Unneutrality of Archival Standards and Processes*

Giovanni Michetti

Sapienza University of Rome
Viale Regina Elena 295, Rome, Italy
giovanni.michetti@uniroma1.it

Abstract

Standardization is a very complex process in which many different factors need to be mediated and harmonized in order to create tools based on the consensus of the parties involved: standards are the result of a negotiation process where different perspectives and approaches compete, in a domain populated by different stakeholders. As such, they may well be qualified as social constructions. However, the widespread technocratic attitude tends to hide their very human nature, overstressing the technical aspects and presenting them as neutral instruments to get to some objectives. Archival standards are based on consensus, but the level and quality of such consensus is rarely investigated: as a matter of fact, the creation of international archival standards has been committed to groups of people representing a well-identifiable geographical and cultural portion of the whole world; nonetheless, they are assumed to serve archival communities all over the world. Moreover, standardization may be seen as a process of codification of professional knowledge – as such, it is a biased and historically determined process. The language, the interpretation of objects and actions, the nature of professional functions, the definitions of terms and concepts: all standards rely on these ever-changing factors. Last but not least, digital memory relies on the use of

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technical standards in order to be managed, accessed and preserved; therefore, it is fundamental to investigate the nature of technical standards along with their biases, in order to understand how they affect digital memory and its representation, since memory is malleable, continuously reinterpreted and represented on the basis of the cultural milieu and available tools. We cannot escape unneutrality but we can raise awareness of the discretional factors affecting digital memory if we really want to serve our role of professional mediators between objects and users.

Keywords: Standard, Archival description, ISAAD, ISAAR, Unneutrality

1   Introduction

Standardization is a very complex process in which many different factors need to be mediated and harmonized in order to create tools based on the consensus of the parties involved. According to the model provided by some authors (van de Kaa et al. 2007), the emergence of standards is determined by many factors that can be grouped under five categories: superior design, mechanisms, stakeholders, dominant agent, and strategy. Such categories mostly relate to *social dynamics* – to use an umbrella word – whereas the technological component is just one of those categories, often not at all the crucial one. The best does not always win, to put it short: the most technically advanced solution does not necessarily become the dominant one. Standards are the result of a negotiation process where different perspectives and approaches compete, in a domain populated by uncertainty, chance and human behavior. As such, standards may well be qualified as social constructions. However, the widespread technocratic attitude tends to hide the very human nature of standards, overstressing the technical aspects and presenting them as neutral tools to get to some objectives. Archival standards – like all standards – are based on consensus but the level and quality of such consensus is rarely investigated: as a matter of fact, the creation of international archival standards has been committed to groups of people representing a well-identifiable geographical and cultural portion of the whole world; nonetheless, they are called *international*, and assumed to serve archival communities all over the world.

2   Biases in archival standards

The International Council on Archives (ICA) is the largest international, non-governmental organization devoted to the advocacy and promotion of archives and archive professionals all over the world. In pursuing its mission, ICA has developed and issued a set of standards aimed at promoting best practices, enhancing profession and sharing knowledge. The first one to be issued, and the most famous one, is ISAD(G), the general international standard for archival description. The structure of this document is very simple, since it is a set of twenty-six rules for archival description, where each rule consists of:

- the name of the element of description governed by the rule;
- the statement of the purpose of incorporating the element in a description;
- the statement of the general rule applicable to the element; and
- some examples in different languages illustrating the implementation of the rule.

In particular, the examples are a fundamental, structural component of the standard: they are systematically associated to each rule, and they are supposed to serve as a model for diverse communities all over the world. The description rules in ISAD(G) have quite a theoretical nature, so they can be interpreted in different ways in different countries and communities, while the examples deal with the real thing and illustrate real cases, so they affect the interpretation of the rules significantly, even though they are supposed to be explicative, not prescriptive. A closer look shows that they present a peculiarity. In fact, the Italian examples provided throughout the document refer to either the State Archives in Florence or the regional branch of a small non-governmental organization (with the exception of one short example related to the Archival Superintendency in Tuscany), while one would expect to find examples related to the National Archives, just like in the other countries' examples. This is not an issue from an archival point of view, because description rules are the same, whatever the repository and the fonds. However, it is indeed a peculiar choice when compared to the examples coming from the other countries, so a further investigation was undertaken: all the examples have been listed, associated to the country of reference, and counted. The results are worth some reflection (see Table 1; online). The examples provided in the body of text are 218 in total, and they refer to 6 countries only. Their distribution shows the geo-political bias embedded in the stan-

