Tensions Between Language and Discourse in North American Knowledge Organization

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ABSTRACT: This paper uses Paul Ricoeur's distinction between language and discourse to help define a North American research agenda in knowledge organization. Ricoeur's concept of discourse as a set of utterances, defined within multiple disciplines and domains, and reducible, not to the word but to the sentence, provides three useful tools for defining our research. First, it enables us to recognize the important contribution of numerous studies that focus on acts of organization, rather than on standards or tools of organization. Second, it provides a paradigm for reconciling the competing demands of interoperability, based on widely-used tools and techniques of library science, and domain integrity, based on user warrant and an understanding of local context. Finally, it resonates with the current economic, political and social climate in which our information systems work, particularly the competing calls for protectionism and globalization.

1. Introduction

As the North American chapter of the International Society for Knowledge organization (ISKO) held its second symposium at Syracuse in June 2009, the scholars and practitioners in attendance found themselves negotiating a familiar tension between universal and local perspectives. On the one hand, the presenters attempted to define a collective research agenda that held special relevance for North American knowledge communities: on the other hand, they strove to situate that agenda within the broader context of international research and practice that characterises knowledge organization as a field and ISKO as a forum for that field. Furthermore, they showed a profound awareness that all practice, whether global or local, draws, not only on contextual knowledge, but on universal principles such as hierarchy, synonymy, warrant, syndetic structure and faceted classification. Thus specifically North American practice was analyzed through such general prisms as Ranganathan's facet analysis (La Barre 2009), and the visualisations of domain analysis (Smiraglia 2009). From the other direction, international theory and practice were studied through specifically North American traditions such as the philosophical pragmatism of Peirce and James (Dousa 2009) and the evolution of the *Dewey Decimal Classification* (Green 2009). The presentation which formed the basis of this paper (Campbell 2009) uses a theory of language posited by Paul Ricoeur in 1977 to link this current tension between the global and the local to our traditional tendency to view subject tools as "languages." Ricoeur's attempt to expand views of language beyond the purely semiotic realm provides a useful guide for describing and defining North American knowledge organization research in the coming decade. In particular, Ricoeur's distinction between semiotics and semantics—between language as a self-enclosed, self-referential system and discourse as an open, multi-disciplinary array of speech events—suggests productive ways of negotiating local and global perspectives in both research and practice.

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Familiarity with specific professional and knowledge domains has long been recognized as an essential part of information organization, particularly in the understanding of literary and user warrant (Lancaster 1986) and the provision of services for special libraries (Foskett 1966, xiii). However, the very act of investigating context can be seen as the application of professional tools that are distinct from that context. In 1999, Marcia Bates (1045) argued that representing information requires a specific skill set which is distinct from actually "knowing" the information, and defended the distinction by comparing information professionals to professional actors:

> We take it for granted that when we see a film or television program like "ER" ("Emergency Room"), that it is actors who portray the physicians, because that is the way it has always been done .... In like manner, *representing* information—whether you are indexing or formulating a search strategy or helping someone articulate what they want to find—is different from *knowing* the information .... Creating databases and catalogs involves creating representations of forms of information.

This familiar tension between specific subject knowledge and general representation strategies has acquired a fresh resonance in 2009, given its resemblance to the tensions between global and national interests in North American economies, and the conflicting arguments for protectionism and for free trade in the wake of the recent world recession. Economic hardship has created fresh barriers on a continent previously dominated by free trade agreements such as the North American Free Trade Agreement (NAFTA). As massive government spending programs attempt to stimulate moribund economic sectors, a fresh spirit of protectionism, amplified by patriotic appeals to buy nationally and environmentally-conscious appeals to eat locally, has cooled our enthusiasm for acting and interacting as a global community, governed by global standards.

