

***CONTINENTS AND CLASSIFICATIONS: EUROPEAN INSTRUCTION
OF AMERICAN MEDICAL NOMENCLATURE***

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The Grammars of Death project is an effort to investigate the factors shaping nineteenth-century nosology, the effect that changing cause of death narratives have had on our understanding of longitudinal nineteenth century mortality trends and the effect of these changes on the subsequent, culturally embedded, conceptions of medicine and death that influence contemporary nosology. This project builds on a number of important articles and studies which recognize both the myriad of social forces shaping historical death narratives and the impact that resulting changes in cause of death descriptions have on longitudinal studies of mortality in the nineteenth and early twentieth centuries (e.g. Alter and Carmichael 1996; Armstrong, 1986; Bartley et al., 1997; Bowker and Star 2000; Bradshaw et al., 1995, 1997; Howard-Jones, 1974; Meslé and Vallin 1996; Risse 1997; Slater 1993, etc.). As Woods (1991), Alter and Carmichael (1999) and Haines (2003) note, our understanding of the nineteenth-century mortality transition itself, including key theories such as McKeown's central thesis of limited medical and public health impacts, are limited by a false precision in cause-of-death statistics.

During the early stages of the North American epidemiological transition, conceptions of disease, the organization of the medical profession, training of physicians, diagnostic nomenclature, systems for recording causes of death, composition of the population and prevailing causes of death were all in flux and influenced recorded cause of death narratives. Some influences are readily seen in recorded Massachusetts causes of death over the last half of the nineteenth century (Anderton and Leonard, 2004; Beemer et al., 2005). The primary resources for this earlier research and the Grammars of Death project are the literal recorded causes of death in Northampton and Holyoke Massachusetts 1850-1912 along with a wide range of regionally focused archival sources regarding physicians, medical practice, business interests, and public health discussions over the same period. Unlike earlier analyses that relied on a limited sample of death records over the period, the Grammars of Death project has computerized all of the death records for the two towns from 1850-1912 for the reliable analysis of longitudinal

mortality and cause reporting trends. Using both recorded causes of death from this mortality database and a collection of archival resources, available through a web accessible database developed through the project (Biblioweb™), this paper focuses on one specific intentional and international influence in the shaping of nineteenth-century grammars of death, the organized effort of European medical professionals to instruct American physicians in proper nosological nomenclature through explicit references and sanctions in the International Classification of Diseases (ICD), which arose from the Bertillon Conferences.

Although social histories of American medicine acknowledge the influence of European medicine on nineteenth-century medical institutions, training and practice, many of the most widely cited of such histories are surprisingly brief in their treatment of these issues (e.g. Starr, 1982; Cassedy, 1986). In these general histories there is no discussion of the international efforts to explicitly guide and shape American medicine through such institutional efforts as the Bertillon Conferences. The Bertillon Classification was actually released at the International Statistical Institute in Chicago in 1893. The American Public Health Association recommended decennial revisions, which (under a variety of titles) were published by the federal government of the United States soon after discussions of the subsequent international Bertillon Conferences (ICD1a/2; Treasury Department 1900, Bureau of the Census 1902, 1910). These classifications were largely dominated by European medical practice and nomenclature. And, they specifically excluded the variety of American therapeutic perspectives which remained in use by a variety of homeopathic, chiropractic, naturopathic, hydropathic, and other, practitioners. The ICD was introduced as a monolithic nomenclature into a plurality of therapeutic perspectives which emerged in the decades surrounding the Civil War and had resulted in a “cacophony of new-found diseases” (Swedlund et al. 2005) These classifications were, however, formally adopted and are reflected in Massachusetts nosology soon after publication by the federal government.

American death records generally provide a salient test of the efficacy of the ICD in revising the nosology conventions of physicians. Importantly, the early ICD versions also singled out several specific causes of death as incorrect, imprecise and in need of correction. These proscriptions and prescriptions provide an intervention that can focus inquiry onto specific causes of death, which are most likely to reflect any impact the ICD might have had on the prevailing nomenclature. Also of note, U.S. physicians, and none others, are specifically singled out in the early ICD for such corrective advice regarding nomenclature. Some such causes of death, de-legitimated by the ICD after being entrenched in Massachusetts nosologies, were subjected to even stronger sanction. The ICD includes a suggested sanction of returning records to physicians for correction to address these most severe reporting abuses. Thus the intervention of the Bertillon nosological nomenclature, with specific instructions to American physicians and suggestions for corrective sanctions to prohibit reporting abuses, provides a unique opportunity to assess both the history and basis for the specific internationally divergent classifications, and any impact the European medical community's corrective efforts through the ICD had on the errant ways of American physicians and the longitudinal reporting of mortality.

Corrective advice in the ICD clearly reflects changing medical standards. The single most frequent corrective advice in ICD1a/2, for example, is to advise returning many different causes of death to the physician for a clarification of whether the cause was puerperal. Some correctives are clear that common symptomatic terms in use by

U.S. physicians should be abandoned in favor of more precise etiological classifications. Regarding “inanition,” for example, ICD1a/2 offers the advice “When the word is used, as it frequently is in the United States, to denote exhaustion from defective nourishment, due to disease or congenital or senile debility ... [t]he term is indefinite and otherwise objectionable, and the disease causing inanition should be given.” In our analyses we examine both selected general correctives, such as the encouragement of additional adjectival use of “puerperal” as a qualification for a number of conditions, and specific correctives or sanctions to change the core use of nomenclature, such as discouragement of general uses of “inanition.”

Our analyses are presented in four specific steps. In the first part of this paper we present a formal qualitative analysis and interpretation of early correctives in ICD1 and ICD1a/2 themselves. This analysis attempts to characterize the general nature of the correctives; whether they reflect underlying differences in medical philosophies, theories or cultures; and the orientation toward any specific audience for the correctives, etc. As a second step in our analysis, we select correctives from the qualitative investigation that either address major cause of death reporting categories in use or have particular historical interest to evolving medical histories (e.g. changes in therapeutic or etiological perspectives) and we provide a brief archival history of the prior use of the terms addressed by each of these correctives in the Northeastern U.S. and more specific regions of western Massachusetts. As a third step, we then conduct a quantitative interrupted time-series design analysis of trends in targeted nomenclature before and after the ICD was effectively adopted to evaluate the impact of the ICD correctives on practical use of nosological nomenclature. In this analysis we examine evidence for a marked immediate change in the use of terminology (quantum shifts or spline shifts), shifts in the direction of growth in the use of terminology (shifts in trend), and more gradual innovation and diffusion models (e.g. mixed exponential shifts) for targeted nomenclature with sufficient frequency of use to provide sample sizes sufficient for statistical analysis. Finally, as a last step in the analysis, for cases in which there is evidence of ICD influence on selected major causes of death, we will provide preliminary models indicating the extent to which the ICD correctives influenced major cause of death groupings generally relevant to theories of the nineteenth-century epidemiological transition.

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