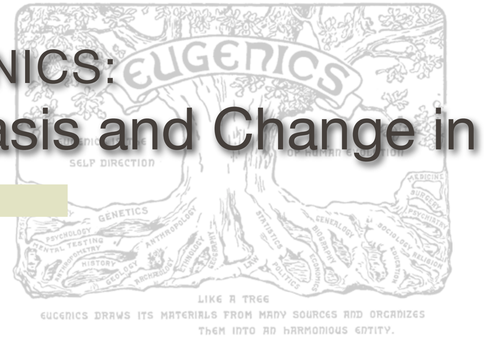
ANATOMY AND EUGENICS:
A Case Study of Stasis and Change in Classificatory Structures



K O R G U W

STASIS AND CHANGE
1876-2010

Rationale

Digital collections are described and placed into order. However, there is no guarantee that order will remain intact. Classification schemes change over time. What then is the nature and impact of such changes on the practice of classification? Can we learn from 140 years of classification work that could inform the design of systems that can accommodate change?

Research Question

What does change and stasis look like in extant subject classification schemes?

Research Design

To account for classification scheme change and changes in classification practice we examined two sources of evidence. First we looked through the DDC's "Relativ" Index for occurrences of both the word *eugenics* and the word *anatomy.* We then recorded which classes were available to the classifier for these terms. These classes appear as light blue boxes to the right. The editions are displayed as brown circles and we show their periodicity against the timeline (at the bottom of the charts). This constitutes our "analytical" data - what classes are possible and when they are possible (recorded as both edition and year).

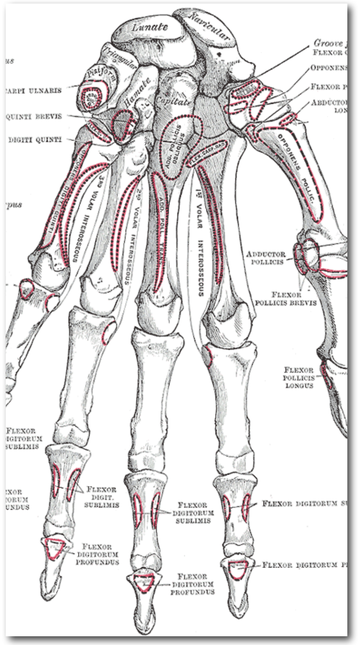
We then, using Z39.50 protocol queries searched online public access catalogues for bibliographic records containing two criteria: (a) our terms *eugenics* and *anatomy* as first subject headings, and (b) bibliographic records that used DDC numbers. We eliminated duplicate records and via inspection deleted erroneous data (e.g., badly formed dates such as 1080 or nil values). These instances of classed documents appear as dark blue diamonds.

Assumptions and Findings

We assumed going into this study that *eugenics* was a good example of disciplinary change since it was, in 1911, possible to say that it was a biological science. Likewise we assumed that anatomy has changed little as a discipline (though new disciplinary approaches could be added, like history of anatomy, it has always remained a biological science). To some degree we found this to be the case. As can be seen from the charts, *anatomy* has two characteristics of stability (1) repetition of class position over time and (2) less scatter in document position over time. *Eugenics* does not exhibit these same characteristics when compared to *anatomy*.

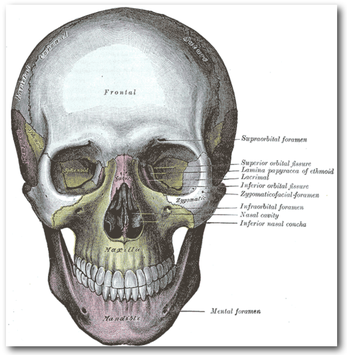
When a class exhibits the characteristics of *anatomy* in this case, we can say there is collocative integrity. This means the functional requirement of classification to identify a place for a subject is maintained over time if the classification scheme has collocative integrity.