As this new regionalism conflicts with global perspectives, knowledge organization will reflect such conflict in its practices, just as the North American Industrial Classification reflected free trade and harmonisation in the past (Campbell 2003). This analysis, therefore, will use Ricoeur's language theory to pose a distinctly North American question. How can our information systems establish optimal levels of interoperability between one system and another: interoperability that enables community members to gain access to global information resources, while still preserving the data structures, information models and community affordances that make their systems a manifestation of their distinct cultures and communities? And how can the North American knowledge organization community establish research that supports information professionals as they work to reconcile global and local perspectives?

2. Subject access systems as languages

In her ambitious survey of the intellectual foundations of information organization, Elaine Svenonius (2000, 3-6) identifies three distinct strands of thought that underlie most of our knowledge organization theory and practice:

- systems theory, articulated by Ludwig von Bertalanffy and popularized in information science by Charles Cutter, resulting in concepts of the information system as a holistic structure, governed by a specific purpose, achieved through the operation of general laws and principles;
- the philosophy of science, pioneered by Cleverdon and resulting in information retrieval metrics such as precision and recall; and
- language philosophy, pioneered by Wittgenstein's language games and Kaiser's indexing, which applied linguistic concepts such as vocabulary and syntax to the task of information organization.

While the bulk of this analysis will draw on the linguistic roots of knowledge organization, it is useful to recall the other two traditions as well. From systems philosophy, we can derive a model of productive interaction between global and local perspectives. A good information system presumably works to serve a purpose derived from, and informed by, its embedding domain, and thus derives its very existence from local, contextual needs and practices (Svenonius 2000, 3-4). At the same time, the system accomplishes this purpose through the application of general principles. North American knowledge organization researchers and practitioners should aim for a similarly productive mix of perspectives. From the philosophy of science, we can derive, not only a rigorous attention to methods of inquiry, but also a commitment to studying not just information principles, but also information acts. Precision and recall metrics, by their nature, are generally performed on concrete phenomena in the form of pre-existing documents, thus paving the

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way for Ricoeur's focus on discourse, as well as on language.

The linguistic dimension of subject access tools appears in such terms as "controlled vocabulary" and "thesaurus," and the use of these tools involves the inherently linguistic concepts of vocabulary and syntax: the establishment of authorized terms and their inter-relationships, and the use of a standardized syntax for concatenating terms together to form classification numbers or precoordinate subject headings. Other theorists such as Blair (1990) have explored the similarities between information description on the one hand and semiotics and linguistic analysis on the other. Others have linked subject access to postmodernism (Mai 1999) and post-structuralism (Campbell 2008). The use of linguistics as a paradigm for subject access systems has placed linguistic theory, with its strengths and its limitations, close to the heart of subject analysis. For this reason, Paul Ricoeur's analysis of this linguistic tradition provides a means of enabling us to recognize some of the limitations of classical linguistics, and to prevent those limitations from hindering the growth of an active and vital North American research agenda.

3. The linguistic approach: Saussure and Ricoeur

In his highly-influential *Course on General Linguistics* (1916), Ferdinand de Saussure articulated numerous propositions that have since been widely adopted, not as empirical evidence of how language works, but as metaphors for how language-like systems such as subject tools work. First, a language can be considered in two separate ways. For Saussure, linguistics is primarily concerned with language as *langue*, which he defines as the entire system of linguistic units and the code that relates them together: he distinguishes this "self-contained whole" (1985, 29) from the "executive" domain of specific "speech acts," which he terms *parole* (32). This distinction, for Saussure, separates the individual from the social and the incidental from the essential: "Language is not a function of the speaker; it is a product that is passively assimilated by the individual. ... Speaking, on the contrary, is an individual act. It is willful and intellectual" (33).

Second, Saussure argued that the "sign" was a combination of concept and sound-image, or of "signified" and "signifier." Furthermore, he argued that the sign is intrinsically arbitrary, and derives its meaning, not from any innate relationship between the word and the thing, but from the differences between words in the *langue* system. As Ricoeur points out (1976, 5), the sign rests on a play of differences: "in such a system no entity belonging to the structure of the system has a meaning of its own; the meaning of a word, for example, results from its opposition to the other lexical units of the same system."

