Revitalizing Comparative Library and Information Science: Theory and Metatheory

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Abstract

Purpose – This article is intended to stimulate theoretical reflection in international comparative studies in library and information science (comparative LIS).
Design/methodology/approach – The need for theory is emphasized and shortcomings in comparative LIS in respect of theory are identified. On the basis of literature from other comparative disciplines, a framework for examining issues of metatheory, methodology and methods is constructed. Against this background the role of theory and metatheory in the literature of comparative LIS is evaluated. General observations are illustrated using examples selected from comparative studies in LIS.
Findings – Much of the literature of comparative LIS is atheoretical and based on assumptions that reflect naive empiricism. Most comparativists in LIS fail to link their work to that of colleagues, so that no body of theory is built up. Insufficient use is made of theory from other social science disciplines. There is a little evidence of awareness of metatheoretical assumptions in the sociological, teleological, ontological, epistemological and ethical dimensions.
Research limitations – While general observations are presented about the literature of comparative LIS, this is not a bibliometric study. Issues of methodology and method are not dealt with.
Practical implications – Recommendations are made for improving teaching and research in comparative LIS. Concepts presented here are of value to the wider LIS community, particularly in internationally oriented research and practice.
Originality – Since the 1980s there has been very little conceptual and methodological reflection on comparative LIS. This article alerts the LIS profession to new thinking in other comparative disciplines.

Keywords – Comparative librarianship; Research; Theory; Metatheory; Evaluation
Paper type – Conceptual paper

Introduction

It is not difficult to find literature deprecating the state of research in library and information science (LIS). In fact, students are likely to encounter somewhat discouraging comments in the opening chapters of research methods texts in LIS (e.g. Connaway and Powel, 2010). We are not alone. Writing about social science methods in educational curriculum research, Anyon (1982) complained that much of the research in her field was inadequate. She attributed this to what she considered the dominant paradigm in educational research, namely "naive empiricism", a term she attributed to Bernstein (1976), but which goes back to Popper's influential critique of "the naïve empiricist" (Popper, 1961, p. 106) . Anyon identified two kinds of naive empiricism [1]:

The first kind is the simple emphasis on collecting and processing data, and the building up of ad hoc generalizations that attempt to explain the data. These explanations are in terms of the data, or they are in terms of observed regularities between characteristics or variables. ...[T]his type of social science is somewhat circular, and such explanations are only, in the most naïve way, explanatory… merely descriptive of the relationships that they discuss. The second type of naïve empiricism emphasizes the construction of sophisticated hypothetical-deductive systems based on the regularities that have been observed. These hypothetical-deductive systems… are more complicated but … still descriptive and not explanatory" (Anyon, 1982, p.34).

Anyon argued that data are not objective, since what one collects or counts depends on one's conceptual scheme. Thus the first kind of naive empiricism consists in collecting and manipulating data that one finds 'out there' without any awareness of the assumptions on which such research activities are based. The second kind of naive empiricism is concerned with reliance on "theoretical constructs or abstractions that are not embedded in a developed theoretical system" (p.35). Such theory does not constitute adequate explanations of social reality.

It is argued here that much international comparative research in LIS is also characterized by naive empiricism.[2] Often, data are being collected and patterns are observed without being framed theoretically (cf. McKechnie and Pettigrew, 2002). Sometimes theories are constructed that are essentially circular, referring only to their own theoretical constructs and not connecting to socially explanatory theory. This is coupled with a widespread lack of awareness of the metatheoretical assumptions implicit in international comparisons, which in turn leads to methodological decisions being taken by default. The upshot is that the body of work comprising comparative LIS lacks connectedness and has so far failed to contribute as much to the theoretical basis of library and information science as it should have.

This begs the question, "Why bother with comparative LIS?" The profession initially had high expectations that comparative librarianship would provide theoretical insights into library phenomena. A considerable investment was made in developing a theoretical and methodological basis for the field, but comparative LIS has failed to develop as was initially expected. It may be that for LIS it was a dead end, and that it is not worth attempting to resuscitate it. On the other hand, comparative studies are significant and useful components in other disciplines such as political science, education, and social policy. Librarianship and information work is increasingly affected by international and global factors. Many comparative studies are being conducted in LIS. The observation that many of these studies are not conducted on a sound theoretical and methodological basis suggests that an investment in such a foundation may well be worthwhile.

Development of comparative librarianship

Comparative librarianship developed in close association with international librarianship. The emergence, growth and relative decline of these two fields has been sketched elsewhere (Bliss, 1991, 1993a; Lor, 2010; Lor and Britz, 2010; Lor, 2012). Bliss (1991; 1993b) reported on a bibliometric study of international librarianship, under which she included comparative librarianship. She charted the growth of the literature as reflected in *Library literature* during

1958-1990, showing its origins in the late 1950s and early 1960s, a growth spurt during the late 1960s and early 1970s, and a subsequent decline interrupted by "erratic" fluctuations. Unfortunately Bliss provided no thematic analysis, so that it is not possible to distinguish between international and comparative librarianship. Neither did she provide an analysis of the literature by quality or genre, so that no distinction is made between anecdotal reports in the more popular professional journals and the more scholarly literature. However, inspection of the literature shows that international and comparative librarianship developed as identifiable fields, if not sub-disciplines, in the 1960s and 1970s. In comparative librarianship a considerable literature took shape in the 1970s and 1980s, in which its importance and value was emphasized and in which methodological guidelines were developed (Simsova and MacKee, 1970 and 1975; Collings, 1971; Danton, 1973 and 1977; Parker, 1974; Harvey, 1977; Keresztesi, 1981; Simsova, 1982). These authors tended to cite one another and comment on one another's work, so that during this period a discernable nucleus of literature could be said to exist in comparative librarianship. However, much of the literature was concerned with attempts to distinguish between the two fields, a matter that was not definitively resolved. By 1977 Danton felt that enough had been written *about* the two fields but that actual work *in* comparative librarianship was meagre. He suggested. "Let's call a moratorium on writing *about* the subject and devote our energies to doing comparative work" (Danton, 1977, p.13). Probably coincidentally, literature on international and comparative librarianship as fields of study (as distinct from work *in* these two fields) petered out in the 1980s, with some significant exceptions (e.g. Keresztesi, 1981; Krzys and Litton, 1983; and Bliss, 1993a, 1993b; Vitiello, 1996).

