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ONOMANTICS AND TERMINOLOGY PART III: FORMATS, BORROWED TERMS AND OMISSIONS

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Third part of a series of articles of which Pt.1 was published in KO 23(1996)No.1, p.25-33, Pt.2 in No.3, p.157-168. Pt.4 will follow in KO 24(1997)No.1. In addition to the important distinctions between the fundamental concepts and terms (tags) used in Onomastics and Terminology, as reported in the first two parts of this essay, several other interesting comparisons can be made. First, with reference to *formats*, both the structure and nomenclature used for terminological entries (records) in *ISO 1087* parallel those found in dictionaries and suggest a semantic rather than an onomastic point of view. Second, a large number of *borrowed terms* taken from Lexicography and Linguistics can be found in this glossary for the terminology of Terminology. Sometimes the definitions for these terms identify them as borrowed concepts drawn from the vocabulary used by lexicographers. However, sometimes new meanings are stipulated for these terms without any markings to show that they are not borrowed concepts. Moreover, in all these cases, since the original and the newly stipulated concepts are similar, ambiguity is unavoidable. Third, some concepts that might be useful for terminologists are not included in *ISO 1087*: a few examples are explained. They are all concepts which lexicographers do not need and, consequently, they have no terms for them. It seems apparent that they have been *omitted* from the vocabulary of Terminology simply because they are new concepts without established terms. To explain the reasons for the formats, terms and omissions found in the leading glossary for the terminology of Terminology takes us into a realm of speculation that is too complicated for inclusion here, but I will discuss it in Part IV of this series, with a focus on the problems of neologisms. (Author)

1. Formats

Because of the novel paradigm shift involved in Onomastics (from concepts to their designations) by contrast with the familiar semantic format (going from words to their definitions) we need frequent reminders. The semantic perspective found in dictionary definitions is so deeply entrenched in our minds that our ability to think onomastically can only be achieved by many repetitions and examples. As explained in Part I of this paper, the basic terms used by Terminologists are borrowed from Lexicography and retain strong semantic connotations, even though their definitions, as found in *ISO 1087*, typically prescribe an onomastic content.

Additional evidence of the semantic orientation of *ISO 1087* can be seen in the format of its **glosses** which, as in dictionaries, start with headwords followed by concept

definitions; they are supposed to be concept records but they look like lexical entries. This is intentional, not accidental, as we can see from the glosses found in *ISO 1087* that prescribe their structure: consider the following items:

- {1} [6.2.2.2] **entry**: *Part of a terminological dictionary [6.2.1.1] which contains the terminological data related to one concept.*
- {2} [6.2.1] **dictionary**: *Structured collection of lexical units with linguistic information about them.*
- {3} [6.2.1.1] **terminological dictionary**: *Dictionary containing terminological data from one or more specific subject fields.*
- {4} [6.1.3] **terminological record**: *Structured collection of terminological data relevant to one concept.*
- {5} [6.2.2.1] **entry term**: *Term heading an entry [6.2.2.2] in a terminological dictionary [6.2.1.1].*
- {6} [6.1.5.1] **main entry**: *Any designation [5.3.1] of a concept heading a terminological record [6.1.3].*
- {7} [6.1.2.6] **term list**: *Collection of terms to be subjected to further terminological work.*

The Lexicographic Model. The use of *entry* and *dictionary* in {1} and {2} reflects the lexicographic model. The gloss in {2} makes this explicit by referring to the "linguistic information" found in a dictionary entry where, of course, the various meanings of a word are defined.

The significance of this point is reinforced in {3} which could easily be understood to mean that a *terminological dictionary* is a lexicographic (semantic) product devoted to the definition of terms found in an established special language. *Terminography* as the recording of terms-in-use and their meanings is, no doubt, a well-established and important aspect of Terminology. However, it is quite different from the related but different Onomastic task of helping identify new concepts required for the development of a field of knowledge, including their representation by convenient designators. The dictionary-like format of a *terminological entry* is needed in terminographic glossaries, but a different format is required in conceptual *records* where onomastic principles are needed.

This difference could be clarified in {4}, but it is not. Since "record" is used here rather than entry {1}, one might suppose that a significant distinction is intended. However, close analysis does not support this conclusion. Two relevant distinctions support this conclusion: first, the number of concepts defined in a gloss, and second, its

orientation, whether semantic or onomantic. Let me consider each in turn.

It is clear from both {1} and {4} that only one concept should be defined (described) in an “entry” or a “record.” Most dictionary entries define more than one concept because most lexemes are polysemic. In Onomantics, a tag can, by definition, designate only one concept, but *terms*, as defined in *ISO 1087*, can designate more than one concept — this becomes apparent in the definition of “polysemy” [5.4.4] as a designation that represents “two or more concepts.”

Records or Entries? How, then, should terminologists design entries (records) that, by definition, must define only one concept? In this context, consider {5} which defines an *entry term* as the term which heads an entry in a terminological dictionary {3}. An obvious solution involves the preparation of more than one entry for a single term whenever that term can represent more than one concept. Whereas in dictionaries polysemes get several definitions in one entry, a polysemic term in a terminological dictionary would have several entries, one for each of its possible meanings. Is this, then, the significant difference between a dictionary entry and a terminological record: the former can group several concepts in a single entry, whereas the latter must prepare several term entries for each concept that a given term can designate? If so, the distinction appears formalistically trivial. Why waste time discussing it?