dard: 41% of the examples refers to Northern America (Canada, USA) and 55% to English-speaking countries (Canada, USA, Australia). The remaining 45% is taken by France for a solid 20%, Italy (16%) and Brazil (8%), plus a single example not associated to any country (see Figure 1; online). That is all. Not a great performance for an international standard that is supposed to be adopted worldwide.

ISAD also provides an appendix with a list of full examples, that is, a list of complete descriptions of archival units (as opposed to the examples in the body of text, which focus on the specific rule they are meant to illustrate). The situation does not get any better (see Table 2; online). The full examples are 12 in total and they still refer to 6 countries only. The power ratio is even more meaningful: Northern America plus Australia get the two thirds of the pie (67%), and the rest is left to Italy, Brazil and France (see Figure 2; online).

In addition to the quantitative analysis, such data provides matter for some qualitative considerations. A remarkable feature is that nearly all the Canadian examples are based on archival materials held by the York University Archives, which was the place of work of one of the Canadian members of the committee that wrote the standard. On the one hand, archives are archives whatever their repository, so this is not a relevant aspect. On the other hand, it is surprising to see how very specific, personal circumstances affect the content of a standard, to the point that they are embedded into it. On the one hand, it is quite natural, rather, appropriate to rely on the work experience of those contributing the elaboration of a standard, because the deep knowledge of certain real cases ensures that the examples are properly designed and fit well the standard, enhancing its overall quality. On the other hand, personal experiences are supposed to be mediated by and diluted through the standardization process, which should be the place where different, often competing forces and attitudes find an equilibrium. Therefore, it is not strange to read examples coming from local, possibly peculiar realities – it is strange not to find a balance, and discover that nearly all the examples come from the same local institution. The Italian examples show a similar remarkable feature: they all refer to archival institutions in Tuscany, the same region and the same institutions where the Italian member of the committee worked for a long time. Definitely, this raises up the question: to what extent personal experience and discretional choices should inform an archival standard? Knowledge and experience are biased, and so are standards, therefore this may seem an idle question. In fact, the point is not to reject individual

contributions – rather, diversity is a determining factor for the quality of a standard. The point is to understand that archival standards should be built on such diversity, so the real issue is not to limit the discretional choices, but rather to provide enough space for them, so that a balance can be found and no single voice prevails – after all, some byzantine procedures of the standardization process aim at this objective. Going back to ISAD(G), the question is whether the examples provided by some countries represent a community at large, and a balance has been sought between the representative role and the personal *desiderata* of those drafting the standard.

The Canadian examples show another remarkable feature: they are all in English, even though Canada is formally a bilingual country. It is true that the standard provides examples in French, but these are related to French repositories, that is, they come from the French member of the committee. Language is a fundamental element of identity: the fact that all Canadian examples are in English is not neutral at all, and one may ask what is left of the French identity of Canadian archivists, why they are not represented at all. The choice of the examples is not just a technical issue: standards embed values. Therefore, representing Canada only through English language is a meaningful element. "In addition to being an intellectual and technological undertaking, the development of a standard is also a political exercise; it is a community-defining and -building activity" (Pitti 1997: 269). Under this light, it is easy to see how different a choice has been made for the French examples: these are all related to both the National Archives and many departmental archives. It is by all means an inclusive choice, since it conveys the idea of diversity and may be read as an attempt to cover a broad territory, moving outward from the center. Different countries, different choices – we should wonder what their impact is on the national archival communities, rather, how they support the community-building process. In brief, the qualitative analysis confirms that neutrality is at stake: ISAD(G) is affected by discretionary, personal choices, perhaps related more to specific circumstances rather than to scientific reasons.