Initial inspiration for comparative librarianship had come from more established comparative disciplines. Danton (1973) reviewed work in comparative linguistics, law and education going back to the 19th century and including works in several European languages. Foskett's (1976) reader included readings from comparative social anthropology, religion, law, and linguistics, and several from comparative education. Elsewhere Foskett (1977) referred to comparative politics and law, but placed most emphasis on comparative education. Of all the comparative fields, comparative education was most often held up as a model for comparative librarianship. In her bibliometric study Bliss (1991, 1993b) found that only 13% of references were to literature other than LIS, and education accounted for 4.68%. Two texts on comparative education, by Bereday (1964) and Noah and Eckstein (1969)[3], appear to have been particularly influential, being not infrequently cited in writings on comparative librarianship. Comparative education is a well-developed field. A number of journals are devoted to it, e.g. *Comparative education review* (1957-), *Comparative education* (1964-) and *Current issues in comparative education* (1998-). Since 1970 there exists a World Council for Comparative Education Societies. Its membership comprises over thirty national professional associations devoted to comparative education.[4] Similar publications and forums exist for other comparative fields. Comparative librarianship lacks such a scholarly infrastructure. Only two English-language serial publications could be found that had titles referring to comparative librarianship. The *Journal of library history* (subsequently *Libraries & the cultural record*) briefly bore the title *Journal of library history, philosophy and comparative librarianship* (vol. 8, 1973 only).[5] Tthe newsletter of the International Library and Information Group (ILIG) of the Chartered Institute of Library and Information Professionals (CILIP) was initially named *Focus on international and comparative librarianship* (1967-2001)[6]. In 2002 it was renamed *Focus on international library and information work*. Although there are various LIS journals which publish articles in comparative librarianship, there are currently none specializing in the field.

While there has been little or no methodological discussion in comparative librarianship since the 1980s, other comparative fields have moved on beyond the essentially positivist perspective of Eckstein and Noah and their contemporaries.[7] They have continued to develop the conceptual and methodological basis for comparative studies (e.g. De Cruz, 1999; Dogan and Kazancigil, 1994; Hantrais, 2009; Landman, 2008; Pennings *et al*., 2006; Przeworski and Teune, 1982), and to sustain lively conceptual and methodological debates (e.g. Cowen, 2006; Crossley, 2002; Sartori, 1991; Schriewer 2006). In contrast, comparative librarianship has failed to develop a conceptual and methodological basis.

Purpose of this article

This article is intended to contribute to renewing theoretical reflection in international comparative studies in library and information science (comparative LIS) by examining its current state, with emphasis on the role of theory and metatheory. Lor (2010), following Danton (1973), used the term 'comparative librarianship' to refer to international (or cross-national)[8], cross-cultural and cross-societal studies in librarianship: the area of scholarly study that analyzes and explicitly compares library phenomena in two or more countries or in significantly different cultural or societal environments, in terms of contextual factors (social, economic, political, cultural, etc.), in order to distinguish and understand underlying similarities and differences and arrive at valid insights and generalizations.

For the purpose of this article the scope of comparative librarianship is delimited as follows:. (1) Following Ragin (1987, p. 1), 'cross-national, cross-cultural and cross-societal' are understood to refer to comparisons of "large macrosocial units": countries, societies, and cultures. Ragin sees this focus as characteristic of comparative social science. Thus a comparison of library development in French and English speaking Canada (which are large macrosocial units) would fall within the scope of comparative librarianship, while a study of information literacy instruction in a college library which serves students with many cultural backgrounds, would not. This implies that much of what is dealt with under 'multicultural librarianship' does not fall within the ambit of comparative librarianship. (2) 'Librarianship' is understood to include also the 'information science' end of the spectrum denoted by 'library and information science'. In short, this article is concerned with the systematic and scholarly comparison of phenomena in librarianship and information services in different macrosocial units, which may be national, social or cultural. Clearly, the label 'comparative librarianship' is inadequate to cover this field. However, to propose a better name is beyond the scope of this article.

This reflection on the state of comparative LIS is conducted against the background of conceptual development in other comparative disciplines, which offer a range of potentially relevant theoretical and metatheoretical insights, and to which frequent reference is made. References to comparative studies in LIS are drawn from a collection which at time of writing comprised 190 articles, dissertations, books and book chapters purporting to be comparative studies or flagged as such in bibliographic databases, with emphasis on the period 2005-2009. However, this is not intended as a bibliometric study. Items cited are intended as illustrative examples, generally chosen to reflect good practice. The scope of this article is limited to theoretical and metatheoretical concerns. Issues of methodology and method will be dealt with elsewhere.

Current state of comparative LIS

In spite of the lack of conceptual and methodological studies, research in comparative LIS continues to be published. This literature presents several problems. First, it is scattered and difficult to find. It proved difficult to identify international comparative LIS literature using the bibliographic databases (*Library and information science abstracts (LISA), Library, information science and technology abstract (LISTA)* and H.W. Wilson's *Library literature & information science full text*). The overlap of these databases was limited and many references were only discovered through serendipity.

A second problem is that much of what is found when searching for comparative contributions in LIS turns out not to be comparative. Danton (1973, p.129) identified five elements as "essential to satisfactory comparative study":

> 1. The phenomena being investigated must have fundamental similarity – they may not be wholly different.
> 2. The phenomena may not be completely identical
> 3. There must be absolute clarity concerning which particular characteristics (that is, aspects of libraries) are being considered, and this requires careful delimitation and definition.
> 4. There must be description and analysis of the similarities and differences among the various elements being compared.
> 5. There must be explanation of the differences.

While the first three of these criteria may frequently be satisfied, in many if not most cases the last two are not. A descriptions of LIS phenomena in multiple countries, whether arranged in sequence one after the other, or topic by topic, does not constitute a comparative study if there is no explicit identification and analysis of similarities and differences. Thus many regional and international surveys may be useful as raw material for comparison, but are not themselves comparative studies. There is also an emerging trend to compare individual institutions in different countries, often for purposes of benchmarking and particularly in Europe. These may be of interest from a management perspective, but if they pay little or no attention to social, cultural and other factors at the national level (for example Balagué and Saarti, 2009), they do not contribute to international LIS. True comparison occurs in only a small proportion of the literature. In this article Danton's criteria have not been applied strictly, so that reference is made to some contributions that are of interest despite not satisfying all the criteria.

Thirdly, inspection of articles which can be classified as comparative in that they meet Danton's fourth and fifth criteria showed that there is no discernable nucleus. Authors seldom cite one another or any other comparative studies in LIS. Already in 1993 Bliss remarked, "Ignorant of the efforts of either predecessors or colleagues, individuals are proceeding without an adequate history or contemporary context" (Bliss, 1993b, p.94).

Fourth, hardly any methodological literature is cited, let alone literature relating to comparative methodology. There is little evidence of awareness of issues of metatheory, methodology or methods.

Finally, this literature is largely atheoretical – studies are mostly conducted in a theoretical vacuum. Although in Asheim (1966) and Benge (1970) we already find quite exhaustive lists of economic, cultural, social and other factors that are put forward as influencing library development, and while Williams (1981) suggested theories of public library development that might usefully be applied in international comparative studies, little theory from LIS or from other subject fields is used to develop conceptual frameworks, hypotheses or research designs, or to interpret results. Of course there are laudable exceptions, some of which are mentioned in the next section.

The need for theory

In the article cited earlier, Anyon (1982, p. 35) describes theory "as an attempt to distinguish appearance or observable characteristics from essence; to get behind empirical data". Theory should be grounded in data and there should be a reciprocal relationship between theory and data: the one should inform the other. Further, for Anyon, theory has to be "socially explanatory".

