This paper revisits a landmark study of the prevalence of mental illness in the state of Massachusetts conducted by Edward Jarvis in the 19th century. Jarvis drew an improper conclusion about the relationship between social class, ethnicity, and insanity, asserting that the Irish foreign-born had a higher prevalence of insanity in each social stratum. A reanalysis of Jarvis' data shows that in both the pauper and independent social classes in Massachusetts, the prevalence of insanity was significantly lower among foreign-born persons than among native-born persons. On the basis of his misperception, Jarvis constructed elaborate etiological theories. These theories made a strong impact on the mental health service policies of his day. The effects of incomplete examination of data on etiological theories and mental health policy in current times are highlighted in this article. (Am J Public Health. 1998;88:1396–1402)

Edward Jarvis was one of the first physicians in America to practice psychiatry and to apply statistical methods to the study of health and social problems. He was, arguably, our nation's first psychiatric epidemiologist. Jarvis was raised in Concord, Mass, a town considered to be the cradle of 19th-century American intellectualism, and was educated in moral philosophy and medicine at Harvard College. His contributions to scientific inquiry reflected his 3 passionate interests: psychiatry, statistics, and social action. Edward Jarvis was a pioneer in the study and treatment of mental disease. He was a founding member and 21-year president of the American Statistical Association. His long career reflects a deep commitment to the belief that scientific inquiry is valuable only as a means of understanding social conditions and shaping social policy.

Jarvis was a prolific writer. Between 1833 and 1884 he published key articles in leading journals on such varied topics as intermarriage and disease, occupation and longevity, the geographic location of mental hospitals and the place of residence of hospital patients, practical physiology, inaccuracies in the 1840 US census, sanitary conditions in the US Army, and the tendencies of men and women to commit different types of crimes. In 1872, when the American Public Health Association was founded, Jarvis was an enthusiastic supporter and was called upon to take an active role. His biographer, Gerald Grob, writes, "The fact that many of the founding members of the American Public Health Association exemplified a happy combination of character, morality, and knowledge only stimulated Jarvis' enthusiasm."

The effort that distinguished Jarvis as the founder of American psychiatric epidemiology was his remarkable study of the prevalence of mental disorder in 19th-century Massachusetts. In 1854 Jarvis was commissioned by the Massachusetts state legislature to undertake a thorough census that included the identification and description of all "insane and feeble-minded" persons within the state. These were the 2 categories pertaining to mental dysfunction during this period. In the survey, general medical practitioners and/or clergy in each town were asked to list the names and demographic characteristics of each such person within their jurisdiction. Also queried were superintendents and caretakers at hospitals, almshouses, jails, and correctional facilities within the state and hospital superintendents in nearby states where Massachusetts citizens may have been residing. By these methods, Jarvis attempted to make a thorough and unduplicated count of the insane and feebleminded, to describe their demographic characteristics, and to measure the occurrence of insanity in demographic subgroups.

The commissioning of Jarvis’ census took place at a moment in history when the United States was undergoing rapid social change. Between 1845 and 1860, the population of the new country swelled from a flood of European immigration. Most immigrants settled in free states where jobs were available in factories and in construction work; the majority of those who settled in Massachusetts came from Ireland. Fearing the impact of immigrants on employment opportunities and on Anglo-Protestant culture, some Americans formed nativist organizations. The Irish, who worked for lower wages and gave alle-
giance to the Papacy, bore the brunt of anti-
imigrant sentiments. The nativist move-
ment had a significant impact on political
affairs, and in 1854 the Know-Nothing Party,
pledging support to White, native-born
Protestant candidates, garnered 25% of the
vote in New York and 40% of the vote in
Pennsylvania and won the governorship in
Massachusetts.