In the first of a series of lectures delivered at Texas Christian University in 1973, Paul Ricoeur takes issue with Saussure's linguistic theory: not with its importance or validity, but with the ensuing impact Saussure's treatment had on later linguistic theory, and its effect on questions of words and truth. For Ricoeur, these questions go back at least as far as Plato, who debated, in such dialogues as *Cratylus*, the *Sophist* and the *Theaetetus* how false statements are made. Plato, Ricoeur argues, concludes that we cannot understand falsehood solely through the meaning of words; the paradox of falsehood lies in the act of making statements, and hence in the sentence, not the word (Ricoeur 1976, 1). For Ricoeur, Saussure's emphasis on the importance of *langue* had blinded theorists to the importance of *parole*. *Langue*, Ricoeur argued, had the advantage of being self-contained and theoretically finite, and generally studied within a single discipline: that of linguistics. *Parole*, on the other hand, is theoretically infinite and, as an event, can take place and be studied within a variety of disciplines. Ricoeur suggests an alternative, two-dimensional approach to language which rests on two irreducible entities: the semiotic "sign," which emerges through the *langue*, and the semantic "sentence," which emerges from the speech-acts that constitute *parole,* and which he terms "discourse." For Ricoeur, the sentence is a basic and intrinsic unit related to semantics, rather than semiotics. While a sentence is composed of words, its propositional content cannot be reduced to its words: it remains a union, however succinct, of a noun and a verb (Ricoeur 1976, 10).

When we take Ricoeur's two-part transformation of Saussure's linguistic theory and transfer it into the realm of subject tools and knowledge organization, a suggestive similarity presents itself. Language deals with signs and sentences: with the semiotic units of a closed, self-referential system, and with the semantic units of spoken and written discourse, embedded in their social, cultural, political and economic context. Similarly, Beghtol draws on Robert Fairthorne's important distinction between two dimensions of "aboutness," the subject content of a document that must be rendered using the signifying system of the subject tool: "Extensional aboutness, in Fairthorne's terms, is the inherent subject of the document; intensional aboutness is the reason or purpose for which it

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has been acquired by a library or requested by a user" (Beghtol 1986, 84).

This relationship has always been a complex one, as subject cataloguers attempt to negotiate the anticipated needs of the user with a perceived "essential" content that could be put to a variety of uses. Some work on the assumption that "a document has an intrinsic subject, an 'aboutness', that is at least to some extent independent of the temporary usage to which an individual might put one or more of its meanings" (Beghtol 1986, 85). Others operationalize aboutness as an estimate about probable search behaviour (Maron 1977, 38), while still others argue that we should be moving from a document-centric (and presumably extensional) approach to a domain-centered, contextual, and implicitly intensional notion of aboutness (Mai 2005, 599). These varying perspectives situate themselves along a distinction between inside and outside, and between being and doing. Some see the subject as an essential entity distinguished by its differences from other entities in a defined ontology of subjects: "This document is about theories of economics as opposed to education, and its authorized term is **Economic theory**." Others see the subject as a reference to an external context which determines the priority of a subject's facets: "Our users will want this document for its treatment of economic dimensions of educational policy."

4. Tensions between language and discourse in North American knowledge organization

Ricoeur suggests that the prominence of semiotics in the twentieth century has prevented theorists of language from investigating discourse to its full potential. His efforts to rectify that bias have promising implications for viewing North American research, which has already shown how specific acts of classification and description can be assembled and analyzed for patterns. Existing catalogue records have provided fruitful ground for emerging theories of the work (Smiraglia 2001), for the study of OCLC catalogue records (Miksa et al 2006), and for hyperlinking patterns (Vaughan and Thelwall 2003). North American researchers are well-primed to assemble data on the discursive acts of knowledge organization, through such tools as OCLC, multiple library catalogues accessed through the Z39.50 protocol, and the growing archives of harvested metadata records accessed through the Open Archives Initiative. User tagging systems have provided rich new sources of user-centered knowledge organization in the areas of images and social bookmarking sites (Besiki and Jorgensen 2008; Kipp and Campbell 2006). And the Wayback Machine of the Internet Archive provides longitudinal evidence of knowledge organization on websites.

