receive a formal medical education and qualify for an M.D. Corner has carefully examined this early history of the medical profession and provides an excellent insight into the steps taken to adapt the European model of medical education to the American scene. The wisdom of some of the early advice (from men like the London physician John Fothergill) and the foresight of the founders is given its proper dimension alongside the squabbles and jealousies that plagued the fledgling school.

John Morgan, a Philadelphian who had returned from the Edinburgh, London, Continental circuit, a man of brilliance and ambition, stands out as the real organizer of the new medical faculty. Corner's assessment of Morgan's inaugural "Discourse upon the Institution of Medical Schools in America" is generous:

Morgan's plan, in fact, comprised practically all the elements of medical instruction that after long, costly trial and error the American profession has since found to be essential. Affiliation with a university, qualified professors, thorough premedical preparation of the students, a curriculum with planned well-defined courses of instruction introducing the basic scientific studies before clinical work, close relations with a teaching hospital, a library, high standards for graduation-all these are mentioned and most of them expounded at length. Morgan had seen, also, the need for laboratory-type demonstrations in anatomy, botany and chemistry. He even suggested that a medical school might become a center of research. Had a program such as he presented to his trustees in 1765 been followed wherever medical schools grew up in the new country, American medicine need not have taken a century and a half to catch up with Europe (p. 21).

But Morgan's plan was not enacted at once, even in Philadelphia (few, if any, of the European medical schools were up to the proposed standards), and it is the steps toward fulfillment which Corner reports and analyzes. The history is both internal and external; the long list of builders is constructed, and the very different careers of the teachers, the clinicians, and the scientists are recorded.

The problems that stood in the way of a high quality education, one which demanded effort and achievement on the part of the student, are examined in detail for the case of the School of Medicine at Pennsylvania but clearly apply to what became the national scandal of substandard medical education. Success, the success of attracting students and granting M.D.'s, encour-

aged the founding of other medical faculties (many without University connections) and led to competition for students and student fees, thereby tolerating lowered standards.

Other innovations are charted; among the most important of which was the foundation, at the University of Pennsylvania in 1874, of the first teaching hospital, built under the auspices of, and staffed by, the medical faculty. Hospital professors were appointed and students were brought into the wards, steps not achieved without some conflict. But by the end of the 19th century medical schools took on new patterns, their training procedures were improved, and research slowly became an integral part of their activity.

George Corner is a distinguished biologist as well as medical historian, and these dual interests have served him well in this history. Detail is given where needed, and the reader has the sense of getting a whole and balanced picture. But Corner has managed to fill his chronicle with much of the excitement of the events and their times. He has provided an extraordinarily complete bibliography arranged by subject within each chapter so that the reader is quickly referred to the and commentaries documents special fields of medicine, institutions, or departments and to selected biographical accounts of the major figures in the history. The School of Medicine of the University of Pennsylvania has been twice fortunate—in its 200 successful years and in its most recent historian.

EVERETT MENDELSOHN
Committee on History of Science,
Harvard University

## Dropping out of High School: Sociocultural and Psychodynamic Factors

The Dropout: Causes and Cures. Lucius F. Cervantes. University of Michigan Press, Ann Arbor, 1965. 256 pp. \$6.95.

The increasing number of unskilled, uneducated, and unemployed in the labor force is one of the most critical social and economic problems facing the United States today. Among the factors that contribute greatly to the problem is the incidence of withdrawal from high school. Employment opportunities for high school graduates are limited at best, but those for the nongraduate are slight indeed. The importance of the problem of the high school dropout is becoming recognized, and programs to alleviate the situation are being established. But much more will need to be done. The research reported in this book contributes a comprehensive body of facts and analysis which can be extremely valuable to those engaged in planning or introducing programs to combat this problem and to those in positions to deal with the dropout or potential dropout face to face-social workers, high school principals, counselors, and teachers.

This research was "designed to examine, in an explorative fashion, both the sociocultural and psychodynamic factors involved in withdrawal from the academic milieu," or more simply, dropping out of high school. The areas

of investigation included "the structure, dynamics, and emotional climate of the family"; the influences of family friends and of the teen-ager's teenage friends; the school experiences; and psychic characteristics as evaluated by means of the Thematic Apperception Test.

Since "the heart of the dropout problem is encased in the blue-collar metropolitan area," matched samples of dropouts and graduates were obtained from such areas in New Orleans, Boston, St. Louis, Omaha, Denver, and Los Angeles. The samples comprised 150 paired dropouts and graduates equivalent in sex, age, I.Q., and attendance at the same school and from the same general socioeconomic background. There was no representation from Negro slums or white suburbs.

Data were collected by means of an interview schedule, a questionnaire, and the Thematic Apperception Test. The average interview lasted 35 minutes. In the case of the dropout, the interview was conducted "in his own locale—either his home or some community center." The graduates were largely interviewed in their schools. Each interview was private and was tape recorded. It is stated that "good rapport was established in almost every case and there is no substantive reason to question the truthfulness of the responses." Apparently the teen-age respondents

welcomed the opportunity to "unload." (Consider in this connection the careful planning, the effort, and the time required to collect the data.) The Thematic Apperception Test was administered only to the 100 matched pairs in New Orleans and Boston.