Immigration and anti-immigrant senti-
ments also influenced the asylum movement
and were an impetus for the Massachusetts
legislature to commission the census of the
insane. In the early decades of the 19th
century reformers had exposed the horrific
conditions to which insane persons were sub-
jected at county almshouses and jails. These
reformers argued that the state should take
responsibility for applying medical, rather
than simply custodial, care to persons with
mental illness. By transferring responsibility
to the state, consistent and humane policies
and standards for the care of the insane could
be instituted. By the early part of the century,
insanity had become commonly recognized
as a disruption of mind and spirit. The prece-
dent for humane treatment of the insane had
been imported from England, where asylums
were built in rural areas to minimize excite-
ment of the patients' nerves. English asylums
were beautifully landscaped to promote heal-
ing through exposure to tranquil and aesthetic
environs and offered "moral therapy," com-
bining regimens of exercise, good food, con-
siderate treatment, work, and amusement,
which would appeal to patients' highest lev-
els of humanity.

Hospital superintendents played a vital
role in the application of moral therapy, visit-
ing patients daily to bestow a dose of med-
cal paternalism. The majority of the first
generation of US asylum superintendents
hailed from rural, Protestant, middle-class
backgrounds. Since no specialization in
mental illnesses was offered in medical
schools, they were general medical practi-
tioners, and as superintendents, they were
freed from the competitiveness of private
practice. In 1833 Massachusetts became the
first state to establish a public insane asylum,
in Worcester. Other New England states fol-
lowed suit, and in 1844 the superintendent of
Worcester Hospital invited the heads of 23
other American mental hospitals to form
what was the predecessor of the American
Psychiatric Association.

Application of moral therapy seemed
well suited to the rural asylum when it was
inhabited by a small patient population that
was fairly uniform in its adherence to middle-
class Protestant values. In the early days of
the asylum, superintendents claimed to dis-
charge as many as 80% to 100% of their
patients as cured. The influx of immigrants
into New England changed the nature of the
asylum. With asylum populations burgeon-
ing, debates arose as to whether states had a
moral and legal obligation to provide treat-
ment to foreigners who were insane. Many
felt that the expense of hospital treatment
would be wasted on nonnatives whose ill-
nesses were thought to be intractable and
who could just as well be housed in local
jails and almshouses. Whether or not non-
natives of different cultural and religious
backgrounds could benefit from moral ther-
apy soon became a secondary issue in the
face of general overcrowding, which led to
the disruption of the peace, tranquillity, and
social organization upon which this thera-
peutic approach depended.

It was in response to these conditions and sensibilities that the Massachusetts State
Legislature commissioned Jarvis to carry out
his study. Special focus was given to issues of
social class, nativity, and curvature. In his
1855 report, Insanity and Idiocy in Massa-
cachu.st, Jarvis noted that a disproportion-
ate number of the insane, relative to the
general population of Massachusetts, were
paupers. Jarvis' report also indicated that for-
eigners were overrepresented among Massa-
cachusetts' insane, with the crude prevalence
of insanity being higher among the foreign-born
than among the native-born. On the basis of
his crude findings, and without actually per-
forming social class--stratified analyses,
Jarvis asserted, "Here is a large number of
foreign lunatics within the state and in hospi-
tals and places of public custody and these
unquestionably, bear a larger ratio to the same
population of their own class than the native
lunatics [emphasis added]" and further,
"The greater liability of the poor and the
struggling classes to become insane seems to
be especially manifested among these
strangers dwelling among us." Such statements
indicate that Jarvis believed that within social strata, the foreign-born were
more likely to be mentally ill.

Jarvis had both the numbers and the
methodology to test his assumptions, but he
did not do so. The conclusions he drew from
his survey played an influential role in shap-
ing the public mental health policies through-
out the nation. In this article we focus on
Jarvis' findings regarding social class, ethnic-
ity, and mental illness. We present a reanaly-
sis of Jarvis' data, in which his crude relative
prevalence estimates of insanity by nativity
status are compared with newly calculated
social class--stratified relative prevalence esti-
mates. We examine the crude and stratified
findings in light of varying explanations for
the relationship between social class and
mental illness and explore the implications
for public mental health policies of coming to
incorrect conclusions about class, ethnicity,
and mental illness.

