestedness. In fact, much of what really goes on in science is in opposition to the formal norms of the scientific community. In the course of discussing scientific competition we will also analyze the general gap between formal norms and actual behavior.

In this section we are offering a sociological view of scientific innovation and creativity. We are arguing that it is the social pressure to compete for recognition that is an important, even crucial, factor in the development of scientific breakthroughs. Such a perspective stands in contrast to widely held views about scientific achievements. One generally held idea is that scientific developments are the product of the intellectual genius working in virtual isolation. This image has been buttressed by the mass media, which see the lonely scientist as a romantic and dramatic figure. Scientists have also contributed to this image by their own behavior and their descriptions of their work. Take, for example, Isaac Newton's rather humble description of his achievements:

> I do not know what I may appear to the world; but to myself I seem to have been only like a boy playing on the seashore, and diverting myself in now and then finding a smoother pebble or a pretty shell than ordinary, whilst the great ocean of truth lay all undiscovered before me.[80]

Closely related to this image of the isolated scientist is the idea that scientific breakthroughs are the products of individuals with an extraordinary intellectual capacity which we often label as genius. Albert Einstein has come to be the very symbol of the scientific genius. This idea fits well with the view of the isolated scientist, since the genius is assumed to be best suited to working alone, unplagued by the inadequacies of less brilliant colleagues and laypeople.

There is still a third conception of the scientist and scientific development which we need to differentiate from the one taken here. This view differs from the individualistic bias of the two outlined above; it errs in the direction by being too socially deterministic. Here scientific developments are seen as the almost inevitable products of prior social and scientific developments, of the "ripeness of the time." The scientist has simply added the small, often anticlimactic, final touch. An extreme version of this point of view argues that the individual scientist really makes no difference. In our opinion, this perspective accords too little significance to the individual, while the first two are overly individualistic.

A more complete conception of scientific achievement must embrace the three points of view outlined above as well as adding another crucial ingredient: the social setting of the scientist. In this view "science in fact develops within a community of interacting scientists."[81] But this is not to reject the other conceptions. Scientific breakthroughs can be made by scientists who work alone, although they must be dependent on the work of peers and predecessors, even if they do not have actual physical contact with them. The genius is certainly necessary and, all other things being equal, scientific geniuses

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[80] In Jonathan R. Cole and Stephen Cole, *Social Stratification in Science* (Chicago: University of Chicago Press, 1973), p. 1.

[81] Ibid.

are more likely to make breakthroughs than are their less intellectually capable colleagues. Scientists are also dependent on the work that has come before them, although their additional contributions, even if they are small, may be crucial.

Although we accept the importance of all these factors, sociologists place primary emphasis on the social processes involved in scientific creativity. As we will see, the thrust of sociological thought and research on this issue leads to the conclusion that it is the process of competition for scientific recognition that is crucial in the creation of scientific developments.

### Normative Structure of Science

We need to begin with a discussion of the basic normative structure of science. As with much else in the sociology of science, the seminal work on the normative structure of science was done by Robert Merton, and Norman Storer has performed a useful service for us by organizing (and expanding on) Merton's original formulations.[82] Table 8.2 provides us with an overview of the basic normative structure of science, the guidelines that scientists are supposed to follow in their craft. Let us briefly examine each of the six basic norms of science enumerated in Table 8.2.

*The norm of objectivity.*   The scientist is expected to evaluate past and on-going scientific developments from an objective, rather than a subjective, point of view. This means that scientific work is, in Merton's terms, to be evaluated on the basis of "preestablished impersonal criteria."[83] Implied here is the idea that a scientific idea will receive the recognition it deserves whether it is produced by a Noble-prize-winning physicist at Harvard University or an unknown technician at a remote junior college.

