It is well established that Paris was the preferred site of post-graduate medical education for ambitious Americans between 1820 and 1860. Though a small proportion of all American graduates, the 600 students who absorbed the teaching of Broussais, Andral, Louis, and others returned to the United States and, as in the case of Elisha Bartlett, popularized French doctrines among less peripatetic colleagues (1). Unfortunately, no similar statements can be made with reference to nineteenth-century Canadian medical graduates. It might be assumed that only French-speaking Canadians would seek training in France, leaving their English-speaking compatriots to study in the British Isles. Recent investigation, however, demonstrates that French Canadians studied medicine in both Britain and the United States (2), suggesting that Anglo-Canadians may have shown a comparable disregard for linguistic barriers. This paper is a case study of one English Canadian physician who did, indeed, migrate to Paris and whose subsequent work bore the indelible imprint of that brief experience.

Richard Maurice Bucke, Canada's best-known nineteenth-century psychiatrist, graduated from McGill University in 1862 and immediately sailed for England. There he studied at several hospitals and became a friend of Benjamin Ward Richard, well-known for his investigations of amyl nitrate and later notorious for his opposition to the therapeutic use of alcohol. Bucke then spent six months in France during which he attended lectures by Armand Trousseau, Professor of Clinical Medicine at Hôtel Dieu and an advocate of conservative therapeutics, read several medical texts, and regularly visited clinics at L'Hôpital des Enfants Malades and La Charité. Returning to Canada, he engaged in general practice until his appointment, in 1876, to the superintendency of an insane asylum, a post he occupied until 1902. His psychiatric theories he communicated to medical students at the local university, where he was Professor of Mental and Nervous Diseases, and to a wider audience, first, through articles in periodicals such as the American Journal of Insanity, and secondly, in two of his books, Man's Moral Nature (1879) and Cosmic Consciousness (1901). That his message struck a responsive chord within the profession is suggested by his election to the presidency of the British Medical Association's Psychological Section in 1897 and to that of the American Medico-Psychological Association the following year (3). Many of his basic psychiatric assumptions and beliefs, evident in his presidential address to the former group, were rooted in his exposure to French biomedical thought (4).

Undoubtedly the major influence on Bucke during the 1860's was the synthetic philosophy of Auguste Comte. Though his first encounter with positivism occurred by reading G.H. Lewes' Biographical of Philosophy (1845), on his arrival in Paris...
he immediately read *Catéchisme Positiviste* (1852) and soon progressed to Comte's more prolix volumes. Like so many other English-speaking physicians, he quickly became a convert, asserting that Comte was «the greatest mind that I have ever come in contact with» (5). Many of the ideas which Bucke developed later in his career, after reading additional authorities, were first found in nascent form in Comte's work. For example, he readily accepted Ernst Haeckle's recapitulation theory but the concept was also mentioned in *Catéchisme Positiviste*. Similarly, in the same volume he would have learned that moral traits were inherited, a view confirmed later in works by, among others, Cesare Lombroso and Enrico Ferri. Beyond these fleeting but germinal references, however, Comte influenced Bucke in three very specific areas.

Comte's first major contribution to Bucke's thought was to help in the destruction of the mind-body dualism. Already, under the influence of W.B. Carpenter's physiology, Bucke had written a thesis which denied a supra-added vitalism and argued that the body obeyed the chemical and physical laws operative in the inorganic world (6). Reading Comte, Bucke discovered that Franz Joseph Gall «by an effort of genius» founded «the Positive theory of human nature». The phrenologist's accomplishment was to demonstrate that mental functions could be localized to specific areas of the brain; that thought was, in effect, a function of the organization of the nervous system (7). It followed that human mentation was, like the body itself, subject to the laws of biology. This was a significant conclusion for a physician searching for a somatic view of mental illness and medicine's role in its therapy. Moreover, it pointed Bucke towards the central concern of his first book, the neurological localization of man's moral sense.

Comte profoundly influenced Bucke's thought in a second and related area by suggesting that biological principles were applicable to the ostensibly non-biological aspects of human existence. For example, «a sound theory of biology», Comte argued, «furnishes the Positive theory of Religion with a foundation wholly unassailable» (8). According to sensualist psychology the mind depended for its content entirely on impressions gathered from the external world and particularly from interactions with other beings. Seen in this light, the content of each individual mind was related to all other minds, and together formed a collective human consciousness. This transcendent human mentality Comte designated «the Great Being» and considered it the divinity of the positivist religion. In a very similar fashion, Bucke described his own secularized «religion of humanity» based on the principles of biological science. In *Cosmic Consciousness* (1901) he argued that man's intellect was evolving to a new level of collective harmony with the universe analogous to a state of heavenly perfection. The authorities he cited, including Darwin, Tyndal and Lyell, as with Comte, were scientists rather than theologians or metaphysicians (9).