Methods

To calculate the social class--specific relative prevalence of insanity among the
foreign-born vs the native-born, we extracted data directly from Jarvis' report on
the insane. Jarvis defined nativity and poverty status very clearly. Regarding nativity, resi-
dents were classified as "native" or "foreign" on the basis of whether they had been born
in the United States. In fact, nearly three
fourths of the foreign-born residents of
Massachusetts in 1855 were of Irish ances-
ty. Regarding poverty status (social class), residents were classified as "pauper" or
"independent" according to whether their
means of support derived from the state or
town or whether they were supported by
their own property or by their friends.

The definitions of mental health status
used by Jarvis are less clear. The psychiatric
nosological categories of the day included
"insane lunatics" and "feeble-minded idiots."
In the lay and medical literature, insane per-
sons were described as melancholic, mania-
cal, or simply mad. Benjamin Rush, founder
of American psychiatry, defined insanity as
"a false perception of truth: with conversa-
tion and actions contrary to reason, estab-
lished maxim, and order." The paucity of
clearly articulated definitions of insanity
may have been a result of the attitude
expressed by William Buchan, the author of
a widely read medical book of the time:
"There is no great occasion to be solicitous
about the definition of a disease which every
body knows."

In his introduction to the 1971 reprint-
ing of Jarvis' report, Gerald Grob suggests
that in the mid-19th century mental illness
was identified by observing outward behav-
ioral symptoms. He lists the clearest of
these as hallucinations, smearing of feces,
and dramatic neurological symptoms that
were sequelae of syphilis. With a prevalence
of only 0.2%, we can be certain that the
category "insane" included only individuals
with extremely severe disturbance. On the basis
of Grob's impressions and diagnostic data
from other public psychiatric facilities at the
turn of the century, it appears the majority
may have had schizophrenia or paraplegic.

Since nativity, insanity, and poverty sta-
tus were each classified dichotomously, the

census data were stratified into 8 (2 x 2 x 2)
subgroups based on these 3 factors. Crude
and financial status stratum--specific relative
prevalence estimates and 95% confidence

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intervals were calculated with Epi Info, Version 6.0 (Centers for Disease Control and Prevention, Atlanta, Ga), to compare the prevalence of insanity among immigrants with that among native-born persons. Mantel-Haenszel relative prevalence, adjusted for financial status, are also calculated.

**Results**

According to Jarvis’ report, in 1854 Massachusetts had 1,124,676 residents, of whom 23,125 (2.1%) were paupers and 230,000 (20.5%) were foreign-born. The report does contain an error in arithmetic or a typographical error—the number of paupers plus the number of independent residents add up to 1,125,676 [p 52]. Jarvis found the overall prevalence of untreated and treated insanity to be 2.3 cases per 1,000 persons.

Table 1 depicts the numbers of sane and insane foreign-born and native-born persons in the 1854 population of Massachusetts, by poverty status. Jarvis correctly stated that “the native insane were one in four hundred and forty-five of the total native population, and the foreign insane were one in three hundred and sixty-eight of the whole number of aliens in the State.”[10] Thus the crude prevalence of insanity for foreign-born persons relative to native-born persons was 1.2.

An examination of the effect of nativity within each social class leads to a different conclusion about mental illness among the foreign-born relative to the native-born. As Table 1 shows, within the pauper class, the prevalence of insanity among the foreign-born was 6.0%, while the prevalence of insanity among the native-born was 7.0%. Within the independent class, the prevalence of insanity among the foreign-born was 0.02%, while the prevalence of insanity among the native-born was 0.12%. Thus in both social strata, foreign-born persons had a significantly lower prevalence of insanity than native-born persons. The relative prevalence of insanity among the foreign-born was 0.86 (95% confidence interval [CI] = 0.78, 0.95) in the pauper class and 0.17 (95% CI = 0.12, 0.22) in the independent class. The Mantel-Haenszel adjustment for social class yielded an overall relative prevalence of 0.62 (95% CI = 0.56, 0.68).

