

MMPI: Redefining Normality for Modern Times

The most widely used psychological test in the world is based on outdated information about "normal" personality, according to researchers who this month are publishing a book containing an entirely new set of "contemporary" personality norms. Because of value shifts that have taken place since the 1940s, the original norms today make people appear more psychologically deviant than they really are, the authors say. But a leading authority on the personality test says that the revision is wrongheaded and may cause clinicians to overlook serious mental illness in the community.

The test in question is the Minnesota Multiphasic Personality Inventory (MMPI), which was developed at the University of Minnesota in the late 1930s. Designed to identify specific personality problems, the test consists of more than 500 statements, which test-takers endorse as true, false or neither. These answers contribute to scores on 10 personality scales measuring such characteristics as paranoia, depression and social introversion. Although originally intended for use with psychiatric patients, the MMPI today has been translated into over 40 languages and is widely used for preliminary psychological evaluation, for employment screening and in child custody judgments. People are screened for hidden personality problems by comparing them to a group of well-adjusted "normal" people.

The problem with the MMPI lies with this group of allegedly normal people, according to Robert C. Colligan, a psychologist at the Mayo Clinic in Rochester, Minn., and principal author of *The MMPI: A Contemporary Normative Study* (Praeger). The original developers of the MMPI — psychologist Starke R. Hathaway and neurologist John C. McKinley — selected a convenient rather than scientific sample of normal people, Colligan says. A large part of their sample was found at the University of Minnesota Hospital, where the scientists stopped visitors in the corridors and asked them to complete the test. They also sampled a group of WPA workers and high school graduates seeking job counseling, and the end result was that the typical person in the normal group was 35 years old and married, resident of a small town or farming community, with eight years of schooling. "The importance of the original normal group cannot be overemphasized," Colligan says. "Whoever takes the MMPI today is being compared with the way a man or woman from Minnesota endorsed those items in the late 1930s or early 1940s."

Wondering whether the old personality norms might be outdated, Colligan and co-workers administered the MMPI to a

random sample of over 1,400 people from households in the vicinity of the Mayo Clinic. They found that, on each of the 10 personality scales, the modern "normals" had significantly elevated scores, indicating more pathology; the differences (which are greater among men than among women) are large enough to have effects on clinical diagnosis, the researchers report. While such findings could be taken to indicate an increased rate of sickness in modern society, Colligan and colleagues prefer an alternative interpretation: Because social perceptions have changed over 40 years, he told SCIENCE NEWS, many of the items do not have the same meaning to people and are therefore answered differently, contributing to different (but not necessarily meaningful) personality profiles.

In order to derive useful modern personality norms, the authors eliminated the extreme scores found in their sample (presumably indicators of undiagnosed personality problems) in order to have an even distribution of normal scores and, in effect, a higher cutoff for deviancy. In addition to developing general adult norms, they also used the new data to develop norms for different age groups from 18 to 99: On most scales, scores tend to increase with age, suggesting that a single norm — for depression, for example — might not be

useful across all ages.

The MMPI itself will remain unchanged, but clinicians will now have the option of interpreting results using traditional or modern norms. W. Grant Dahlstrom, a psychologist at the University of North Carolina in Chapel Hill and one of the foremost experts on personality testing, objects to the new norms and disagrees with the reasoning behind them. The effect of the new age norms, he argues, is to decrease the likelihood that distress will be diagnosed among the elderly — simply because it is typical of the elderly to be distressed. Similarly, the statistically adjusted norms imply that there is a normal group in society with no undiagnosed sickness, he says; a test artificially designed to ignore the real rate of sickness in society is not only illogical, but could do a serious disservice by preventing accurate diagnosis and appropriate therapy for people who need help. It remains an open question, Dahlstrom says, whether the elevated MMPI scores of the 1980s reflect a changing culture or whether psychopathology is in fact on the rise. "What are new styles of childrearing, unemployment, and the threat of nuclear holocaust doing to our mental health? If you start squeezing out variance in the test, you may squeeze out valid variance you're going to wish you had in there." —W. Herbert

Weapons research: Taking up the SLAC

The question hangs over the Bay Area's academic science community like the fog over the Golden Gate Bridge. And despite last week's announced "resolution" of the problem by Stanford University, it seems certain that like the daily influx of fog, this is one issue that will not go away.

Stanford officials announced that they had solved a dispute over whether or not nuclear weapons research would be allowed at the Stanford Synchrotron Radiation Laboratory (SSRL) and the Stanford Linear Accelerator Center (SLAC). Under the resolution, SSRL's electron beam lines would be used only for "basic science measurements" in weapons research. "All routine calibration of instruments for the weapons tests," on the other hand, will be done at the University of California's nearby Lawrence Livermore National Laboratory, Sidney Drell, acting director of SLAC, said in a memo to his staff.

The action is aimed at placating those members of the SLAC and Stanford faculty who had opposed the proposed weapons research. "Direct weapons applications clearly are not now present in the proposal," university Vice Provost Gerald Liebman said after the resolution was an-

nounced. However, Mary James, an engineering physicist at SLAC, strongly disagreed. "I doubt that anybody with real trepidations [about weapons research] is satisfied by the outcome," James told SCIENCE NEWS. "Certainly, this is still a weapons program. People feel they're being forced to participate in a program against their will. As far as I'm concerned, Livermore's moving in [to SSRL]."

Arthur Bienenstock, director of SSRL, conceded in an interview that "there will be weapons-related research" at the Stanford facility. "But," he added, "it will be basic research. There is basic research going on throughout the country that at the same time can benefit weapons programs." James says that although she cannot dispute Bienenstock's assessment that the matter is "officially closed," the dispute has raised the larger question of "what academic freedom means. When I joined SLAC five years ago," she said, "there was a tacit understanding that no weapons work would be done here... I'm personally saddened." Gregory Loew of SLAC said the faculty senate plans to review "the whole question of intent of research." —J. Greenberg