The analysis of ISAAR(CPF), the international standard for archival authority records issued by the International Council on Archives, does not lead to a significantly different picture (see Table 3; online). Compared to ISAD(G), more countries are represented indeed – there are 11 instead of 6 – for a total of 91 examples. However, the *new* countries (Sweden, Spain, Germany, United Kingdom, Mexico) are all European, except for Mexico. The result is that the geo-political areas represented in the examples are

nearly the same as in ISAD(G), even though in ISAAR(CPF) countries' quotas are distributed very differently: 4% of the examples refers to Northern America (Canada, USA) and 27% to English-speaking countries (Canada, USA, Australia, UK). The remaining 73% is taken by Spain for a solid 27%, France (14%), Italy (13%), Brazil (10%) and Germany (7%), plus a small quota for Sweden and Mexico (see Figure 3; online). ISAAR(CPF) shows indeed a more active participation from European countries, with a substantial reduction of the intervention from Canada and USA. Europe gets the 74% of the pie, Brazil 10%, and Australia 10%. Canada, USA and Mexico are a residual presence. These figures show a totally different balance of power and interest among the participating countries, when compared to ISAD(G). According to such quantitative analysis it may be said that while ISAD(G) is the result of an initiative driven mostly by USA, Canada and Australia, the development of ISAAR(CPF) has been led by Europe. However, it is worth reminding that the examples provide just a profile of investigation, which needs to be integrated by further analysis of the content of the standards and the history of their development.

The analysis of the full examples provided in the Appendix of ISAAR(CPF) confirms the previous results, except that there is no full example from Canada, whose presence is very limited in the short examples too (see Table 4; online). The full examples are 10 in total and they refer to 10 countries. There is a perfect distribution of all the examples among the participating countries (except for the absence of Canada, as already noted), as shown in Figure 4 (online). The variety of participating countries results in a variety of languages used in the examples. However, this is not at all just a problem of language – English may well be taken as a lingua franca in the scientific domain.

Moreover, it is important to bear in mind that standards are usually approved by large communities, therefore any flaw or bias has to be ascribed to the community as a whole, and this holds true for archival standards too, including ISAD(G) and ISAAR(CPF). What we are trying to highlight here is that (archival) standards are written by people living in certain countries, speaking certain languages, belonging to certain cultures. In the case of ISAD, those people represent a small, green portion of the world (see fig. 5): as can be seen from the map, the voices coming from the red areas are not represented at all.
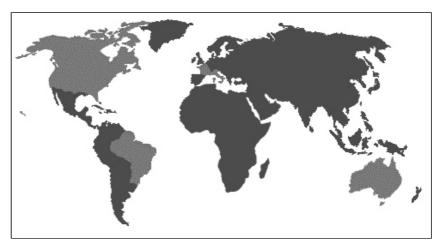
Figure 5. Geographical distribution of the examples in ISAD

Two whole continents are not on the radar, and so does half of South America. China, Japan, India, the Russian Federation, all African countries – they are all out. Such a fact is even more striking when compared to a table listing the languages most spoken in the world by number of native speakers (see table 5). The figures may vary according to the sources, but the differences are not relevant here: the significant fact is that only three out of the first ten languages in the world are represented in ISAD and ISAAR.

Table 5. Languages by number of native speakers

Language	Native speakers		Mainly spoken in
	(millions)	(% of word population)	
Mandarin	955	14.4%	China, Malaysia, Singapore, Taiwan
Spanish	405	6.1%	Hispanic America, Spain, West Sahara
English	360	5.4%	Australia, Canada, Ireland, UK, USA
Hindi	310	4.7%	Fiji, India, Nepal
Arabic	295	4.4%	Arab League
Portuguese	215	3.3%	Angola, Brazil, Cape Verde, Portugal
Bengali	205	3.1%	Bangladesh, India
Russian	155	2.3%	Belarus, Kazakhstan, Russia, Ukraine
Japanese	125	1.9%	Japan
Punjabi	102	1.4%	India (Punjab region)

Source: Wikipedia

Looking at these numbers a provocative spirit may wonder why ISAD and ISAAR have not been written in Mandarin. The adoption of a standard is a complex process, "profoundly influenced by cultural elements such as identity, roles, cultural norms, education, and ways of thinking in a given organizational context" (Youn 2011: 216): what are the chances of success for such a process, if the standard does not embed any of the values of the adopting community? is not language one of the first elements of identity?