I understand this to imply that we need to find a middle ground between two extremes. At the one extreme we have rudimentary models which merely attempt to explain empirical findings in terms of statements relating to the data. As Hjörland (2000) has pointed out, models help us to "visualize how something might work and what variables should be taken into account", but the problem with testing models is that this process "does not question the assumptions on which the model was built" (p.521). Examples are found in LIS theses and dissertations in which sets of trivial hypotheses are tested using sophisticated inferential statistics, but where the "so what?" questions are not answered. The other extreme is that wide-ranging 'grand theory' that consists of "a set of umbrella concepts designed to explain a broad range of social phenomena, and robust enough to act as the conceptual framework for a variety of research programs dealing with empirical data", for example Marxism and rational choice theory (Hamilton 2004, n.p.). Although they may be plausible and widely accepted, such theories are too abstract and too far removed from what can be empirically observed, to be of immediate use in designing a research study. Instead, they provide spaces for reflection and theorizing.[9] We see this happening in LIS, but LIS has not produced grand theory. In fact, although some use is made of theory from other fields such as psychology, sociology or management, LIS has produced very little theory of any significance (cf. Hjørland, 1998 on information science). In my view this applies a fortiori to comparative LIS. Here some notions have emerged that might conceivably be situated in relation to grand theory. One example is the notion, possibly related to Max Weber's famous work *The Protestant Ethic and the Spirit of Capitalism* (1905), that the differences in library development in northern and southern Europe are related to the religions (Protestant vs. Catholic) adhered to in those regions. Another is the role of climate in library development (Benge, 1970). But the connections to grand theory have not been made.

If neither low-level models nor grand theory are appropriate for LIS, this suggests that we need theories of the middle range, as defined by Merton (1968, p.51):

> "theories that lie between the minor but necessary working hypotheses that evolve in abundance during day-to-day research and the all-inclusive systematic efforts to develop a unified theory that will explain all the observed uniformities of social behavior, social organization and social change" (Merton 1968, p. 39).

Morgan and Wildemuth (2009), citing Poole (1985), state that

> Middle-range theories are concrete enough to clearly apply to phenomena of interest to a professional field like information and library science, while simultaneously being abstract enough to apply to settings beyond the context in which they were developed. (p.42)

Geels (2007) has suggested that middle range theory is difficult to pin down as it is often an expression of discomfort with the state of theory in a field. Writing about middle range theory in the field of science and technology studies, he proposed that such theory should not address the whole of that field but "focus on limited themes and topics... make explicit efforts to combine different topics in an analytical model and ... search for patterns and explanatory mechanisms" (p. 635). In comparative LIS I would suggest that we need to aim for greater connectedness – finding theoretical explanations that can apply to more than one comparative study and seeking to borrow from, or link to, theory from other social science disciplines. In this way we might arrive at criteria for a less haphazard choice of countries, societies or cultures to compare, and find clues for the explanation of what the comparison yields.

I illustrate this by means of an example from outside our field: sociolinguistics. On the basis of the literature and her own field studies, Paulston (1994) developed a theoretical model relating the focus of social mobilization (ethnicity and nationalism) to language maintenance and shift in ethnic minority groups in multilingual states. She predicting that ethnicity alone is not sufficient to counter language shift; when:

> [...] linguistic minorities [are] in prolonged contact within one nation-state, subordinate groups for whom the basic focus of social mobilization is ethnicity are likely to shift to the language of the dominant group, given motivation and opportunity, while groups whose social focus is a sense of nationalism are more likely to maintain the ethnic minority language. (p.47)

She therefore selected her case studies to reflect the different foci of social mobilization, e.g. Occitan (spoken in Southern France) and its closely related sister language Catalan, spoken in Catalonia, Spain. In the case of Occitan, the social focus is on ethnicity and there is a widespread shift to French. Catalan represents a case of geographic nationalism, and the Catalan language remains viable. Other cases dealt with by Paulston include Tanzania (the status of Swahili), Peru (the failed attempt to establish Quechua as an official language), Sweden (mother tongue instruction for immigrant children) and Ireland (Irish). The point of this example is that here a theory is employed to guide the selection of cases (countries) for study, and in the explanation of other cases already described in the literature.

In comparative LIS we see few cases where authors explicitly construct a theory to frame and design their study and to interpret their findings (cf. McKechnie and Pettigrew, 2002). Where theory exists, we do not see it being taken up and developed by later investigators. For example, in studies of LIS development in former British and French colonies in Africa a great deal of useful material has been generated. The study of library development in Senegal by Maack (1981) provides excellent material for a comparative study of colonial influences on library development in anglophone and francophone West Africa. Maack (1982) herself developed this topic in an insightful article relating library development in two anglophone and two francophone West African countries to colonial policies as well as library traditions of Britain and France respectively. Although this theme has also been touched on in the seminal work on African librarianship by Sturges and Neill (1998) and in various regional surveys of more limited scope, e.g. Spear (1971), Kotei (1976), Saunders and Saunders (1994), Maack (1986 and 2001) and Akinyotu (2003), it has not yet received the sort of systematic treatment that would generate theory and provide a framework for further comparative study. Such a framework should suggest further hypotheses and guide the identification of countries to be compared. Thus a theory of colonial influence might be tested by expanding it to former Portuguese and Belgian colonies, to former colonies of substantial European settlement (e.g. Angola, Kenya, Zimbabwe), and to former colonies in other regions of the world. Further independent variables such as the duration of colonial rule and the conceptions and state of LIS in the colonizing powers themselves, suggest themselves in the construction of a theory of library development in former colonial territories. In such a theory the nature and extent of library development and its post-independence trajectory might be related to a country's colonial past, if other variables (demographic, economic, cultural, etc.) are held constant. Studies conducted in international librarianship provide raw material for such analysis, but in comparative LIS each investigator seems to start from scratch, so that theory is neither built nor tested that could be used, first in an attempt to explain what has so far been reported in the literature, and secondly, to select additional cases for study.

In comparative studies in LIS not much use is made of theoretical insights from other social science disciplines, such as the various theories on the diffusion of innovations, cultural change, policy borrowing, development and post-coloniality. There are of course exceptions, for example a study by Yu (2008) on modern library development in East Asia in which she used Gramsci's (2007) theory of cultural hegemony, and studies of LIS education and research using Whitley's (2000) theory of the intellectual and social organization of the sciences in Nordic countries (e.g. Aarek *et al*., 1992). Dalbello (2008, 2009) studied the influence of culture on digital libraries, using inter alia Hofstede's (1980) typology of national organizational cultures. In a comparison of library professionals in France and the USA, Maack (1985) developed a conceptual framework for a cross-cultural study of feminization and professionalization. Knuth (1999) developed a theory according to which national school library development followed an American or a British model or a third, combined model. She also referred to the influence of these models on school library development in developing countries. Streatfield and Markless (2011), in discussing evidence-based library advocacy, divided countries into three groups according to their history of library development: (1) "ad hoc and opportunist development..."; (2) "... steady progress (in formerly or currently centralist or totalitarian states"; and (3) "countries with well-developed library services [experiencing] a descent from a more or less mythical Golden Age". Such imaginative conceptualization can make comparisons more insightful. In a study of nationwide consortia, Schachaf (2003) proposed a life cycle model. He followed an ecological approach and used theory derived from the management literature of inter-organizational analysis. (Unfortunately, there was no cross-national comparison, and no evidence that national contextual factors were considered at all.) The examples cited here are not the only exceptions. However, many other comparative studies are quite devoid of any explicit theory.