*The norm of organized skepticism.*   It is the responsibility of scientists to be skeptical, especially to be critical of the work of their colleagues, in particular the work that forms the basis of their own studies. If they fail to do this, and incorporate others' false or erroneous ideas, then they are held responsible for this failing by the larger scientific community (assuming, of course, that their failure is discovered). The discovery of this kind of error is made more likely by another aspect of this norm, which makes it necessary for scientists to publicly expose errors in the work of others. Further, scientists are supposed to take a similarly skeptical attitude toward their own work; they must critically analyze it from all sides in order to expose its weaknesses.

*The norm of emotional neutrality.*   Scientists are expected to adopt an emotionally neutral stance toward their own work as well as the work of their peers. Overly committed scientists may fail to see the problems involved in those ideas or in the utility of a new or different set of ideas because of their commitment to a given point of view. Scientists who are overly committed to one theory would be more tempted to bias their methods or their findings.

[82]Norman W. Storer, *The Social System of Science* (New York: Holt, Rinehart and Winston, 1966).

[83]Robert K. Merton, *The Sociology of Science* (Chicago: University of Chicago Press, 1973).

**TABLE 8.2   The Basic Normative Structure of Science**

| | POINT OF REFERENCE | | |
|---|---|---|---|
| *Focus of* *the Norm* | The Body of Scientific Knowledge | Interaction among Scientists | The Scientist's Psychological State |
| *Orientation* | 1. Objective | 2. Organized Skepticism | 3. Emotional Neutrality |
| *Action* | 4. Generalization | 5. Communality | 6. Disinterestedness |

SOURCE: From *The Social System of Science* by Norman W. Storer. Copyright © 1966 by Holt, Rinehart and Winston, Inc. Reprinted by permission of Norman W. Storer.

*The norm of generalization.*   The norms of objectivity, organized skepticism, and emotional neutrality relate to the way scientists orient themselves to a variety of objects. The last three norms, on the other hand, are concerned with the action of scientists. The norm of generalization underscores the fact that scientists are supposed to aim toward the development of general, and generalizable, knowledge. They are expected to take isolated bits of data and combine them into more general hypotheses, propositions, and laws. Ultimately, of course, these are supposed to be combined into still more general theories, such as Darwin's theory of evolution, Mendel's theory of genetics, and Einstein's theory of relativity.

*The norm of communality.*   The norm of communality (or "communism," as Merton originally called it) means that scientists must recognize that their work is dependent upon the contributions of predecessors as well as peers. This is epitomized in Isaac Newton's well-known statement: "If I have seen farther, it is by standing on the shoulders of giants."[84] A corollary of this norm is that scientists are supposed to have humility. As Merton has emphasized, scientific knowledge constitutes "a common heritage in which the equity of the individual is severely limited."[85] Scientists are expected to share their work with colleagues doing work in the same area. They should publish their work as soon as they feel it is ready for public exposure, so that other scientists can react to it, expand on it, even refute it.

*The norm of disinterestedness.*   Finally, scientists are expected to be interested in the good of the larger scientific community, not in receiving financial reward or in increasing their own fame.

### The Scientist's Real World

These six norms constitute a very romantic image of scientists. There is, of course, a gap between this model and actual behavior, and this section is

[84]Ibid., p. 303.
[85]Ibid., p. 273.

devoted to the conflicts brought about by this disparity. We begin by discussing the antecedent issue of what causes this gap to exist.

As Storer has pointed out, the normative system of science is purely structural and tells us little about what actually happens in science and what causes those things to occur.[86] It was Merton himself who saw the weaknesses in his static formulation and developed a conception of how the system actually moves, how it operates. The *motive force is seen by* Merton to be the ambition to achieve professional recognition. In part, this ambition is derived from a psychological desire to succeed. But in addition, and more important sociologically, professional recognition is an institutionalized aspect of the structure of science that serves to reinforce the basic psychological drives.