3   Biases in archival practice

Not only standards, archival practices are biased too, and affect the way our memory is interpreted, communicated and preserved. There is a consolidated body of work on this topic: "[t]he last decade of the twentieth century saw the emergence of a new stream, one frequently dubbed 'postmodernist' [… which] posed a fundamental challenge to established orthodoxies" (Duff & Harris 2002: 264) and raised a scientific debate that led to a new understanding of the fundamental archival functions. Since then, many scholars have investigated the nature of appraisal, description and preservation as biased practices, so we will not reiterate here those arguments – an extensive list of essays written by archivists who "have begun to question, from a broadly 'postmodernist' framework, the traditional, neutral, passive, positivist, and 'scientific' mindset of their profession" is provided by Joan Schwartz and Terry Cook (Schwartz & Cook 2002: 10 f.), and Tom Nesmith (Nesmith 2002: 25). Not to talk about "[t]he affect of archives" and the "calls to consider the emotional and the spiritual, and not just the intellectual and the physical aspects of archives", which may still be considered an investigation of the biases upon which archives are established (Gilliland 2010: 340). We would rather like to support those arguments by discovering and discussing the biases hidden in some real process. In particular, we would like to focus on the so-called MPLP approach, proposed by Meissner and Greene in their groundbreaking article "More Product, Less Process: Revamping Traditional Archival Processing" (Greene & Meissner 2005). The authors made an online survey of a hundred repositories in the USA and discovered that the repositories had on average one third of their collections lying unprocessed in the backlog; also, only 44% of repositories allowed researchers into unpro-

cessed materials. Hence, the proposal of the MPLP formula: minimal-level processing (that is, description and arrangement at the series level or higher) and focus on the product (that is, the finding aid) in order to make the materials available to researchers. Today, even if debated, MPLP has become a *de facto* standardized approach to archival processing in the United States. MPLP seems quite a reasonable approach, apparently focused on users' needs, especially when dealing with the ever-growing quantities of acquisitions in both traditional and digital environment. From this point of view, MPLP may well be identified as an unneutral process, in the sense that it is founded on an explicit, oriented perspective: it privileges users' needs over archivists' desire to provide detailed archival descriptions. This point is quite evident, since in a certain sense the *unbalance* has been planned and designed by the authors. What is less evident here is how such an unneutral choice has consequences that go beyond the valuable objective of expediting the process of getting collection materials into the hands of users. In fact, what is the use in making materials *available* if they are not *accessible*? If materials are provided without sufficient contextual information, users will not be able to interpret them and get their meaning. In other words, they will not be able to really *access* materials or – even worse – they may get them wrong. Who is the creator? What is the internal structure of the materials? What the relationships with the creator's activity? What the custodial history? These are not details: such information provides indeed meaning to materials. Giving up detailed description, remaining at the series level or higher, is not without consequences: aiming for efficiency is all very well, but we should never forget that archival description is a fundamental action of mediation that – willingly or not – shapes our memory. We are not arguing against MPLP, we are rather investigating its nature, suggesting that – like it or not – MPLP is more than a methodological option: it is rather a way of imagining the future of our past. Greene and Meissner have their own perspective: in line with their pragmatic approach, they explicitly aim at designing a new set of guidelines that "takes the minimal steps necessary to physically preserve collection materials" (Greene & Meissner 2005: 213). That is not enough – physical preservation is just a part of the problem, often not the most relevant one. Logical preservation (i.e. preservation of archival material along with its context) is the real issue, because archives get their meaning from the business, documentary, organizational, social and cultural environment to which they belong: the identification and conservation of such logical – and physical – dependencies is at the core of the archival preservation

function. Working on a minimal objective (i.e. physical preservation) would not be a problem, if the choices made when arranging and describing materials would not affect future access. Unfortunately, if the dependencies are not identified and preserved during the arrangement and description phase, it is very unlikely that materials will be reviewed later in order to find such information and preserve archival material properly; in case, it is even more unlikely that such dependencies would still be in place or can still be identified. Greene and Meissner show awareness of these issues in their work, but MPLP is a strategy, and as such requires some choices to be made. High-level description is the cost that we are supposed to pay in order to grant users easy and fast access to materials, but such a legitimate strategic choice has a relevant impact on preservation, so the bias embedded in MPLP extends from arrangement and description to access and preservation, that is, all main archival functions.