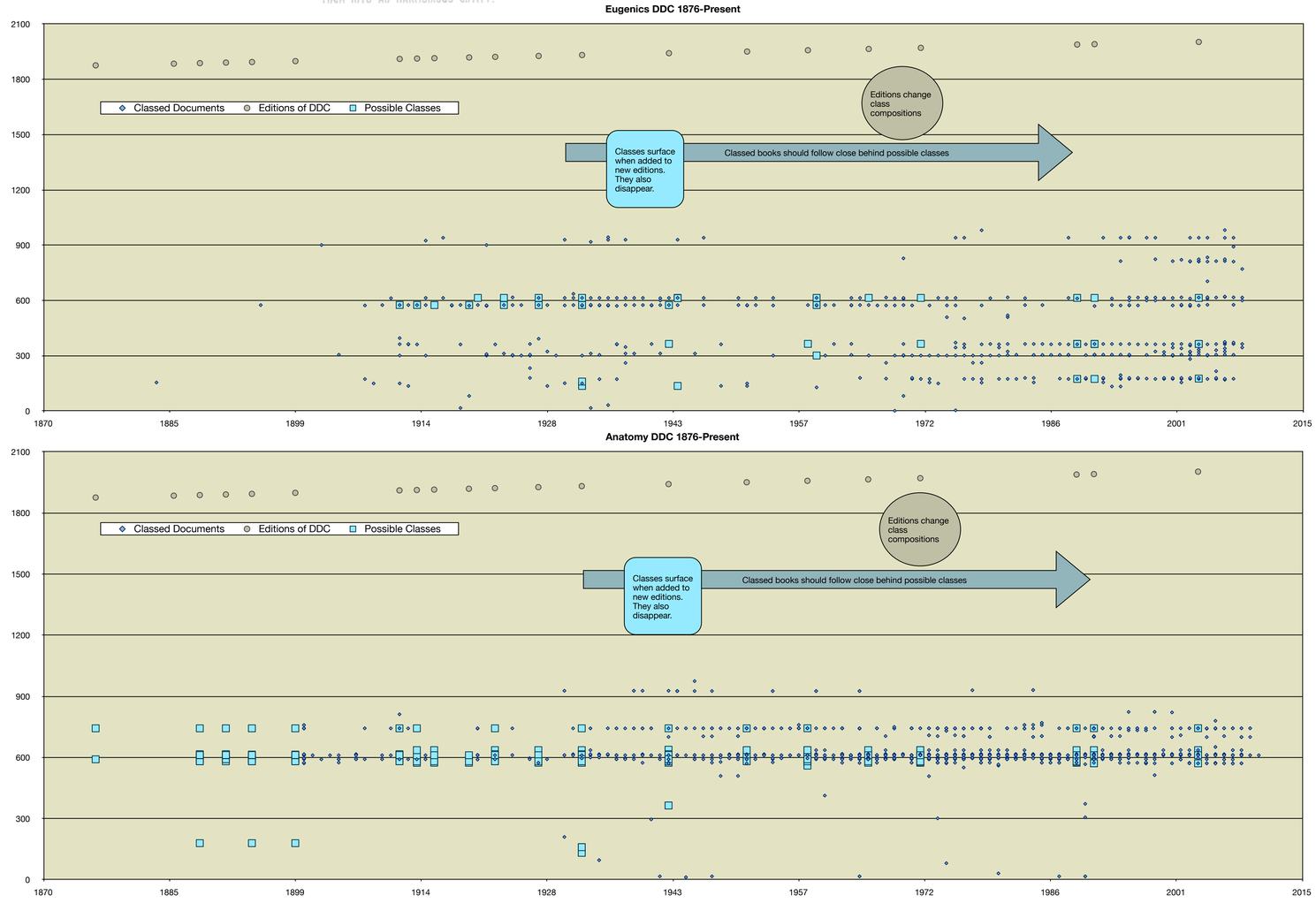
We also see the problem change can cause in schemes, and that the subject ontogeny (development over time) might require more recordkeeping so that classifiers can manage collocative integrity.



Previous work

Classification scheme versioning is an important concept in theory and practice [1,2]. Work on describing how representation of subjects change in schemes is important for functional as well as ethical reasons [3, 4]. To date, analytical models have been developed [2, 5], but little empirical work has been done. This is the first step toward that work.





References
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