Discrepancies between the crude and social class-stratified relative prevalences for nativity were due to confounding of the crude relative prevalence estimate by social class. The prevalence of insanity was 65.5 times higher among paupers than among those of independent means, and the foreign-born were 2.7 times more likely to be paupers than the native-born.

Although the foreign-born had a relatively lower prevalence of insanity in both the independent and pauper classes, the data show evidence of a modification of the effect of nativity on mental illness by financial status. On a multiplicative scale, the relative effect of nativity was much stronger in the independent class than in the pauper class, but that is to be expected, given the extremely low base rate of insanity (0.02%) among foreign-born persons in the independent class. On an additive scale, the absolute effect of nativity was stronger in the pauper class (1%, vs 0.1% in the independent class). Both of these differences are small, but they are significant because of the large number of subjects in the survey.

**Discussion**

There is no justification for Jarvis’ assertion that the greater liability of the poor to become insane was especially manifest among those who were strangers to Massachusetts soil. In fact, in the pauper class the foreign-born, who were mostly Irish, exhibited a significantly lower prevalence of insanity than the native-born.

**Causal Theories and Social Policies**

What plausible causal mechanisms might explain the relationships between social class, ethnicity, and mental illness in Jarvis’ study? For over a century, a debate has raged among epidemiologists and sociologists as to whether the inverse relationship consistently reported between social status and psychiatric illness is due to social selection or social causation. The debate centers around the causal direction of the association between social status attainment and mental illness onset. If mental illness can be shown to arise within the context of poverty, a social causation argument is supported. According to social causation theory, the stresses of low socioeconomic status—crowded or dangerous living conditions or lack of opportunities, social supports, goods, services, prestige, or power—may be a cause of mental illness.[13,14] If onset of mental illness or behavioral manifestations that are precursors of disorder are shown to precede the attainment of low social status, the social selection argument is supported. According to social selection theory, the prevalence of a high level of psychopathology within the lower social strata is a result of psychologically disabled persons’ tending to drift down from higher social classes or failing to rise out of lower social classes.[15]

Like the Jarvis census, most epidemiological studies of mental illness that allow investigation of the relationships between social class, ethnicity, and mental illness are cross-sectional in design, so that it is difficult to establish causal directions and to disentangle the association of risk factors with onset of illness and duration of illness. Ideally, these relationships would be examined by means of longitudinal designs in which parental psychiatric history and socioeconomic status could be established and the onset and course of psychiatric symptomatology and changes in social (i.e., educational, occupational, residential) status could be tracked. A large study carried out by Dohrenwend et al. in Israel was able to use a cross-sectional design to examine the relationship between social class and distinct mental illnesses (schizophrenia, major depression, antisocial personality disorder, and substance abuse).[16] Unlike the Jarvis survey, the Israeli study was carried out under conditions that minimized the effect of ethnicity-specific mechanisms associated with selective migration and diagnostic bias. This study showed evidence that social selection was the primary mechanism...
operative in schizophrenia, whereas social causation appeared to be primarily operative in the other disorders.

Positing that poverty somehow causes mental illness and positing that mental illness somehow causes poverty lead us to entirely different conclusions about the relationship between ethnicity and mental illness in 19th-century Massachusetts. Under the assumption that low social class is a cause of mental disorder, the interpretation of Jarvis’ findings is straightforward. Socioeconomic status explains some part of the ethnicity–insanity association. Because a disproportionate number of foreign-born residents were paupers (4.2%, compared with 1.5% of native-born residents) and because the prevalence of insanity was higher among paupers than among persons with independent means (6.58% vs 0.10%, or 66 times higher), the crude relative prevalence of insanity was 1.2 times higher among the foreign-born than among the native-born. In the crude comparison, the strong negative association between financial status and insanity overwhelmed the significant but weaker negative association between insanity and foreign-born status. Once an adjustment for financial status was made, the relative prevalence—0.62 (95% CI = 0.56, 0.68)—revealed a significantly lower prevalence among the foreign-born population.