MPLP is unneutral in that it privileges users' needs, as we have written in the previous pages. However, there is a further level of unneutrality that should be considered: MPLP is in itself an interpretation of users' needs, since the underlying assumption is that – first of all – backlogs must be reduced and materials must be made available to users. These are of course desirable objectives, but establishing an "arrangement of materials adequate to user needs" (Greene & Meissner 2005: 2012) would require an analysis and evaluation of such needs, which should not be led by the assumption that access to materials is the priority. This is neither a paradox nor a reactionary position of an intransigent archivist. It is rather the recognition of the many factors influencing users' needs. Such needs are not abstract, they lie in the real world of compromises, so the question is not whether users would like to access materials as soon as possible, but rather if they would prefer to access a hundred boxes described at the series level, or fifty boxes described at the file level – again, here we are not arguing against MPLP, we are highlighting its biases. It is true that users want to get the real thing, be it a box or a folder, but it is also true that users want to put it in context, and archivists need to help them to this aim. Therefore, the real question from our perspective is not how to give them the real thing as soon as possible, but how to *empower* them as soon as possible in order to let them understand the real thing. This leads to a set of more sophisticated issues that cannot be dealt here, related to social and economical aspects of archival access, such as the role of social media, the demand for user participation, the emerging of diverse communities, or a renewed attention for minorities. To summarize,

even an apparently *simple* process like MPLP shows different levels of un-neutrality, and this comes with no surprise: "[n]o architecture can escape the biases of its developers" (Duff & Harris 2002: 275). That is why we should always consider the hidden biases carefully when choosing tools, technologies and processes.

From a certain point of view, standards are a way to choose tools, technologies and processes. Rather, they are *the* way by which a community makes such choices and identifies itself. As pointed out by Susan Davies (Davies 2003), codification of professional knowledge and development of standards through which that knowledge is applied, is a fundamental step in the professionalization process that leads an occupation to develop coherency as a group. This perspective should make us aware that a standard is the tool needed by competing forces within a community in order to affirm their own vision in view of the control over the professionalization process and the professional body. More than ever, it is true what Kuhn wrote in *The structure of scientific revolutions* (1962): while in natural sciences – except for revolutionary periods – all scientists usually accept the same paradigm, in social sciences there are a number of competing schools of thought and no shared paradigm – rather, each school has its own paradigm – and they may be very different from each other. In addition, the members of each school often have a very low opinion of the works and paradigms of other schools. This holds true in the archival domain too: in information science, standards as a place of knowledge codification is more a battlefield than a round table. Therefore, it is fundamental to interpret standards as social constructions, being aware of the balance of power and the very human factors lying behind the so-called technical standards. As we have tried to highlight in the previous pages, it is not just about archival description (ISAD), authority records (ISAAR), or archival processing (MPLP); it is also about the identity of a professional and scientific community. Archival standards are a means by which the archival community re-defines itself, its paradigms, its boundaries and its system of powers through a negotiation process. This is true with regard to not only creation, but also adoption of standards, when they are "inevitably re-interpreted and re-appropriated through the adoption process in its social, cultural, and political context" (Youn 2011: 219).

Still taking the cue from Kuhn's considerations, paradigms – rather, the struggles for their recognition – are a driving force of the scientific debate. This raises a further issue: as Gillies puts it, "often the paradigm acts like a magnifying glass and brings to light features of reality which we would not

otherwise have noticed. However, sometimes the paradigm […] makes us overlook features of reality which contradict the assertions of the paradigm" (Gillies 2012: 33). Paradigms inform archival theory and practice; as such, they are embedded and codified into standards. This means that archival standards model reality according to such paradigms, so that some features are highlighted, while some others are neglected. "Each standard and each category valorizes some point of view and silences another. This is not inherently a bad thing − indeed it is inescapable. But it *is* an ethical choice, and as such it is dangerous − not bad, but dangerous" (Bowker & Star 1999: 5 f.). One of the major risks is that the paradigms adopted by a standard may conflict with a local reality: in Korea, "[e]xisting archival practices [...] did not fit into the archival paradigm underlying ISAD(G). Local ideas of ownership, authenticity, accountability and impartiality can conflict with the principles of ISAD(G) and hinder its implementation" (Youn 2011: 219 f.).