Some of the theoretically more interesting work in comparative LIS seems to come from the fringes of LIS or the "harder" information science end of the LIS continuum. An example is the comparative study by Chatfield and Alhujran (2009) of e-government service delivery in Arab countries, where a model of developmental stages was employed. Another example is the study by Chang (2011) of the manifestations of culture in the design of English-language and Chinese-language websites of multinational corporations, in which Hofstede's model of five cultural dimensions was used.

Useful insights may come from comparative studies of LIS by investigators from outside our field. In a study of the impact of globalization on the public libraries of developing countries, Ignatow (2011), a sociologist, drew on a wide range of social science theory which relates factors such as economic liberalization and migration, economic development, democracy, international non-governmental organizations, and ethnic and religious homogeneity and heterogeneity, to public educational and cultural organizations other than public libraries. He developed a set of six hypotheses for empirical testing. It is noteworthy that most of the references in his article are to non-LIS material. In a related study of the relationship between public library development and democratic systems of government in three developing countries, Ignatow *et al*. (2012) used sociological theories of social capital to construct a theoretical framework for their investigation.

Metatheory, methodology and methods

Having discussed the role of theory, I now turn to the role of assumptions which underpin comparative LIS research. Much of this also applies to international work in LIS education and professional practice, for example in international education and in areas such as LIS development aid and policy borrowing. Problems in international work typically arise when researchers, educators, or practitioners are not aware of their assumptions. These assumptions can be of different kinds; hence it is useful to distinguish between metatheory, methodology and methods.

Dervin (2003, p.136) defined metatheory as

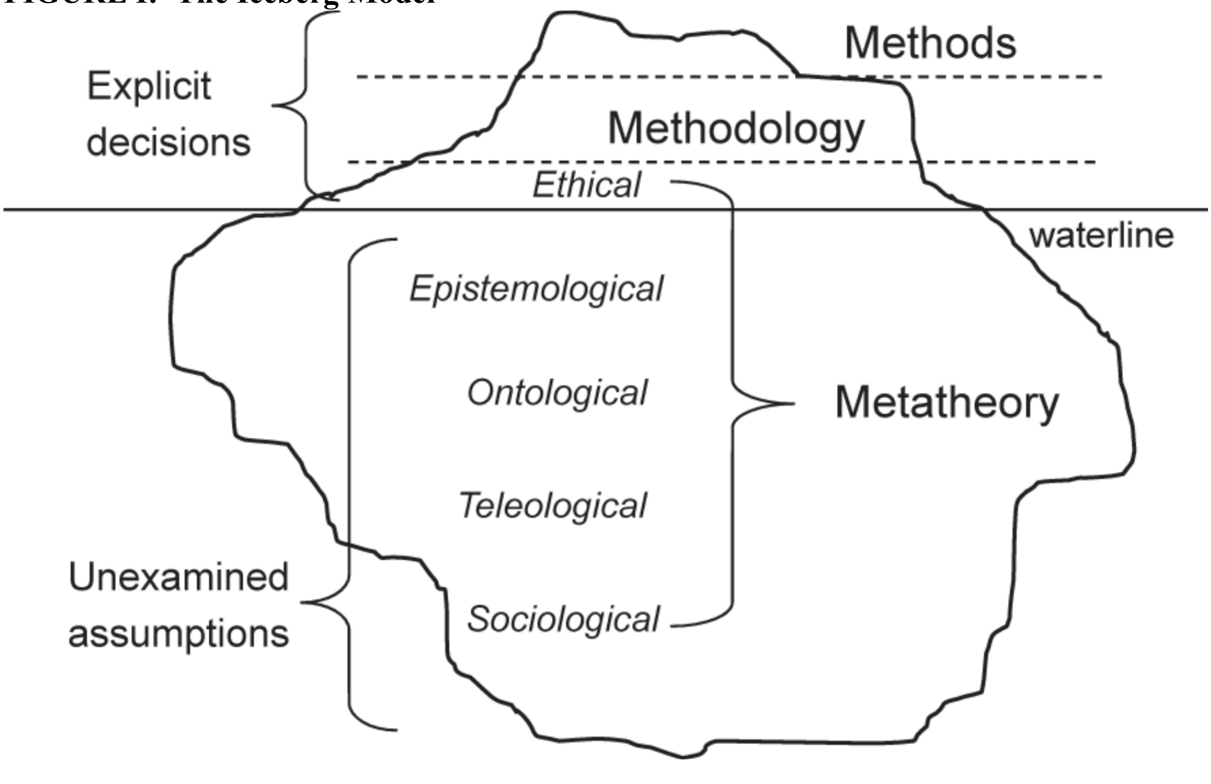
> ...presuppositions which provide general perspectives or ways of looking, based on assumptions about the nature of reality and human beings (ontology), the nature of knowing (epistemology), the purposes of theory and research (teleology); values and ethics (axiology); and the nature of power (ideology)

In this context Guba and Lincoln (1994, p.105) used the term ‘paradigm’, defining a paradigm as “a basic belief system or worldview that guides the investigator, not only in choices of methods but in ontologically and epistemologically fundamental ways”. Such paradigms include positivism, postpositivism, interpretivism, constructivism, critical theory, and participatory and emancipatory paradigms (Cresswell, 2009; Mertens, 1998; Guba and Lincoln, 1994 and 2005). It is emphasized that consideration of paradigms should precede considerations of methodology and methods. Here I use ‘metatheory’ is as a collective noun, and ‘paradigm’ for the metatheoretical perspectives or worldviews.[10]

In the literature we find a number of variations in the hierarchy relating metatheory to methods. Following Dervin (2003) the term ‘methodology’ is used here to denote the bridge between metatheory, as defined above, and methods, the specific practical procedures that are selected to collect, analyze and interpret data. In contrast with methods, methodology is concerned with high-level decisions on research approaches, strategy and research design. A floating iceberg serves as a metaphor for the hierarchy of metatheory, methodology and methods. Visible above the surface of the water are the dimensions of research that are the subject of conscious decisions: methodology and method, while metatheory, comprising what are often implicit or unconscious assumptions, constitutes the submerged bulk of the iceberg. We expect methodology to be above the surface, but inspection of the literature shows that in comparative LIS not all methodological decisions are the subject of conscious reflection – or if they are, they are not explicitly reported. We find methods, as the most visible dimension, at the tip of the iceberg. If any explicit rationale is provided, researchers generally give an account of the specific procedures and techniques they used. In comparative studies procedures and techniques which form part of the general ‘toolkit’ of LIS research can be applied, but they should be selected in light of methodological decisions, including decisions on the strategy of comparison, and they may need to be adapted .