If social class explains part of the ethnicity–insanity relationship, once that part is accounted for the question becomes, Why did the Irish and other foreign-born persons have a lower prevalence of mental illness in each of the social strata? Figure 1 illustrates the causal pathways under the social causation model. Because adjustment for social class uncovers a lower prevalence of mental illness among the foreign-born, we must posit a plausible protective nativity mechanism. The low risk among the Irish-born might be explained by selective migration—that is, those who migrated and survived the journey were a mentally healthy group. It is also plausible that genetic constitution, dietary factors, child-rearing practices, or cultural cohesiveness could be responsible for the lower prevalence of mental illness in the Irish-born, once the effect of nativity through social class had been accounted for. Since these are prevalence data, we must also consider artifactual explanations that have nothing to do with the risk of onset of mental illness. Perhaps Irish immigrants with mental illness escaped being counted in the prevalence census because they were disproportionately likely to die young or because they were deported to their homeland.

On the other hand, if we assume that the relationship between social class and insanity is attributable mainly to selection, then it is inappropriate to control for the effect of social class on the ethnicity–mental illness relationship because of the direction of the causal pathway. Since in the selection model mental illness precedes social class attainment, we are then interested in the independent relationship between ethnicity and mental illness. In this instance we are left to explain why the Irish had a higher prevalence of mental illness. We need to posit a nativity-specific risk factor related to insanity (Figure 2). If the relationship between social class and mental illness is due to differential drift, then plausible explanations for the observed elevation in the prevalence of insanity among the immigrant Irish might include differential labeling of cultural groups as insane, genetic predisposition of the Irish to mental illness, the tendency of persons with mental illness to leave their homeland, the impact of migration, or the stresses of discrimination or acculturation once the immigrants had set foot on Massachusetts soil.

Edward Jarvis had his own ideas about poverty and insanity, and his etiological theories were included in his report to the Massachusetts legislature. Reflecting the American middle-class Protestant values of his time, he wrote:

Poverty is an inward principle, enrooted deeply within the man, and running through all his elements; it reaches his body, his health, his intellect, and his moral powers, as well as his estate. In one or other of these elements it may predominate, and in that alone he may seem to be poor; but it usually involves more than one of the elements, often the whole. Hence we find that, among those whom the world calls poor, there is less vital force, a lower tone of life, more ill health, more weakness, more early death, a diminished longevity. There are also less self-respect, ambition and hope, more idocy and insanity, and more crime, than among the independent.14

Thus, according to Jarvis, “low vital force” was a hereditary condition antecedent to a multitude of moral, mental, and physical ills, including both poverty and insanity (Figure 3).

Jarvis also proposed explanations for what he supposed, mistakenly, was an increased prevalence of insanity among the Irish in the lower social class (Figure 4). “Besides these principles [low vital force], which apply to the poor as a general law, there is good ground for supposing that the habits and condition and character of the Irish poor in this country operate more unfavorably upon their mental health, and hence produce a larger number of the insane in ratio of their numbers than is found among the native poor.”15 Unquestionably,” he wrote, “much of their insanity is due to their temperance, to which the Irish seem to be peculiarly prone, and much to that exaltation which comes from increased prosperity.16 A more complete analysis of the data would have disconfirmed Jarvis’ prejudices: the slight increase in the unadjusted crude prevalence of insanity he observed in the Irish disappeared, was even reversed, upon adjustment for social class.