5. Standard tools and special interests

In particular, North American researchers could use the distinction between system and statement, between semiotics and semantics, as a way of finding a uniquely North American harmony between international standards and domain-specific interests. This distinction is frequently fraught with conflict between global standards and specialized needs. Jesse Shera (1965, 70), writing in 1951, likened this distinction to roads and highways in the United States, some of which are administered at a national level, and others at state or local levels. He argued urgently that libraries are obligated to protect and administer the general level of bibliographic management, and:

> To prevent ... the continuing trend toward the further atomization of this general level through the proliferation of isolated, independent, and uncoordinated specialized bibliographic services, created without reference to bibliographic needs at the general level, and administered, as they have been in the past, according to ad hoc local procedures.

The field of Library and Information Science has traditionally excelled at the creation and study of standard tools which enable us to create uniform descriptions of subject content. Whether they be universal schemes such as Dewey's *Decimal Classification*, The Library of Congress *Classification* and the *Library of Congress Subject Headings,* or subject-specific schemes such as *MeSH*, the *NASA Thesaurus* and the *Art and Architecture Thesaurus*, these widely-used tools have large vocabularies and intricate and sophisticated syndetic structures that lend themselves to analysis as semiotic systems. This talent for building large subject systems has manifested itself on the Web in the form of library application profiles for Dublin Core metadata, of the use of faceted classification in information architecture, and the growth of field-specific metadata schemes.

These impressive tools often appear to the practitioner as self-enclosed and consistent systems that, like Ricoeur's interpretation of *langue,* are the product of a specific discipline, in this case information science. We can assess their success at following prin-

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ciples of thesaurus construction, the consistency of their policies regarding equivalence, the rigour of their hierarchical structures, and their adherence to consistent facet orders. Furthermore, universal schemes such as *DDC* and *LCSH* have been analyzed for gender bias and other injustices (Olson 1998). Such studies typically use the structures, authorized vocabularies, and syndetic devices to chart the limits of what can or cannot be expressed within these subject languages, and showing how certain unarticulated presuppositions govern their use in the subject analysis process. These studies have had an important and beneficial impact on the revision and improvement of these schemes over the years: but while revising a vocabulary or classification may widen its range of possible utterances, it only addresses part of the issue. In addition to analyzing our potential utterances, we have to look at the utterances themselves.

Ricoeur's concept of semantics as a necessary partner to semiotics provides a conceptual frame for orienting numerous promising areas of research that look at what people actually do. First, focusing on acts helps us to investigate the enormous increase in personal information management that has extended from traditional practices onto the Web through Web 2.0 tools such as bookmarking systems. Equally important, the subject indexing and classification patterns of professional intermediaries can be explored in counterpoint to these new user-centered initiatives, through the availability of metadata harvesting sites.

North American researchers are also well-placed to address the problem of multilingual subject access. At the policy level, multilingual information access often appears to be a seamless process of translation at the system level, in which one term is mapped to an equivalent term in another language. In reality, the implementation of multilingual access is far more complex and ambivalent, and North American scholars are ideally placed to study how the uneven implementation of linguistic plurality policies is manifested in our knowledge organization systems. Researchers have noted unexpected anomalies in the transformations of bilingual catalogues (Arsenault and Menard 2007), and overt commitments to multicultural access are often belied by the rudimentary state of cataloguing and subject access to non-English documents.