In his work on the battles over priorities in scientific discovery, Merton emphasizes the real world in science and the centrality of competition in that life. It is of considerable interest to scientists to be the first to discover something, to establish their priority in a scientific discovery. The rewards in science, primarily recognition from the larger scientific community, go to the individual or individuals who are the first to make and publicly announce a discovery. Someone who makes the same discovery later is relegated to the dustbin of scientific history. It is through original discoveries, through what Kuhn calls scientific revolutions, that the great scientific advances are made.[87]

It is important to reiterate that the drive for recognition is not simply a result of the psychologic drive for success. It is also derived from, and is an integral part of, the normative system of science.

> To say that these frequent conflicts over priority are rooted in the egotism of human nature, then explains next to nothing; to say that they are rooted in the contentious personalities of those recruited by science may explain part, but not *enough; to say,* however, that these conflicts are largely a consequence of the institutional norms of science itself comes closer, I think, *to the truth. . . .* It is these norms that exert pressure upon scientists to assert their claims.[88]

The norms of science constrain the behavior of scientists in a variety of ways. As students, scientists internalize these norms; thus they have a great impact on what they do in later life. In addition, other scientists enforce the norms and in overt and covert ways lead scientists to conform to the desire to achieve recognition from peers for original contributions.

What are scientists after in their drive for recognition? To answer this question we must look at the reward system in science. Financial gains are supposed to be of little importance to scientists, as well as to professionals in general. But today it is more and more possible for scientists to strive for, and be rewarded with, money. In spite of this, few have the option of becoming rich.

Money aside, at the top of the reward list in science is *eponymy,* or the affixing of a scientist's name to an aspect of his or her field. "Eponymy is . . . the most enduring and perhaps the most prestigious kind of recognition

[86]Norman W. Storer, "Introduction" to Merton, *The Sociology of Science,* pp. xi–xxxi.

[87]Thomas Kuhn, *The Structure of Scientific Revolutions,* rev. ed. (Chicago: University of Chicago Press, 1970).

[88]Merton, *The Sociology of Science,* p. 293.

institutionalized in science."[89] A scientist may be recognized for part, or all, of something he or she has discovered (the *Copernican* system, *Halley's* Comet). Even more impressive would be to have one's name affixed to an entire age (the *Newtonian* epoch, the *Einsteinian* era). Or a new science, or a branch of science, can be named for a scientist (*Freudian* psychiatry). There are other ways in which a scientist can be rewarded with eponymy. Minor subspecialties within a science can be named after an individual, or specific laws, theories, or instruments.

There are, of course, many other rewards of significance to scientists that serve to motivate them toward making important breakthroughs.

1. Prizes and medals—Perhaps the most sought-after prize is the Nobel Prize.[90]
2. Nomination to exclusive and prestigious professional societies.
3. Citations in analyses of the history of one's field.
4. Citations in textbooks and in others' research.
5. Fellowships—Among the most prized are Guggenheim and Ford Foundation fellowships.
6. Editorships of important journals in the field—This enables one to serve as a "gatekeeper," deciding what work should and should not be published.
7. Appointment to well-known chairs in universities.
8. Honorary degrees.
9. Appointment as consultant to various governmental, industrial, or international bodies. (This reward also brings additional income.)
10. Recognition by scientific peers and the public.

Merton maintains that in many ways the drive for recognition stands in opposition to the normative system, even though it is itself derived from that system. He acknowledges that science has a more human side, even some dysfunctional aspects, but he believes that most of these dysfunctions are kept largely in check by the existence of counterbalancing norms. For example, the communality of science leads scientists to have a sense of humility that counteracts the egotism spawned by the rush for priorities. Fraud and plagiarism, which are made distinct possibilities by the desire for recognition,[91] are largely prevented by the existence of the norm of communality.

The contradiction between at least some scientific norms and the pressure toward priority gives scientists a sense of ambivalence toward their desire to compete for recognition:

> To insist on one's originality and claiming priority is not exactly humble and to dismiss one's priority by ignoring it is not exactly to affirm the value of originality; as a result of this conflict, scientists come to despise themselves for wanting that which the institutional values of science had led them to want.[92]

[89]Ibid., p. 300.