It is interesting that Jarvis’ own review of the psychiatric literature current in the mid-19th century showed the disproportionality of insanity among the Irish-born to be an American anomaly. The British scientists with whom Jarvis communicated had found no excess of lunacy among the Irish in England, despite their poverty. They reported that the Irish congregate in the cities, and live in the most unhealthy districts, in narrow lanes and dense courts, in small and unventilated apartments, and even in the many cellars of Liverpool, Manchester, & Glasgow. They undergo great privations and suffering, and are much subject to fevers, dysentery, and other diseases incident to bad air and meager sustenance; but there is no ground for suspicion that in that country they have more lunacy than the natives.17 18

FIGURE 1—Causal pathway for lower prevalence of insanity among Irish-born persons in 19th-century Massachusetts under the social causation model, controlled for socioeconomic status (SES).
Depending on whether we accept the causation model, the selection model, or Jarvis’ common antecedent model as an explanation of the social class–insanity relationship in Massachusetts in 1854, Irish nativity was either a protective factor (under the social causation model) or a risk factor (under the social selection and common antecedent models). On the basis of Jarvis’ study, 2 very broad conclusions can be drawn. First, the relationship between social class and mental illness was much stronger than the relationship between nativity and mental illness. Second, it appears that for the Irish in 19th-century Massachusetts, part of the relationship between ethnicity and mental illness was caused by a mechanism distinct from the mechanism relating mental illness and social class. Apart from these broad statements, the Jarvis study gives us little insight into the etiological relationships among social class, ethnicity, and mental illness. Yet delineating correct causal models is vital to establishing appropriate public health policies. Without such models, earnestly conceived policies intended to improve health and social conditions can miss the mark.

Science and Xenophobia

Edward Jarvis was wrong in concluding that insanity was more common among the Irish poor. Why did Jarvis, a respected statistician, misread his data? The charitable view would be that he did not have adequate quantitative skills to cross-classify his data by social class, ethnicity, and mental illness, but this is not the case. In his report, 10 he correctly calculated the prevalence of insanity by nativity status (p 59), by financial support status (p 61), and by sex (p 76). He was at ease with complex stratification of data, as evidenced by his calculation of the percentage of foreign-born “lunatics” of the independent class who were residing in hospitals (p 65). And, most telling, he had performed 2-stage prevalence calculations in presenting the sex-specific ratios of insane to sane persons in the foreign-born population (p 76). Thus he had demonstrated the analytic skills necessary to be able to compute the “financial support” stratum–specific relative prevalence of insanity among the foreign-born vs the native-born. If not for lack of analytic skills, perhaps Jarvis was too immersed in the idea that Irish ethnicity, foreign-born status, and poverty constituted a single, inextricably joined construct to distinguish the trees from the forest.

Jarvis was not the only scientist of his time to allow xenophobia to cloud his objectivity. In The Mismeasure of Man, Stephen Jay Gould depicts the tenacity with which biological determinists interpreted data and reinterpreted conflicting data to support arguments for the inevitability of the superior position among humans of Whites and males.17 For example, in the 1830s through 1850s, another distinguished American physician/scientist, Samuel George Morton, amassed a large collection of human skulls. These skulls were measured to document racial differences in average cranial capacity, which was believed to reflect intellectual capacity, which was, in turn, believed to reflect overall superiority. A careful scientist, Morton, like Jarvis, published his raw data, allowing Gould to detect in Morton’s summaries a “patchwork of fudging and finagling in the clear interest of supporting a priori convictions.”17

Like Jarvis, Morton was able to use sophisticated analytic techniques of cross-classification and restriction to adjust for factors that might possibly confound the relationship between race and cranial capacity. He applied these techniques when their use could bring data in line with his idea of the superiority of Whites, and did not apply them when their application would yield unsupportive empirical evidence. By applying these techniques uniformly, Gould revealed that, according to Morton’s own data, there were no significant racial differences in average cranial capacity.