Recognizing the presence of an underlying paradigm and understanding the values it conveys is not difficult when we deal with concepts, principles and categories, while it may be tricky when we deal with technical, apparently neutral standards. In fact, different technologies may rely on different philosophies: databases, for example, represent data differently from markup languages. Databases are more data-centric, whereas markup languages are more document-centric, since the latter "were intended to model traditional documents" (Gueguen et al. 2013: 573). Such dichotomy between document- and data-centric objects and tools should be taken with caution, since the boundaries between the two categories are often blurred. However, it is true that the way we model the world through a database is different from the way we model it through XML. The same is true for other standards: EAD, the Encoded Archival Description standard issued by the Society of American Archivists, is a model focused on the entity *finding aid*, with a totally different approach from RDF (Resource Description Framework) and Linked Data, based on atoms of information that can be aggregated and manipulated (Figure 6; online). A language like XML is more than just a technical option: it is rather a choice of a specific knowledge paradigm, not at all neutral, as indeed true for any technology. XML is in itself an information tool, a stratagem to model reality according to its intrinsic hierarchical paradigm. In a sense, we could say that markup languages are *before* and *beyond* the real-world objects they are meant to describe, because they are tools for interpreting the reality. At the same time, just like any languages, they are a representation of the world and get from it the design of their syntactic structures.

This apparent contradiction is actually the dynamic factor driving the cognitive process through which we identify the nature of documentary objects as well as their relationships. It is a hermeneutic process that should not be described belittlingly as *hypothesis* and *verification*, because these stem just from the reality they are meant to analyze. It is rather a process with a permanent tension between *postulation* and *discovery*, as suggested by Umberto Eco (Eco 1998: 49): it is not just about finding and discovering structures (also because it is often impossible to analyze all objects of analysis, due to their number), it is about posing the structure *ex-ante*, inventing it as a theoretical model and hypothesis, and postulating that the phenomena under study correspond to the structural arrangement that has been theorized. Markup languages are not neutral, they force the descriptions to the expressive capabilities offered by the language: "the technical structure of the *archiving* archive also determines the structure of the *archivable* content even in its very coming into existence and in its relationship to the future" (Derrida 1995: 17). Although the hierarchical logic may seem the ideal way to narrate the structures that inform the documents, nonetheless it may fail to represent the whole system of relations binding the elements that compose a document. Rules, descriptive models, data structures and technology in general, affect the very *identity* of the objects we manage and preserve, because circumscribe and limit the *space* of possibilities for creating and representing the system of relationships in which those objects are put – the same space that after all we recognize as defining the identity of the objects.

4   Conclusion

Archives – hence our memory – rely on the use of technical standards in order to be managed, accessed and preserved. Therefore, it is fundamental to investigate the nature of technical standards along with their biases in order to understand how they affect our documentary heritage, i.e., our memory. In a sense, standards shape our memory just like any container does when we pour some water in it. Memory – be it collective or individual, intangible or deposited on physical records – is not a stable and consolidated entity: memory is a living thing, malleable and continuously re-interpreted and represented on the basis of many factors, ranging from cultural milieu to tech-

nical tools, each of them conveying some biases. "Archiving functions, always influenced by [a] shifting configuration of interactions, mould the ways in which records and archives are represented (hence shaped) and, because the configuration is ever shifting, constantly further re-shape them" (Nesmith 1999: 144). We cannot escape unneutrality. Let's take for example a picture of the Freedom Tower (see Figure 7; online).