The data are reported and analyzed in chapters 1 through 5; chapter 6 contains a summary and conclusions in the form of recommendations. Differences between dropouts and graduates are presented in small tables, and  $\chi^2$  tests are applied to the differences. The data are also reported in numerous case studies of varying length, which at times would seem repetitive and monotonous if the story they tell were not so important.

Possibly the best way to summarize the data presented is to summarize the general hypotheses introduced at the beginning of the book, since the data establish the truth of these hypotheses:

- 1) The dropout is reared in a family that has less solidarity, less primary relatedness, and less paternal influence than the family in which the graduate is reared.
- 2) The dropout is brought up in a family that has fewer close friends and fewer "problem-free" friends than the family in which the graduate is brought up.
- 3) The dropout's personal friends are typically not approved by his parents. The resulting "independent youth culture" of the dropout is in sharp contrast to the youth culture of the graduates, whose friends are approved by his parents and thus integrated with the adult culture.
- 4) The dropout was in trouble at school when he terminated his education and was but slightly involved in any school-related activities throughout his academic career.
- 5) The phantasy life of the dropout as manifested by the TAT is more characterized by unrestrained Id themes and that of the graduate more characterized by restrained superego themes. It is inferred from the TAT data that the dropout is typically "resentful of all authority (home, school, police, job, church)," has a weak "deferred gratification pattern," and a "weak self-image."

Other characteristics of dropouts not specifically identified above include retardation, irregular attendance at school, and frequent tardiness when in school. The dropout is especially deficient in the ability to read and to communicate. Teachers are seldom his

confidants. Poverty is the milieu of the dropout, but lack of finances is seldom a reason for withdrawal. Especially worth noting in this research report are the contrasts between the families of the high school graduate and of the high school dropout—"the youth who continues in school has his origins in a family where personal acceptance, communication, and pleasure are staples." Numerous dropouts report that "there is not one person in their home in whom they can confide, with whom they enjoy being during leisure hours, and who they feel understands and accepts them."

Sociologists should read this book

for the light that it sheds and the myths that it dispels with respect to family structure and youth culture. It should also be read by those who can bring action to bear on the dropout problem. Especially should it be read by social workers, high school principals, teachers, and counselors who may be able to compensate, in some measure, for the inadequate families of the dropouts or potential dropouts. On occasion, they may be able to transmit the message to the parents.

Max D. Engelhart Division of Institutional Research and Evaluation, Chicago City Junior College

## Government-Sponsored Research and Exploration of Alaska

Exploration of Alaska, 1865–1900.

Morgan B. Sherwood. Yale University Press, New Haven, Conn., 1965.

xvi + 207 pp. Illus. \$6.50.

As 1967, the centennial year of the purchase of Alaska, approaches we can look forward to the publication of many books about the state, its economy, environment, and people. It is hoped that at least one or two will be concerned with the history of Alaskan exploration, a most neglected field of study. If this excellent volume by Morgan B. Sherwood is an indication of things to come, then there is much fascinating and scholarly reading ahead for those interested in our 49th state.

Alaskan history has not always been a neglected field. In 1886 Bancroft's monumental History of Alaska was published, and in the 1920's there was the pioneering work of the late F. A. Golder. Bancroft's work, of necessity, deals primarily with the Russian period while Golder, during his abbreviated career, was concerned with specific problems and areas of Alaskan exploration and did not attempt a major overview of the subject. The only other historical surveys worth mentioning are Stuart R. Tompkins' brief but excellently written and well-documented study, Alaska, Promyshlennik and Sourdough, and A. H. Brooks's, Blazing Alaska's Trails, filled with valuable information on exploration during both the Russian and American periods, but published long after his death and poorly edited. It is perhaps significant that in spite of its age, errors, and poor documentation, Bancroft's History is still, in the words of Sherwood, "the single most important history of the northland" (p. 57).

The period covered by Sherwood's book is a justifiable unit because, as the author rightly points out, there was little scientific exploration of Russian America, while by 1900 all problems of gross geography in the territory had been solved. In his introduction the author provides a conceptual framework against which Alaskan exploration is examined; namely intellectual, political, and industrial attitudes in the United States toward the newly acquired territory.

The author deals succinctly and realistically with the significance, both scientific and political, of the Western Union Telegraph Expedition and then examines in detail the scientific career of William Healy Dall. Alaska specialists specifically concerned with ethnology and history are frequently exasperated by the errors and vague generalizations in Dall's writings, particularly in Alaska and Its Resources, but they tend to forget, or are ignorant of, his accomplishments in other fields and his accurate assessment of the future needs of the newly acquired territory.

Of particular interest to me is the chapter on Ivan Petroff, a major contributor to Bancroft's *History* and to the Tenth Census. Like most current workers in the field, Sherwood believes, perhaps somewhat intuitively, that Petroff's "translation" of Father Juvenal's "diary" is a fraud, but it was a disappointment to find that the author has little in the way of proof to back up this assertion.