Jarvis thought and wrote in an era of heightened concern that immigrants would create disharmony within the general culture as well as within social institutions. In 1827 the Report of the Committee Appointed by the Board of Guardians of the Poor of the City and Districts of Philadelphia to Visit the Cities of Baltimore, New York, Providence, Boston, and Salem stated:

One of the greatest burdens that falls upon this corporation is the maintenance of the host of worthless foreigners, disregarded upon our shores. The proportion is so large and so continually increasing, that we are imperatively called upon to take some steps to arrest its progress. It is neither reasonable nor just, nor politic, that we should incur so heavy an expense in the support of people who never have, nor never will contribute one cent to the benefit of this community, and who have in many instances been public paupers in their own country. . . . That the people of this district should unresistingly suffer it to become the reservoir into which Europe may pour her surplus of worthlessness, improvidence and crime, exhibits a degree of forbearance and recklessness altogether inexcusable.

Reflecting the widely held attitudes toward the effect of immigrants on the established social order, Jarvis’ recommendation to the Massachusetts legislature was that it build separate facilities for the native-born and foreign-born insane. Describing the people of Massachusetts, Jarvis wrote:

To put together, in the same wards, insane persons of these two races, with such diversity of cultivation, tastes and habits, who stood aloof from each other in all social life when they were well enough to select their own companions—to require them to live in the same halls, to eat at the same table, to bear with that which was offensive, and from which they would have shrank in health, is not the best way to calm the excitaments or soothe the irritations of this disease, and is contrary to the principles everywhere acknowledged.

The separate facilities, Jarvis suggested, could be staffed by persons sympathetic to the cultural values of the 2 groups. The hospitals for natives could be smaller, as smaller institutions had proven to be the best therapeutic milieu for sensible and civilized persons. The hospitals for the foreign-born could be more populous, since, in Jarvis’ view, the Irish stock and culture seemed to

Note. Social class varies from low to high. Mental illness is either absent (0) or present (1). There is no natural ordering among categories of ethnicity. To permit the depiction of positive or negative associations between ethnicity, SES, and mental disorder, ethnicity was classified as 1 (privileged ethnic group) or 2 (underprivileged ethnic group).

FIGURE 2—Causal pathway for higher prevalence of insanity among Irish-born persons in 19th-century Massachusetts under the social selection model, uncontrolled for socioeconomic status (SES).
breed a more intractable strain of insanity, one less responsive to the well-established, albeit threatened, New England therapeutic environment. Contact of the opposing and inharmonious qualities interferes with the calm and happy discipline necessary for the recovery of the curable and for the self-control and comfort of the permanently insane,” Jarvis wrote.  

Jarvis’ findings, as well as his interpretations, had a major impact on the mental health policies of his time. Massachusetts in the mid-19th century was regarded as a beacon of intellectual pursuit and social reform. Within a year after the appearance of Jarvis’ report, a number of nationally prominent journals had published lengthy articles summarizing his findings. In an 1856 issue of the American Journal of Medical Sciences, the noted alienist Pliny Earle emphasized the parts of the study relating to pauperism and mental illness. “It is replete with suggestions which, although intended for specific and local application, will be of essential importance and assistance, in each and every other of the States of the Union where the same or similar objects may come before the attention of the legislature or its Commissioners.” Preeminent psychiatrist Isaac Ray, in the influential North American Review, echoed Jarvis’ sentiments:

The native and foreigner are no more disposed to mingle in the hospital than in the ordinary walks of life, and this repugnance of tastes, habits, and faith leads to mutual dislike and irritation. While the association of races is thus productive of many evils, it would be hard to find in it a single compensatory benefit. For the native patient... whose disorder is not so grave as to deprive them of all sense of social propriety, or to destroy their susceptibility to all moral impressions, must necessarily be annoyed and dissected by persons whose looks and manifestations are of the most disagreeable kind.

In an age of increasing respect for science, theories were particularly likely to gain authority when they arose, as Jarvis’ theory appeared to do, from meticulous measurement.