The vast majority of people around the world would describe it as a building whose height is 541 meters. The value is correct, the description is inappropriate though, if not mistaken. In fact, "541 meters" does not tell it all, rather, such a description fails to represent part of the fundamental meaning of the object. Five hundred and forty-one meters equals one thousand, seven hundred and seventy-six feet: "1776 feet". This is the correct value, because this is the *real* height. 1776 is the year in which the United States Declaration of Independence was written and approved by the Congress. Therefore, "1776" is not just a number, it is a symbol of fundamental values, that becomes real through the materiality of the object. The building embeds such values, it is spiritually and physically grounded upon them. As such, it is a complex and profound frame of reference in which "1776" is a pivotal element, since the meaning of the object is built upon it, while "541" is not. That is why we may claim that "541 meters" is a mistaken description. Archivists know very well that such significant loss of connotation is not due to just a problem of translation: it has to do with the understanding of the context. "Some of what makes a record meaningful is inscribed within it, but often much of what makes it intelligible is not. Thus most of a record's 'recordness' lies outside its physical borders within the context of its interpretation. The decisions archivists make (as well as the theories of archives they devise in order to make these choices) shape this meaning-making context significantly" (Nesmith 1999: 144).

We cannot escape unneutrality: unneutrality is in our language, in our eyes, in our tools. However, we can control it and raise awareness of the biases affecting objects, theories and practices of the archival domain, if we really want to serve our role of professional mediators between objects and users.

References

Bowker, Geoffrey C., & Susan L. Star (1999). *Sorting Things Out: Classification and its Consequences.* Cambridge: MIT Press.

Davies, Susan (2003). "Descriptive Standards and the Archival Profession." *Cataloguing and Classification Quarterly* 35 (3/4), 291–308.

Derrida, Jacques (1995). "Archive Fever: A Freudian Impression." *Diacritics* 25 (2), 9–63.

Duff, Wendy M., & Verne Harris (2002). "Stories and Names: Archival Description as Narrating Records and Constructing Meanings." *Archival Science* 2, 263–285.

Eco, Umberto (1998). *La struttura assente. La ricerca semiotica e il metodo strutturale.* Milano: Bompiani.

Gillies, Donald (2012). "Economics and Research Assessment Systems." *Economic Thought* 1, 23–47.

Gilliland, Anne (2010). "Afterword: in and out of the archives." *Archival Science* 10, 333–343.

Greene, Mark A., & Dennis Meissner (2005). "More Product, Less Process: Revamping Traditional Archival Processing." *The American Archivist* 68 (2), 208–263.

Gueguen, Gretchen, Vitor Manoel Marques da Fonseca, Daniel V. Pitti, & Claire Sibille-de Grimoüard (2013). "Toward an International Conceptual Model for Archival Description: A Preliminary Report from the International Council on Archives' Experts Group on Archival Description." *The American Archivist* 76 (2), 567–584.

International Council on Archives (2000). *ISAD(G). General International Standard Archival Description.* Ottawa: ICA.

International Council on Archives (2004). *ISAAR (CPF). International Standard Archival Authority Record for Corporate Bodies, Persons and Families. Second Edition.* Paris: ICA.

Kuhn, Thomas S. (1996). *The structure of scientific revolutions.* Chicago: University of Chicago Press.

Nesmith, Tom (1999). "Still Fuzzy, But More Accurate: Some Thoughts on the 'Ghosts' of Archival Theory." *Archivaria* 47, 136–150.

Nesmith, Tom (2002). "Seeing Archives: Postmodernism and the Changing Intellectual Place of Archives." *The American Archivist* 65 (1), 24–41.

Pitti, Daniel (1997). "Encoded Archival Description: The Development of an Encoding Standard for Archival Finding Aids." *The American Archivist* 50 (3), 268–283.

Schwartz, Joan M., and Terry Cook (2002). "Archives, Records, and Power: The Making of Modern Memory." *Archival Science* 2, 1–19.

van de Kaa, Geerten, Kenk Jan de Vries, Eric van Heck, and Jan van den Ende (2007). "The Emergence of Standards: a Meta-Analysis." *Proceedings of the 40th Hawaii International Conference on Systems Sciences.*

Youn, Eunha (2011). *Standardization of Archival Description in Korea: Examining the Undeerstanding, Adoption, and Implementation of ISAD(G).* Doctoral dissertation for the degree Doctor of Philosophy in Information Studies. Los Angeles: University of California.