The various paradigms mentioned above can be described in terms of a number of dimensions, as for example in comparative tables in Pickard (2007) and Guba and Lincoln (1994 and 2005). Following and adapting Mouton and Marais (1990)[11], who distinguished five "dimensions of social science research", I have found it useful to distinguish five metatheoretical dimensions: sociological, teleological, ontological, epistemological and ethical.[12] By specifying these within the submerged mass of the iceberg labelled ‘metatheory’, I arrive at the “Iceberg Model" pictured in Figure I.

FIGURE I: The Iceberg Model



The Iceberg Model (for which Mouton and Marais cannot be held responsible) is intended as a heuristic and pedagogical tool for explicating research assumptions and evaluating research decisions in comparative LIS. In an initial exploration of this topic the dimensions were pictured as levels. However, in the Iceberg Model no hierarchy is assumed, merely a distinction between the dimensions which are the subject of conscious decisions (those visible above the surface) and those that underlie implicit or unconscious assumptions (those below the surface).

Thus what I depict as the visible part of the iceberg (the proverbial "tip of the iceberg") represents the methodological considerations, and specifically the research methods such as sampling and questionnaire design, which typically receive attention from researchers. In contemporary social science research ethical considerations usually receive explicit attention as well, but in many cases other key assumptions (the bulk of the iceberg) are left unexamined and unchallenged. Nevertheless, reflection is required before determining methods. Why we study particular phenomena, what is an appropriate object for study, what we want to achieve and how we will know if we achieve it, depend on a sub-structure of assumptions.

Metatheoretical assumptions

As Mouton and Marais (1990) point out, the dimensions of social science research are part of the same process and represent emphases or perspectives on the research process. Scholarly theories, models and philosophies cut across them. As in the tables in Guba and Lincoln (1994 and 2005) and Pickard (2007) the relationship between the paradigms and their dimensions is conceived as a grid with dimensions (social, teleological, ontological, epistemological and ethical) visualized as rows cutting across the paradigms, which are placed in columns. Where paradigms are referred to, I follow Guba and Lincoln (1994 and 2005). They placed the various paradigms in four groups (positivism, postpositivism, critical theory and related paradigms, and constructivism (1994), and added a fifth group, the participatory paradigms, in 2005. As they pointed out (1994), such labels as critical theory are blanket terms for various alternative paradigms. Their basic distinction is between "received" paradigms (positivism and its derivative, postpositivism) and "alternative" or postmodern paradigms, the latter sometimes being grouped together under the heading of interpretivism, as in Pickard (2007). My emphasis here is on ontology and epistemology, but it is beyond the scope of this article to deal systematically with the ontology and epistemology of each paradigm. Only some selected aspects of special relevance to LIS are touched on.

The sociological dimension

The sociological dimension considers the researchers within their social, cultural, linguistic and national contexts (Mouton and Marais, 1990). It considers such aspects as the possible influence of the researchers' origins, interests, backgrounds, work environment, funding, etc. on the choice of the research topic and the way it is researched. In comparative studies a distinction can be made between *symmetrical* studies conducted by teams from both or all of the countries being compared, using collaboratively designed instruments and techniques, and *asymmetrical* studies in which researchers from only one of the countries, often the USA, play the dominant role (Hantrais 2009). Hofstede et al. (2010) warned of the ethnocentric approach of the researcher who applies a US-developed questionnaire in other countries. Reagan (2005) distinguished two forms of ethnocentrism: *cultural ethnocentrism* can arise from the individual researcher's socio-cultural context and take the form of unconscious bias such as racism, sexism and linguicism, which may influence the choice of research topics, questions, hypotheses, etc. The second form, *epistemological ethnocentrism*, is dealt with under the epistemological dimension below. Hantrais (2009) discussed various issues that arise in the management of multi-national research teams, including differing intellectual styles and contrasting national research cultures.

In comparative studies in which authors from more than one country have collaborated, they should describe the collaborative process and how they dealt with cultural differences and differences in their intellectual styles. In comparative studies in LIS it is unusual for authors to deal explicitly with the challenges of inter-cultural understanding, cultural bias and cultural relativism, but there are exceptions. Henri *et al*. (2002) conducted a study of the role of school principals in developing school library programmes in seven countries. The three authors were from different countries and enlisted an "International Research Reference Group" representing each of the seven countries to provide input and advice on survey instruments and to plan and administer the research procedures, from data collection and analysis to reporting. The study of Aarek *et al*. (1992) provided brief but insightful comments on the "multicultural research team" consisting of researchers from four Nordic countries, which undertook their research, also reported by Järvelin and Vakkari (1990, 1993), and commented that their project yielded knowledge concerning "the international comparative research process itself" (Aarek *et al*., 1992, p.42). Other LIS authors addressing these issues include Liu (2008a) and Asselin (2011).

The teleological dimension

The teleological dimension is concerned with the purpose or aim of the research (Mouton and Marais, 1990), which is influenced by researchers' metatheoretical assumptions. In traditional positivist educational research methodology texts such as that of Van Dalen (1973) the scientific goals of explanation, prediction and control were emphasized. In comparative librarianship this was echoed by Danton (1973), who, in defining comparative librarianship stated its ultimate aim as "trying to arrive at valid generalizations and principles" (p.52). This implies that the social researcher adopts the stance of a neutral, disinterested observer whose only aim is to add to the 'building blocks' of knowledge, without exercising value judgments or wanting to intervene in the situation. A very different aim characterizes critical theory and related paradigms, where the aim of inquiry is the critique and transformation of the social, political, cultural, economic, ethnic, and gender structures that constrain and exploit humankind, by engagement in confrontation, even conflict (Guba and Lincoln, 1994). In the context of comparative LIS this would translate, for example, to a post-colonialist perspective on such issues as the development of public libraries, book aid, digitization of cultural heritage, and the impact of international intellectual property regimes in developing countries. Here the researcher would not be limited to an uninvolved, neutral stance, describing what exists, but would contribute to a process aimed at a more just and equitable outcome. This is uncommon in comparative LIS, but such an approach is illustrated by the African Copyright and Access to Knowledge (ACA2K) project, which studied the impact of copyright legislation in eight African countries with an avowed intention to promote copyright reform in Africa (Armstrong *et al*. 2010).

In LIS much comparative research has an implicit or explicit practical or applied purpose, that of 'borrowing' or transferring and adapting systems and policies from one country to another, or generally to prompt improvement in a country seen to be lagging behind in the comparison. In this sense Arnove *et al*. (1982, p.4) referred to the "ameliorative strain" in comparative education and Nowak (1977) to the "diagnostic-therapeutical" approach in comparative social research. This is not uncommon in LIS. An example is a study by Van Zijl *et al*. (2006) in which a sadly under-resourced South African university of technology was compared with a New Zealand counterpart. It is difficult not to see this as reflecting an intention, conscious or not, to jolt South African decision makers into rectifying the situation. A European example is a comparison by Vitiello (1994) of the national libraries of the United Kingdom and Italy, which provided ammunition for an argument against the continued existence of two national libraries in Italy. The dangers of policy borrowing and the risks this motivation entails for the integrity of the comparative enterprise have been much discussed in comparative education, for example by Kelly *et al.*(1982), Cowen (2006), Phillips and Schweisfurth (2008) and Steiner-Khamsi (2010), but such discussion is still lacking in our field.