[90]Harriet Zuckerman, "Nobel Laureates in Science: Patterns of Production, Collaboration, and Authorship," *American Sociological Review*, 72 (1967), 391–403; Harriet Zuckerman, *Scientific Elite* (New York: The Free Press, 1977).

[91]L.S. Hearnshaw, *Cyril Burt: Psychologist* (London: Hodder and Stoughton, 1979).

[92]Merton, *The Sociology of Science*, p. 305.

In other words, scientists are literally compelled by the norms of science to be *ambitious and* to be ashamed of those ambitions.

This is not the only type of ambivalence[93] in science. Other forms of ambivalence include the following:

1. Scientists are expected to make their knowledge available to peers as rapidly as possible, but they are also admonished not to publish shoddy or incomplete work by rushing into print.
2. Scientists are warned against being caught up blindly in the latest scientific fads, but they must simultaneously avoid becoming ossified. They must be flexible, open to new ideas, but must avoid blindly following the scientific bandwagon.
3. Scientists are expected to believe that their scientific contributions should, and will be, esteemed. Yet at the same time they are warned not to work in order to enhance their personal standing and esteem.
4. Scientists are not supposed to advance claims for new knowledge until they are, in their minds, beyond reasonable dispute. But once they advance those ideas, they are expected to shift gears and defend them no matter how great the opposition.
5. Scientists are supposed to make every effort to know the work of their predecessors and contemporaries. At the same time they are taught that too much erudition can be a substitute for creativity or can stultify creativity.
6. Scientists are expected to pay scrupulous attention to detail, but they must not become so bogged down in minutiae that they fail to see the broader significance of their work.
7. Scientific knowledge is supposed to be universal. Yet science is often wrapped up in the political aspirations of the scientist's nation. Thus, scientists often see their work used as political tools by their nations, sometimes to the detriment of the overall scientific community.
8. It is the responsibility of scientists to train the next generation of scientists, but they must not allow teaching to sap all of their energies, leaving them little time for original, creative research.
9. The scientific craft is learned best when neophytes apprentice themselves to masters, yet they ultimately must gain autonomy, become scientists on their own.

As we can see, the focus in the sociology of science has gradually moved from the normative structure to the real world of scientists. Spurred on by James Watson's[94] expose of the way he and his colleague Francis Crick made one of the most important discoveries of our time, the DNA double helix—and won a Nobel Prize in the process—sociologists could no longer ignore the "real" behavior of scientists.

Watson made it clear that he and Crick were highly ambitious men who were *not going* to allow a few norms to stand in their way in their race to establish priority in the discovery of the structure of DNA. Watson's description led many to realize that the desire for recognition, the need to compete, and a great deal of ambition were far more valid descriptions of the behavior of sci-

[93]Robert K. Merton, "The Ambivalence of Scientists," in Norman Kaplan, ed., *Science and Society* (Chicago: Rand-McNally, 1965), pp. 112–132.

[94]James D. Watson, *The Double Helix* (New York: New American Library, 1968).

entists than the abstract normative system. Science emerges, in Watson's work, as a world no better and no worse than those of business, politics, and the like.

Merton responds that this is not news. He argues that the "dog-eat-dog" world of science has been with us since the beginning of the scientific endeavor; competition for priority within science has been institutionalized from the beginning.[95] The only difference in our time, he says, is that there are now many more scientists, so a given discovery is likely at any time to be made by a number of people. It is the realization that competition exists that has increased in recent years, not the competition itself.

