



Comparative Classification

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Comparative Classification

First, I want to acknowledge that I am speaking to you from lands of the Coast Salish people.

Second, thanks to Joseph Busch for putting this panel together.

Third, I want to acknowledge the depth of expertise in this room, and I hope my offering can be of use.

Comparative Classification

To know one language is not know none.

In the spirit of Max Müller (1823-1900)

Comparative Classification

We compare to understand the internal workings and contextual factors that make a classification *what it is and how it works*.

This is essential for us to understand whether we are building and deploying *good or useful* classification schemes.

The internal workings of a scheme are its semantics and structure.

The contextual factors include technological context, time, culture, purpose, and use (among other things).

Comparative Classification

I see three major *basic kinds* of comparison available to us:

1. Comparison of a scheme over time
2. Comparison of two or more schemes at the same point in time
3. Comparison of a scheme *repurposed*

NB: These can be combined

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I have said this same thing elsewhere as part my conception of *second-order classification theory*, viz.

“1) how schemes change over time and how we update them, 2) how installed schemes interoperate, and 3) how systems change when they change context (reapplied or reengineered),” (Tennis, 2015 p. 246).



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Scheme Change Over Time

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Scheme Change Over Time

EUGENICS used to be a biological science in the DDC (Tennis, 2012)

GYPSIES, NOMADS, and OUTCAST RACES were an *other* class in DDC because before the editors separated geopolitical divisions and language and race and ethnicity there was no place for them. (Tennis, 2016a)

Schemes can perpetuate bias and systemic discrimination as well (Higgins, 2016)

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Scheme Change Over Time

SUBJECT ONTOGENY

Subject ontogeny is the life of the subject in a scheme, like the DDC. Examining how a subject is treated over time tells us about the anatomy of a scheme. For example, GYPSIES as a subject has been handled differently in different editions of the DDC. (Tennis, 2002).

COLLOCATIVE INTEGRITY

If an indexing language changes over time, how does that affect the power of the scheme to collocate? Is there a threshold below which a scheme becomes useless?

SEMANTIC GRAVITY

Linked to collocative integrity, semantic gravity is the weight of the outdated class number in cataloguing practice. Often libraries will keep an old number because they think it helps users.

EPISEMANTICS

Episemantics considers semantic effects outside of the indexing language. The idea of episemantics is to account for meaning as it changes over time outside of the scheme, and relate that to the scheme. (Tennis, 2016b)

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Comparing two or more schemes

Ideal type comparison

Comparison in order to interoperate (conversion)

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More than one scheme laid side by side against an ideal type (Ranganathan, 1967) e.g.,

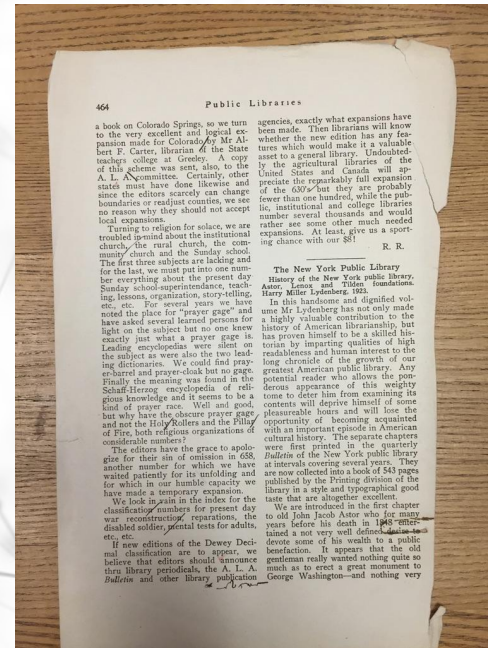
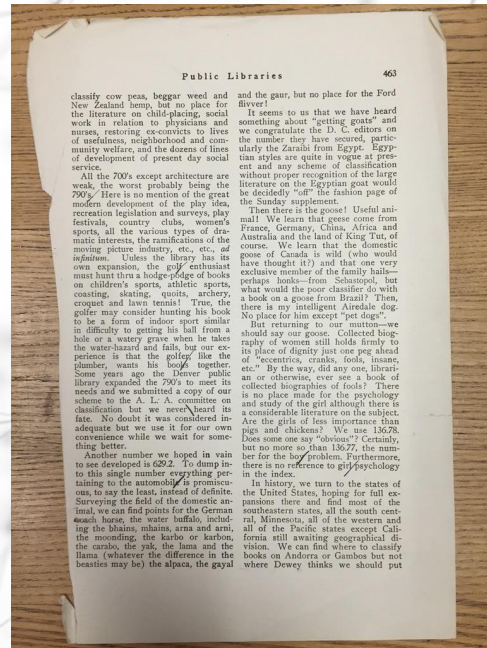
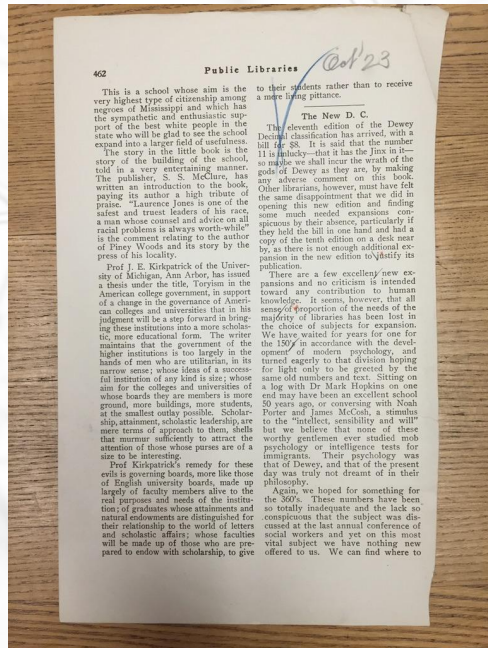
Rigidity (the degree to which we are free to express subjects)

Resilience (ability to add topics and hence numbers)

Parsimony (how short are the class numbers)

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A single scheme against an ideal type (Reece, 1923)



Here is a review of DDC by a librarian

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Comparison for Interoperation (cf., Zeng, 2016)

Both semantics and structure are examined

Various techniques to *interoperate*

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Comparison for Interoperation

Direct Scheme to Scheme e.g.,

Mapping (conversion, crosswalk) (ALA, 2022)

Derivation (Zeng, 2016)*

Intermediary Tools e.g.,

Switching (Lancaster, 1986)

Supra-Schemes (Neville, 1970)

Universal Sources Schemes (Soergel, 1974)

Core Ontologies (Doerr et al., 2001)

More at Zeng (2016)

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Repurposed and Reengineered e.g.,

Techno-Structure Reengineering: wrapping pre-semantic web schemes in RDF/XML (Soergel et al., 2004)

Collection assessment repurposing: quantitative measures of collections using scheme numbers

In both cases we compare by reimagining the purpose of the scheme, and from there interrogate the original intent beside the reimagined one.

Comparative Classification

Comparing classification opens our eyes to our assumptions about the mechanics and motivations of our knowledge organization work.

I look forward to further conversation on the topic.

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Thank you

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