The ontological dimension

Ontology as the theory of being has implications for our conception of reality (Wikgren, 2005). The ontological dimension of social sciences research is concerned with the reality that is being investigated, which is also referred to as the research domain of the social sciences. Associated with a social science research domain are domain assumptions, beliefs about the nature, structure and status of social phenomena (Mouton and Marais, 1990). For example, in a comparative study of digital library development Dalbello (2008, p.376) stated a number of such assumptions about national libraries. This is not common in comparative LIS, but it is important to reflect on the nature of the phenomenon being studied and on what can legitimately be compared.

Positivist ontology (also characterized as 'naive realism') assumes that there is an "apprehendable reality" (Guba and Lincoln,1994, p.109). The assumption that reality can be fully apprehended and is not dependent on the human observer, implies that it is invariant, allowing for the determination of cause and effect and the formulation of scientific 'laws', an aim articulated by early comparativists in LIS, for example Krzys and Litton (1983). Postpositivist ontology (critical realism) requires that "claims about reality must be subjected to the widest possible critical examination to facilitate apprehending reality as closely as possible" (Guba and Lincoln, 1994, p.110). As in positivist ontology, a reality external to human beings does exist independently but there is less certainty about cause and effect relationships. Our knowledge of such relationships is provisional and subject to revision. Thus extensive critical examination is needed to apprehend reality as closely as possible. Postpositivist ontology is relevant to comparative research *inter alia* because it implies that multiple studies conducted in different countries can be helpful in establishing and confirming observed relationships.

In critical theory and related metatheories (historical realism) it is assumed that the reality that can be apprehended at a given point in time is the result of a range of historical factors (social, political, economic, cultural, ethnic and gender) that give rise to a "virtual reality" in the form of structures crystallized over time (Guba and Lincoln, 1994 and 2005) that limit and constrain our thinking. Social phenomena are the results of processes that take place over time, creating structures that shape human experience at the same time that human action continuously changes those structures (Wikgren, 2005). Thus from the perspective of critical theory a study of library development aid would need to place this in the context of a range of factors, including the impact of colonialism (and how colonial policies and racism framed policies about what was appropriate development for subject peoples), neo-colonialism, sexism, and the political economy of development. Since the work of Asheim (1966) and Benge (1970) there have been many perceptive and critical studies of library development aid and the impact of donor policies, for example the dissertation of Bouri (1993), who analyzed the failure of public library development in Egypt in the context of modernization theory and shifting international development discourse, Maack's (2001) study of books and libraries in cultural diplomacy in West Africa during the Cold War, and other studies discussed by Sturges and Neill (1998). However, I have been unable to find comparative studies of development aid using critical theory in a sustained manner.

Constructivist ontology (relativism) assumes multiple realities or meanings (Pickard, 2007) that are constructed by humans individually and in their social contexts (Guba and Lincoln, 2005). The realities thus created are not universal, as posited by positivism, but embedded in local and specific contexts, and they evolve over time. This stance implies that when studying a social or cultural phenomenon, the participants in the study should be empowered to interpret their situation in their own ways using their own concepts, rather than, or in interaction with, those of the investigator. This allows a richer texture of meanings to emerge from the study. It has obvious implications for comparative studies; especially those conducted in developing countries, where researchers must be prepared to negotiate meaning interactively and suppress their tendency to impose their own conceptual structures on the 'other' being studied. Such conceptual structures include 'checklists' for the international comparison of library phenomena as found for example in Krzys (1971), Simsova (1982) and Krzys and Litton (1983). Comparativists also need to be aware of often unrecognized ontological assumptions in international librarianship, such as the assumption common in modernization theory, "…that all societies follow the same path to development and the countries at different stages of development represent different points on the same continuum or trajectory" (Arnove *et al*., 1982, p.5), as well as simplistic notions of the 'digital divide' (cf. Duff, 2010), and technological determinism (Hamelink, 2000).

In the social sciences generally international comparative studies are thought to entail the comparison of phenomena "in two or more countries, societies or cultures" (Hantrais, 2009, p.2; cf. Danton, 1973), but there has been much discussion of the terms 'international', cross-national', trans-national', etc. In comparative social studies and political science the concepts of nation, country and nation-state raise problems of an ontological nature. Galtung (1982) discussed the notion of the nation in some depth, while Dale (2005), following Wimmer and Glick Schiller (2002), has questioned the assumptions of 'methodological nationalism', which refers to "to the taken-for-granted assumption that nation states and their boundaries are the 'natural' containers of societies and hence the appropriate unit of analysis for social sciences" (p.24). In a time of globalization questions are being raised about the assumption that the nation-state is the primary unit of comparison in comparative education (Crossley, 2002) and social policy (Kennett, 2001).

The epistemological dimension

Epistemology is the theory of knowledge (Hamlyn, 2005) and the "epistemological question", according to Guba and Lincoln (1994, p. 108), is, "What is the nature of the relationship between the knower or would-be knower and what can be known?" This implies a close relationship between epistemology and ontology. If it is assumed that an external reality exists outside the observer, then a dualist and objectivist (positivist) epistemology is possible that allows an observer to be objective and to make value-free observations. This has implications for comparative studies. In terms of the positivist paradigm the comparativist needs to "find a body of material suitable for comparison that is independent of the collector and interpreter" (Raivola, 1986, p.269). According to Raivola this assumes that "objective data for comparison are somewhere in existence just waiting to be compared". Related to this is the problem of 'neutral' or 'objective' criteria, that must somehow be arrived at from outside the situations being compared.

In interpretivist paradigms the distinction between epistemology and ontology is weak or absent. Interpretivist epistemology is described as transactional and subjectivist. Here, to return to Raivola's argument,

> The researcher ... cannot set out to look for similar or different phenomena in different cultures, since similarity is not something that is an inherently inseparable part of an empirical observation. ...similarity is a relationship between the observer and the data, one that depends on the observer's system of concepts (p.270).

In the critical theory paradigm the observer and the observed are seen as being linked interactively so that the values of the observed influence the observer and findings are said to be "value mediated" (Guba and Lincoln, 1994, p.110). Constructivist epistemology takes this a step further in that the interaction between observer and observed, also linked interactively, is such that the findings are created through this interaction (Guba and Lincoln, 1994). The relativism inherent in interpretivist epistemologies poses challenges to certain presuppositions of traditional epistemology. Among these challenges Klein (2005) identified the argument that "there is no set of rules for belief acquisition that are appropriate for all peoples and all situations", and the suggestion that

> ...many of the proposed conditions of good reasoning, for example 'objectivity' or 'neutrality', are not invoked in the service of gaining truths, as traditional epistemology would hold, but rather they are employed to prolong entrenched power and (at least in some cases) distort the objects of knowledge... (n.p.)