A phenomenon that highlights the reality of life in science, rather than its normative structure, is the "Matthew Effect,"[96] the tendency to give recognition to already famous scientists (for example, Nobel Prize winners) while those who have made as important or even more important discoveries get significantly less acknowledgment. This, of course, stands in contradiction to the basic norms of science, in particular the objectivity of scientific activity. Yet the Matthew Effect exists in spite of these norms. For example, in collaborative work, it is often the most prestigious of the coauthors who gets credit for the discovery. It also occurs in the case of simultaneous multiple discoveries when the more famous of the scientists is the one who receives recognition for an accomplishment. The Matthew Effect obviously has negative consequences for lesser-known scientists. Furthermore, it leads to the rather uncritical acceptance of work by noted people.

The cult of the personality in science performs some positive functions as well. Scientific idols can set the course for an entire field and lead it into some uncharted areas into which it might not otherwise venture. They also keep the field exciting by continually igniting intellectual ferment. They are particularly important in influencing the direction taken by young scientists. Publishing with scientific leaders obviously gains attention for the work of young scientists.[97] Because they already have high status, famous scientists can afford to tackle high-risk problems that have a limited hope of success. Thus, in his later life, Albert Einstein devoted himself to the kinds of issues others avoided.[98] Moreover, famous scientists, their status secure, are less likely to deluge the field with a series of lower-quality research papers. They know what not to publish. Thus scientific heroes have both positive and negative consequences for science.

There is research that warns us to be careful in applying the Matthew Effect. A study by Cole and Cole found that the quality of a piece of work is more important in gaining recognition for it than are the variables associated with the Matthew Effect (such as whether the author possesses awards, works in a prestigious department, or is a widely known figure in the field.)[99] Later,

[95]Merton, *The Sociology of Science,* pp. 334–335.

[96]Ibid., p. 381.

[97]Stephen Cole, "Professional Standing and the Reception of Scientific Discoveries," *American Journal of Sociology,* 76 (1970), 286-306.

[98]Ronald Clark, *Einstein: The Life and Times* (New York: Avon Books, 1971).

[99]Stephen Cole and Jonathan Cole, "Scientific Output and Recognition: A Study in the Operation of the Reward System in Science," *American Sociological Review,* 72 (1967), 377–390.

the Coles found that the initial reception of a paper appears to be determined more by its quality than by the position of the author in the stratification system of science.[100] However, the speed of diffusion of a paper is affected by the position of the author in the scientific hierarchy. High-quality papers by either high- or low-ranking scientists are about equally likely to be diffused early, but lesser-quality papers by top-ranking scientists are more likely to be disseminated early than those of low-ranking scientists. These studies suggest that Merton may have exaggerated the significance of the Matthew Effect.

A view seems to be emerging in which science is no longer seen in terms of a single set of norms, but rather in terms of norms and counternorms. As early as 1963, Merton and Barber made this observation: "Behavior oriented wholly to the dominant norms would defeat the functional objectives of the role. Instead role behavior is alternately oriented to dominant norms and to subsidiary counter-norms in the role."[101] In contrast to the impersonal character of the dominant norms, the counternorms of science are distinctly personal. Personal elements are increasingly less likely to be seen as dysfunctional, as destructive of good science, but rather as an integral part of the scientific enterprise.

The importance of counternorms in science has been empirically demonstrated in Mitroff's[102] study of the scientists involved in the analysis of rocks brought back from the moon. Of prime importance is his finding that in contrast to the norm of emotional neutrality, there was strong emotional involvement in the work: *"Every one of the scientists interviewed on the first round of interviews indicated that they thought the notion of the objective, emotionally disinterested scientist naive."*[103] They were committed to their work in at least three different senses: (1) they believed that scientists had to be committed to their theories in order to test them adequately; (2) "Scientists were affectively involved with their ideas, were reluctant to part with them and did everything in their power to confirm them;"[104] (3) commitment was found to pervade the whole process of science from the discovery of scientific ideas to the testing of those ideas. Said one of the scientists about the most committed of his peers:

> The commitment of these guys to their ideas while absolutely infuriating at times can be a very good thing too. . . . It's true that these guys are a perpetual thorn in the side of the profession. . . . [But] we need them around. They perpetually shake things up with their wild ideas, athough they drive you mad with the stick-to-itiveness that they have for their ideas.[105]

[100]Ibid.