Parallels have been drawn between 19th-century New Englanders’ abhorrence of the infestation of their asylums by the Irish and their practice of refusing admission to Black Americans. We might prefer to dismiss these misbegotten attempts at social engineering based on faulty scientific claims as belonging to the past century. However, in our own time the institutions designed by society to treat the mentally ill and restrain the antisocial are racially imbalanced. In 1989, 60% of the juveniles in custody in correctional facilities were minorities, and 70% of these minority youths were African American. A nationally representative sample surveyed by the National Institute of Mental Health in 1986 showed that African American children were significantly underrepresented in inpatient psychiatric facilities compared with their representation in the US population.

In 1980, Dorothy Lewis and her colleagues compared the psychiatric symptoms, violent behavior, and medical histories of an entire 1-year sample of adolescents from a Connecticut community who were sent either to a correctional school or to the state hospital psychiatric unit for adolescents. Her initial hypothesis was that the 2 groups would be equally disturbed, but the youths in correctional facilities would be more violent than those admitted to the state psychiatric unit. However, this hypothesis was not fully substantiated. The Lewis et al. study and a 1990 study with similar methods carried out by Cohen et al. in Virginia showed that children in psychiatric hospitals have rates of mental illness nearly identical to those of children in correctional facilities, as well as nearly identical rates of delinquency and violent criminal behavior. Violence seemed to be as characteristic of the hospitalized sample as it was of the incarcerated sample... however, for reasons that were not explicit, the courts had not sent them to the correctional institution. The researchers concluded that “the most striking factor distinguishing the two groups was neither behavior nor psychopathology. It was race. In the lower socioeconomic sectors of the urban area studied, violent, disturbed black adolescents were incarcerated; violent, disturbed white adolescents were hospitalized.

These contemporary data are presented to emphasize how important it is in any era to use analytic techniques to tease out the mechanisms underlying observed social phenomena. For when xenophobia works hand in hand with biological determinism, the lower status of a minority group will be validated as the “inevitable consequences of innate ineptitude, rather than society’s unfair choices.” Only by systematic application of appropriate adjustment and stratification can we detect the hand of ethnic prejudice at work in social policy, which in turn shapes the experiences of adults and children. Thus, cross-classification has afforded a truer glimpse of the relationship between ethnicity and mental illness in New England in both the 19th and 20th centuries.

Conclusions

In his introduction to the 1971 republication of Jarvis’ report, Gerald Grob writes:

The normative standard of psychiatrists was not only a physical one that involved proper organic functioning; in some respects it was a culturally defined standard that often placed a premium on middle-class, Protestant, and agrarian values. Such values played a significant internal role in mental institutions, particularly since these
institutions catered to heterogeneous groups coming from quite different social, economic, and cultural backgrounds [p 11].

... A substantial part of psychiatric theory, therefore, was but a reflection of a particular social ideology, presented as empirical fact [p 13; emphasis added].

With proper analyses of his data, paying heed to observations pertaining to the Irish in England, Jarvis might have reached very different conclusions and promoted very different theories regarding the impact of foreign values and status on the etiology of insanity. All too often in science, the current sociopolitical zeitgeist determines what questions will be asked, what data will be gathered, what interpretations will be made, what reactions will be mounted, and what studies will be funded.

Perhaps his own New World middle-class, Protestant, agrarian values had blinded Jarvis, an erudite scientist, to the facts embedded within his own carefully collected data. What would Jarvis have thought had he analyzed his data correctly and seen a lower prevalence of insanity among the Irish in both the upper and lower social strata? Would he have reordered his thinking, or would he, like the eminent 19th-century craniologists, have struggled to incorporate his observation into the zeitgeist of his time? And what is the lesson in all of this for us? Is it possible for researchers to temper their zeal, to rid their work of contamination by unconsciously held beliefs? Despite science's own ideological assertions, history would say no. Perhaps the best we can hope for is that decades later, when the science of old zealots becomes offensive to scientists of a newer age who hold passionately to different beliefs, those scientists will be prompted to reanalyze old data and rethink old conclusions.

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