He referred to feminist epistemology as an example of this position. Discussions for and against interpretivist epistemology are a minefield of –isms, with opponents pointing to risky stances such as 'cognitive pluralism' and 'epistemic relativism' (Klein, 2005; Luper, 2004), and adherents decrying 'epistemological ethnocentrism' and 'methodological perspectivism' (Dale, 2005) among other sins.

As already mentioned above in the discussion of the sociological dimension, comparativists need to be on their guard against cultural ethnocentrism, identified by Reagan (2005) as one of the two forms of ethnocentrism. More directly relevant in the epistemological context is 'epistemological ethnocentrism', which "deals not so much with individual assumptions and biases, but rather with those common to an entire field of study" (p.5), as in Kuhn's (1970) paradigms. In the case of education, according to Reagan, this is manifested by an almost exclusive focus on a single educational tradition, excluding traditional, indigenous educational practices and leaving these to anthropologists. This is because western scholars have tended to equate education with schooling and literacy, in the absence of which educational practices of indigenous peoples are ignored. Transposing this example from education to LIS, we can see that Western notions of librarianship have tended to limit our understanding of libraries to formal institutions collecting printed or otherwise recorded materials for use by literate people, and have induced us to regard the provision of information services beyond library walls to non-literate communities as a curiosity.

A wide variety of theoretical perspectives, many of them embodying an interpretivist epistemology, is under discussion in comparative education, as discussed for example by Crossley (2002), Dale (2005) – particularly in response to globalization and the knowledge economy –, by Klees (2008), and in the recent volume edited by Schriewer (2012). But while various strands of interpretivist epistemology, particularly critical theory, have achieved widespread acceptance in comparative education, they have yet to make an explicit appearance in comparative LIS.

In comparative studies the close relationship of ontology and epistemology is illustrated by the questions regarding the status and role of nation states referred to above. Wimmer and Glick Schiller (2002, p.302) give the label "methodological nationalism" to "the assumption that the nation/state/society is the natural social and political form of the modern world" and refer to "the iron cage of nationalized states that confined and limited […] analytical capabilities". The partitioning of social phenomena into "nationally bounded societies" makes it difficult to deal with globalization and trans-border processes such as migration and policy borrowing (or policy transfer) (Stone 2004). It can give rise to assumptions such as the assumption that every newly independent state should concern itself with "nation building" (p.304). Thus in comparative studies we may be tempted to seek in small and poor countries the components of LIS systems that, seen from developed countries, all countries should have. In comparative studies in which developing countries are included such assumptions could also colour our understandings of such aspects as legal deposit, documentary heritage and the appropriate roles of national libraries. Similarly, in comparing the development of library systems in two countries methodological nationalism may induce us to overlook processes that transcend national borders, for example common influences from third and fourth countries that affect the countries being compared, or the influence of global trends.

A brief comment may be in order concerning the evaluation of truth claims in comparative studies. While positivist and postpositivist epistemology utilizes the "conventional benchmarks of 'rigor', internal and external validity, reliability and objectivity" (Guba and Lincoln, 2005, p.194), interpretivist epistemology puts more emphasis on fairness and various criteria for authenticity that have moral and ethical overtones, including for example "catalytic and tactical authenticity", referring to the potential of the research to promote action and empower research participants or communities to embark on emancipative community action. Related to this is the category of "voice" (p.209) which implies, in interpretive epistemology, a move away from the disembodied observer outside the investigation towards allowing research participants to speak for themselves—something worth emulating in comparative studies in LIS.

The ethical dimension

Today there is widespread awareness of research ethics. Most social science research methodology texts include a chapter on research ethics, covering the ethical principles of research with human subjects, usually including such aspects as voluntary participation, informed consent, refraining from harming participants, anonymity and confidentiality, and refraining from deception (e.g. Rubin and Babbie, 1993). Other ethical aspects of academic and scholarly conduct (e.g. integrity in reporting and publishing research, objectivity in peer review, and respect for intellectual property) are often dealt with in such texts, and usually feature in the ethical codes of professional associations of social scientists such as that of the American Sociological Association (1999). Most recent LIS research methods texts also include a chapter (Pickard 2007) or section (Beck and Manuel, 2008; Connaway and Powell, 2010; Lawal 2009) on research ethics.

Various ethical issues need to be taken into account in cross-cultural research (Marshall and Batten, 2003). In the European Union, where there has been rapid growth in socio-economic research covering a large number of countries, the European Commission's Information

Society Technologies (IST) Programme funded the RESPECT Project to draw up professional and ethical guidelines for the conduct of socio-economic research (RESPECT Project, 2004). The code, based on three main principles: (1) upholding scientific standards, (2) compliance with the law, and (3) avoidance of social and personal harm, has been summarized by Hantrais (2009) who also addressed a variety of issues that need to be dealt with in multi-cultural teams. In the context of comparative LIS it is worth bearing in mind that there may be cultural differences in the interpretation of concepts such as privacy, confidentiality and informed consent (J.J. Britz *pers. comm.*) The ethical codes of national professional associations and regulatory agencies may differ from country to country. Thus in cross-national team research, ethical issues need to be clarified at the initial stages, and attention will also have to be paid to such issues as ownership of data, reporting and dissemination of results.

In international and comparative LIS research we need to consider the ethics of international knowledge sharing and information flows. In comparative research involving developing countries (or for that matter any LIS research in such countries), where asymmetries may exist in respect of power relations and information flows, people, communities and institutions should not be exploited as 'fodder for research'. The autonomy and dignity of research participants and collaborators should be respected. It is important that the authentic voices of those studied in other countries and societies be heard. The flow of information should be reciprocal, encompassing South-North as well as North-South flows. At the conclusion of the research project feedback should be given to communities that were studied and that provided research data, so that they too can benefit fully from information and insights gained (Britz and Lor, 2003), as for example in Moyer and Weech (2005). It should not be assumed that writing up the research in a scholarly journal will ensure that local scholars and the studied community gain access to the findings.

To conclude this section on metatheoretical considerations, I suggest that in evaluating contributions to the literature of comparative LIS, we need to ask whether authors of such work explicitly identify the paradigm within which they work, e.g. positivist, constructivist, Marxist, feminist, post-colonial, etc., and if not, whether they give any evidence of awareness of metatheoretical issues. If there is no such evidence, their stance is most likely naïve empiricism.

Conclusion and recommendations

This examination of the literature of comparative LIS shows that there is considerable scope for improvement in two areas: the use and development of theory, and general conceptual and methodological awareness, particularly of the metatheoretical assumptions inherent in research. The majority of studies reported in comparative LIS are inconsequential in the sense that they do not purposefully build on earlier international or comparative studies, and do not adequately utilize LIS theory or theory from other disciplines. Furthermore, an examination of recent literature in comparative education, politics, social policy and other comparative disciplines indicates that comparative research in our field has not kept up with conceptual and methodological advances in comparative studies in these other social sciences disciplines.