[101]Robert Merton and Elinor Barber, "Sociological Ambivalence," in E.A. Tiryakian, ed., *Sociological Theory: Values and Sociocultural Change* (Glencoe, IL: The Free Press, 1963), pp. 91–110.

[102]Ian Mitroff, "Norms and Counter-Norms in a Select Group of the Apollo Moon Scientists: A Case Study of the Ambivalence of Scientists," *American Sociological Review*, 39 (1974), 579–595.

[103]Ibid., 587.

[104]Ibid., 586.

[105]Ibid., 589.

In fact, such commitment to both norms and counternorms is, almost by definition, a state of ambivalence. Scientists cannot choose between one or the other but are constantly confronted with a tug-of-war between the two sets of norms.

Just as the norm of emotional neutrality has a counternorm of personal commitment, the norm of communality is opposed by the counternorm of solitariness—the belief that discoveries are one's property and that secrecy may have to be practiced to retain control over that property. Mitroff found that about a fifth of his sample acknowledged that stealing was a minor, or sometimes even a major, problem. By stealing, however, the scientists did not mean conscious theft (which was regarded as an insignificant problem), but rather the unconscious and unintended use of another scientist's ideas.

Mitroff argues that solitariness and secrecy are not merely protective devices, but true counternorms within science. As such, they perform a number of vital functions: for example, without secrecy science would be chaotic since it would be almost constantly disrupted by priority disputes. In addition, secrecy plays the useful function for scientists of acknowledging that they are indeed doing something worthwhile, something worth protecting. Even stealing, as dangerous as it is, performs a similar function by affirming the value of what one is doing. Said one scientist:

> It is only when I began to do something significant and important that people began to *steal* [italics added] from me . . . *You know you're doing something significant when people want to steal it.*[106]

So, we can see that the actual practice of science is far more human, personal, and informal than was indicated in the early work in the sociology of science, which focused on the normative structure of science. The gap that exists between the ideal and the real behavior of professional scientists causes conflict. One type of conflict—the drive for recognition and the resulting competition—exists as a reality alongside the formal norms of science: objectivity, disinterestedness, emotional neutrality, communality, and so on. That conflict is the force behind the creativity and progress of professional scientists.

## CONCLUSIONS

In this chapter we have examined the distinctive worklife conflicts of three types of professionals. We have seen that professionals employed in organizations, particularly nonprofessional organizations, tend to be confronted with conflict between their professional norms and the norms of the employing organization. Although this conflict exists, we have also seen that there is no simple and direct inverse relationship between professionalization and bureaucratization. Although this conflict may be functional for both organization and professional, we discussed a number of ways in which the various parties involved can cope with the conflict. Among the devices open to the employing

[106]Ibid., 593.

organization are the dual ladder and the physical segregation of professionals. Professions can help ease the conflict by rewarding contributions to employing organizations and training new members to adapt to those organizations. Individual professionals can cope by choosing a setting best suited to their needs or by adapting in various ways to the conflict, such as by attempting to fuse the roles of professional and bureaucrat. More radical is the propensity of at least some professionals to join labor unions.

The second part of the chapter was devoted to a discussion of "free" professionals, their distinctive conflicts and resolutions. The free professional is most often confronted with conflict with clients. We examined a variety of ways in which the professional can cope with this conflict. The most surprising conclusion to be drawn from this section is that, contrary to what many professionals say, the quality of professional service seems to be better when there is a more questioning clientele and hence a greater chance of professional-client conflict.

Finally, we dealt with professional scientists and the conflict between the norms of scientific behavior and the reality of life within science. In our view, this conflict is an important source of innovation and creativity in science.