A third and final area in which Comte influenced Bucke was in the evolutionary perspective which informed his work. Comte's theory of history described a progression from an initial stage of theological superstition, through a transitional state characterized by metaphysical abstractions, to a definitive era of scientific truth. This final stage represented «that mastery which man alone can attain over all his defects, especially those of his moral nature». Individual moral improvement became generalized through the «laws of hereditary transmission» which, Comte wrote, are «even more applicable to our noblest attributes as to our lowest» (10). Bucke was already acquainted with evolutionary naturalism having read as a youth Robert Chambers' *Vestiges of the Natural History of Creation* (1844) and, later, the work of Charles Darwin and Charles Lyell. But it was Comte's evolutionary view of human moral development which most profoundly influenced him and which, in his own
work, he sought to emulate. Indeed, his vision of a world inhabited by citizens possessed of cosmic consciousness, though it depended on the work of biologists such as G.J. Romanes, owed its approach primarily to Comte's utopian style.

His approach informed by Comtean assumptions concerning the fallacy of the mind-body dualism, the applicability of biological laws to social phenomenon and the validity of spiritual evolution, Bucke embarked on a study of the function of the sympathetic nervous system. To prepare himself, he requested bibliographical guidance from Benjamin Ward Richardson who replied « the basis of the whole inquiry is to be found in... Bichat's treatise on Life and Death ». It was a fortunate recommendation for already Bucke was favourably disposed to the French histologist through Comte's avowal that the « incomparable Bichat » was the father of modern biology (11). Bucke was clearly familiar with recent experimental research on the sympathetic innervation of smooth muscle and glandular tissue, but such knowledge was irrelevant to his purpose. Instead, he followed the advice of Richardson, discovering in Xavier Bichat's anachronistic Physiological Researches on Life and Death (1800) that the structures united by the sympathetic system, « sometimes the viscera belonging to the secretions », circulatory system, and sometimes the viscera belonging to the secretions », were responsible for the expressions of « our moral affections » (12). Here, then, was the thesis of Bucke's first book, Man's Moral Nature (1879). Simply stated, the sympathetic nervous system represented « the physical basis of the moral nature » (13). This anatomical localization of morality, reminiscent of Gall, was the crucial foundation of his argument that mind, because it was a function of corporeal man, had evolved in the same fashion as the body. This Comtean view, in turn, was to provide the basis twenty years later for his study of cosmic consciousness.

Richard Bucke's metaphysical neurology, then, was shaped in both method and content by his exposure to the works of Comte and Bichat. To this superstructure were added further contributions from French medicine. His therapeutic skepticism, born at McGill and encouraged in England, received articulate confirmation in the conservative therapeutics of the Paris Clinical School. Like his teacher, Armand Trousseau, he had a significant distrust of experimental medicine, arguing that most experimentation necessarily distorted normal physiology to produce artifactual results. Finally, his view of crime and insanity as exemplifying atavistic tendencies drew, via Henry Maudsley, on the mid-century French school of degeneration psychiatry, especially the work of Benedict Morel.

The composite result of these intellectual debts was clearly evident in his approach to his insane patients. His conviction that mind and body were inextricably related, for example, was revealed in his extensive program of gynecological surgery designed to cure the mental symptoms of his female patients by removing physical pathology. Similarly, in his approach to routine therapy he disapproved drugs, believing instead that diet, rest and work restored bodily health, the essential prerequisite to mental well being (14). These views spilled over into his commentaries on social policy, or rather, like Comte, he blurred the distinction between the biological and social. He advocated an end to assisted immigration to Canada, believing the recipients were degenerates likely to crowd the nation's asylums. Similarly, he was an early advocate of state surveillance of marriage applications for the purpose of eugenic control (15). Both Bucke's medical and social philosophy, then, bore the imprint of French medicine.

The analytical perspective of Comte, with echoes of Bichat, Bucke communicated to Canadian medical students, alienist colleagues and, in his final book, which entered its twenty-third edition in 1964, to a wider popular audience. It was an important message, especially in its covert implications. His Comtean
vision, expressed in the value-transcendent vocabulary of science was designed to naturalize social forms. Biology, in effect, by designating insanity a natural physical disorder, quietly legitimated the physician's role in the care of the insane. By suggesting that the disorder was nature's way of cleansing society of degenerate misfits, biology appeared to justify racial discrimination and eugenic theory rooted in class cleavage. Bucke, himself, was oblivious to the subtle authoritarian implications of his views, choosing instead to stress the optimistic promise of an evolving cosmic utopia. Whichever aspect of his thought one emphasized, however, the derivation of his major premises may be traced to his exposure to French biomedical thought in the 1860's.

REFERENCES


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