As the number of foreign students in LIS schools increases, we can expect an increase in research with an international dimension, even if it is not comparative. Students in LIS programmes (whether foreign or local) need a sophisticated understanding of international issues in our field. There is a need for greater awareness of, and a critical attitude to, the influence of the researcher's academic and social context (sociological dimension), research aims (teleological dimension), domain assumptions (ontological dimension), assumptions relating to the truth value of their research stance and findings (epistemological dimension), and ethical issues. Much of this applies to research in international librarianship more generally and not only to comparative research proper. Awareness of the theoretical and metatheoretical issues should also be of value in international LIS education and practice, for example in the planning and development of educational programmes undertaken in partnership with other LIS schools, in development assistance and international consultancies.

To develop theory that is both grounded in data and socially explanatory, investigators need to seek and extend theory from earlier studies in LIS and to borrow and adapt theory from other disciplines. They can usefully draw on conceptual and methodological insights of other social sciences disciplines, which have seen continuing conceptual and methodological reflection and debate.

In conclusion some recommendations are offered:

(1) Theory: investigators in comparative LIS, especially masters and PhD students, should be encouraged to contribute to the development of theory in our field by seeking out and evaluating theoretical insights from earlier work in LIS as well as theory from other fields. They should be encouraged to adapt and utilize such theory in developing their conceptual frameworks, designing their studies and interpreting their results.

(2) Meta-analysis: In some areas enough material may have accumulated in the form of country studies, regional surveys, international statistical databases and other sources to make possible meta-analyses in which this material is reviewed and interpreted from a theoretical perspective, where theory from LIS is evaluated, and theory is borrowed and adapted from other fields, possibly allowing us to approach the construction of theories of the middle range.

(3) In research method courses we need to raise awareness of the assumptions that underlie research decisions, and of the sequence in which research decisions should be taken. LIS researchers need to examine their metatheoretical assumptions (for example unstated teleological, ontological and epistemological assumptions) before proceeding to methodology and methods. Thus decisions on metatheory should precede decisions on methodology, and decisions on methods should flow from these.[13]

(4) Metatheory: Courses in LIS research method should include some introductory material on metatheory. That this is not universally popular is demonstrated by the apologetic tone with which Pickard (2007) introduces her excellent first chapter on major research paradigms. Courses in comparative education, politics or social policy may help make graduate students interested in comparative LIS topics aware of metatheoretical issues.

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[1] Whereas Anyon described two forms of naïve empiricism, Bernstein (1976) appears to have distinguished between “naïve empiricism” and “more sophisticated forms of empiricism”: “…the case for a naturalistic understanding of the social sciences is based upon dubious interpretations of the natural sciences. These fluctuate between forms of naïve empiricism that emphasize the collecting and processing of data – that is, building from the ground up – and more sophisticated forms of empiricism that emphasize the construction of hypothetical-deductive explanatory systems.” (p.228)

[2] Use of the term “naïve empiricism” is not intended to imply that empiricism is *per se* naïve, although it has been used as a pejorative label in debates between empiricists and scientific realists (Boyd, 2002). The term is widely used, with somewhat different meanings, in various disciplines, e.g. in the teaching of mathematics, where it refers to the most naive or basic of the four levels of proof that students are found to employ (Knuth and Elliott, 1999) and in counseling psychology, where Strong (1991) has contrasted “theory-driven” or “Galilean” science with “Aristotelian” science, which focuses on the observable characteristics of events. Strong describes naïve empiricism as “a loose collection of beliefs about science that conform closely to … Aristotelian science” (p. 206) and which is characterized by an assumption that observation can be unbiased, an over-emphasis on the gathering of facts, a fixation on research methods, and a reliance on external validity rather than theory development. Often the term is used, without explanation or definition, as a general term of disapproval, but in this article is used essentially as described by Anyon (1982) and Strong (1991).

[3] Bereday (six citations) was one of the major “contributors” in the study by Bliss (1991, p.136), but Noah and Eckstein are not mentioned.

[4] The website of the World Council for Comparative Education Society in March 2012 listed 38 members. See http://www.wcces.net/members/index.html. Not all of these, however, are exclusively devoted to comparative education.

[5] In 2012 its title changed yet again, to *Information and culture*.
[6] Curiously, *Focus...* was not mentioned by Bliss (1991). It was evidently not indexed in *Library literature* during the period of her study.
[7] The trouble with a term such as 'positivism' is that it is often used as a term of abuse, a label for caricatures of beliefs and positions which have seldom if ever been held in the extreme forms that detractors describe. Here the term positivism is used in the more technical sense of one of the paradigms in social science research as distinguished by Guba and Lincoln (1994; 2005). Once dominant, positivism is now challenged by a host of alternative paradigms.
[8] For a discussion of the terms 'international' and 'cross-national' see Hantrais (2009, pp.2-5). Here the two terms will be used interchangeably.
[9] There are as many views on what constitutes theory as there are theorists. This also applies to 'grand theory'. For some authors grand theory is less 'grand' (in the sense of all-encompassing) than for others. For example, Blute and Armstrong (2011) have pointed to a re-emergence of 'grand theories' of the scientific and scholarly process and have identified ten such theories (to which they also refer as 'general theories') in that field. These clearly are of much narrower scope than the grand theories referred to by Hamilton.
[10] The term 'paradigm' inevitably calls to mind its use by Kuhn (1962, 1970), who used it in more than one way. In his 1969 Postscript, included in the 2nd edition of his *Structure of scientific revolutions* (1970), Kuhn refers to two senses in which he used the term in his first edition. The first or "sociological" sense of the term 'paradigm', stands for "the entire constellation of beliefs, values, techniques, and so on shared by the members of a given community". The second sense denotes "one sort of element in that constellation, the concrete puzzle-solutions which, employed as models or examples, can replace explicit rules as a basis for the solution of the remaining puzzles of normal science" (Kuhn, 1970, p.174). In the context of social science research, Guha and Lincoln appear to use the term 'paradigm' fairly loosely to refer to scientific worldviews or belief systems, much as in Kuhn's "sociological" sense.
[11] In adapting Mouton and Marais (1990) I have added an ethical dimension (which they include under the sociological dimension) and moved their methodological dimension out of metatheory to be dealt with separately.
[12] This is not an exhaustive set of dimensions. Pickard (2007:7) lists three "stances" (ontological, epistemological and methodological) as well as "purpose" in a chart comparing positivism, postpositivism and interpretivism, while Guba and Lincoln (2005:195-196) compare positivism, postpositivism, critical theory, constructivism and participatory paradigms in terms of three "basic beliefs" (ontology, epistemology and methodology) and seven "paradigm positions" (nature of knowledge, knowledge accumulation, goodness or quality criteria, values, ethics, inquirer posture and training).
[13] This does not imply that the order has to be strictly linear. Some recursion is likely.