North American researchers also need to address a growing trend of regarding information creation separately from its discursive context. The long-term contraction of funding for libraries has given rise to outsourcing, in which information communities end up suffering at the hands of their own skill in standards creation. The sharing of catalogue descriptions has been an intrinsic part of information organization at least since the rise of MARC, and the development of semantic Web tools also rests on the notion of data retooling and reuse. But cooperative cataloguing was never intended to suggest that library records are solely the product of enclosed, self-referential descriptive processes, or that they can be created in a vacuum. Shared cataloguing ventures have always assumed that libraries would use the time saved by downloading basic records to shape those records into discursive artifacts appropriate for their libraries. Outsourcing, on the other hand, assumes that there is no discourse specific to the information context.

6. Allocutionary and interlocutionary acts

Finally, Ricoeur's treatment of discourse offers us a chance to situate knowledge organization within a multidisciplinary framework that links our concerns with domains, warrant, and aboutness productively with concerns posed in other fields. Discourse, in Ricoeur's sense of specific, semantic statements, leads us to consider documents, in the tradition of Suzanne Briet (1951), and later Bowker and Star (1999), Day (2001), and Frohmann (2004). Viewing classification and organization as specific statements about other statements enables us to embed knowledge organization in a kaleidoscope of local contexts. And while we can certainly view documents as artifacts which contain some innate meaning, distinct from the utterer's meaning, Ricoeur also posits a complex relationship between the meaning inherent in discourse and the meanings that we extract from it.

On the one hand, Ricoeur argues for the existence of the illocutionary act: what the author or creator of the document meant, or intended. By considering the illocutionary act of discourse, we can link knowledge organization to fields that explicitly deal with authorial gestures. Literary studies in general, and genre theory in particular, have a rich vocabulary for dealing with authorial intent, and these fields have begun to act upon information studies in general (Crowston and Williams 2000; Toms, 2001).

On the other hand, Ricoeur also considers the allocutionary act: what the user takes from discourse, or what he or she is expected to take from it. Knowledge organization has traditionally made extensive use of this allocutionary perspective in its notions of user warrant and intensional aboutness; further connections could be made with reader-response criti-

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cism in literary studies, and with media theory, particularly with Stuart Hall's classic taxonomy of responses to media messages (2001).

While these opportunities are enticing, we must also recall that addressing local and global issues is deeply relevant to the North American intellectual and economic environment at present. On the one hand, our information environments grow progressively more interlinked, and North American researchers must continue to explore the available options and instruments that enable communities to assert their own needs and identities over collections described by universal standards. We need to track the degree to which options built into tools like *DDC* are actually employed; the extent to which Canadian libraries use the special areas of LCC set aside for Canadian history and literature. We need to theorize the optimal relations between human- and machine-readability in specific community settings.

At the same time, we must remember that our work does not exist in a vacuum, and we must take care to prevent our concern for local users and specific domains from collapsing into unforeseen allegiances, owing to unforeseen resemblances. Knowledge organization scholars must make considered decisions about how far to reflect global and local concerns in their research and their systems. Economic and cultural protectionism constitutes a perfectly understandable response to concerns about recession, carbon footprints and fears about global pandemic. However, North American scholars in all fields must make informed and considered decisions about how such concerns will be embedded in their tools and activities.

7. Conclusion

Concerns for context, for diversity, and for flexibility have been present in the professional and academic communities of knowledge organization for a very long time. Likewise, the concerns for clear design, for international standards, and for enhancing universal access to information through technological and terminological continuities have figured large in North American information research. As the North American knowledge organization community continues to assess its heritage and plan its future, Paul Ricoeur's theories of language, while far-removed from the particularities of our field, may provide a useful orienting distinction. Our concern for developing large, inclusive, interoperable and standard subject access tools must be counterbalanced by an equally close look at what information communities actually do with these tools. The conceptual clarity and discipline of information science that guide the creation of subject languages must co-exist alongside the inconsistent, haphazard and multidisciplinary context in which these languages are used. Like the most enduring human communities, we make tools and we use them. We combine together, but we don't dissolve into each other. As a professional field, and as a discipline of intellectual inquiry, North American knowledge organization embodies both wide sympathies and local loyalties.

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