I expect that the glossators of *ISO 1087* were well aware of a much more important distinction between dictionary entries and terminological records: whereas the former define the meanings of a lexeme, the latter describe a concept and offer information about how it can be represented. This, of course, is what the onomantic records in a conceptual glossary (nomenclator) are designed to do. If the records in *ISO 1087* are intended to serve this function also, however, the only key to explain this intention may be found in the phrase *terminological data*, as seen in {4}.

If everyone understood that such data is onomantic rather than semantic in character, the gloss for {4} might mean that a “terminological record” describes a concept and identifies the terms (tags) that can represent it: it does not list a lexeme and define its meanings. Unfortunately, although the expression, “terminological data,” is used in {4}, its meaning is not explained in this or any other record found in *ISO 1087*. Without, apparently, any further explanation of its onomantic. Without such a clarification, it is easy to make the mistake of assuming that “terminological data” involves the meaning of terms, rather than the tagging of concepts.

In fact, therefore, the set of concepts defined in {1} to {5} reinforce the idea that each terminological record (entry) contains a lexeme followed by the definitions of one of its possible meanings. Of course, the entries in *ISO 1087* are not headed by terms (defined in [5.3.1.2] as a linguistic expressions) — instead, they are headed by notations

(expressed by non-linguistic symbols, i.e. numbers). If we use *entry form* to represent any form (word or number) used to head a gloss and support its arrangement in a systematic way, then clearly the entry forms for all records contained in *ISO 1087* are, quite correctly, not terms but notations (*symbols*) — as an example, the terminological record {5} for **entry term** is preceded by [6.2.2.1].

This usage is needed in order to systematize concepts in any printed glossary — in a computerized term bank or database, by contrast, the sequence of elements in a record becomes technically unimportant, though still psychologically significant. In practice, therefore, as *ISO 1087* illustrates, notations used as head forms serve a fundamental purpose in any printed conceptual glossary, replacing the words used as head forms in all dictionaries whose entries embody a semantic structure that calls for the alphabetical listing of lexemes to be defined. [1]

To explain why the *ISO 1087* definition of “entry term” [6.2.2.1] failed to recognize that terminological entries are headed by notations I can only speculate: the use of “term” in place of “word” (as in a dictionary’s *entry word*) might offer a clue. When “terms” are conceptualized as linguistic forms, they exclude symbols, but notations are always, I believe, written as symbols. This limitation might have been overcome by adding a new concept to identify the *entry forms* in a terminological record as notations. Instead, we find {6} which identifies *main entry* as the “designation of a concept” that heads a “terminological record.”

Since the concepts defined in {5} “entry term” and in {6} after “main entry” are virtually synonymous, it is hard to see what distinction the glossators of *ISO 1087* had in mind. They knew that a notation (symbol [5.3.1.1]) actually heads each “entry” {1} — or “terminological record” {4} — and that their own definition of “designation” includes symbols as well as linguistic expressions. Nevertheless, the definitions offered for {5} and {6} plainly indicate that they have words (not symbols) in mind as the first element in an entry (record).

One possible explanation hinges on the equivocal use of *entry* by lexicographers: they use the word to mean a paragraph containing information about a lexeme, and also to refer to the entry word (lexeme) that heads such a paragraph (here I use “entry” only to refer to the full text, not the “entry word”) — see note #7 in Part II for an explanation of “equivocal terms.” In dictionaries, an entry (paragraph) often includes several “run-on entries” for variants of the word that actually heads that entry, which is why they call the head form the “main entry.” For example, the entry for **run** is followed by many run-on entries or expressions like *run free* and *run wild*. It makes sense, in this context, to call *run* the “main entry.” However, *run away*, *run down* and, indeed, *run-on* are classed as separate lexemes and used, therefore, as a “main entry” in separate entries. Fortunately, terminologists have no need for such distinctions and only confuse themselves and others by borrowing these technical terms.

However, terminologists do need to consider a different

problem. More than one term can often be used to designate a single concept. When several synonyms for a concept occur, should they be listed together at the head of a gloss? If so, which of them should be listed first? If one uses “entry” to mean an “entry word” (nota paragraph) and if standardization has occurred or is feasible, then one might suppose that a preferred term would be listed first, followed by its synonyms. In such cases, it would be reasonable to think of the preferred term as the *main entry* and its synonyms as “run-on entries”.

Whenever a glossary is printed out as an alphabetized list, the choice among synonyms determines where the gloss will appear in the book and additional permitted terms for the same concept should have cross-reference entries scattered alphabetically throughout the list. However, this is quite a different situation from the one confronting lexicographers and it makes no sense to borrow their vocabulary. Surely, it is easy enough to think of words that, without ambiguity, serve the needs of terminologists for precise terms to talk about what they do. In the Onomastic usage, terms for a concept are listed after its description, not before, and the sequence in which they are listed has minimal significance—especially in the hypertext format when any available term for a concept can be used for its rapid retrieval. When concepts are arranged on a printed page, this can be done by notation numbers which put them in systematic order and, again, alphabetized words are needed only in an index.

These observations are somewhat unfair because in subsequent revisions the key terms have been re-shuffled. However, *entry term* has been retained after, it appears, some debate about the possible use of *main entry term*—somehow combining {5} and {6}. The 1994 draft revision for *ISO 1087*, also dropped entry {1} and main entry {6} and *terminological record* {4} was replaced by *terminological entry*. But do these proposals clarify anything? The distinctive features of a “terminological entry” (or “record”) would be clear only if *terminological data* were to be defined clearly as an onomastic record—but they are not.

Actually, the semantic presuppositions of *ISO 1087* are reinforced by {7} which defines a term list as a set of terms (not concepts) to be analyzed “terminologically.” An explanatory note in this gloss adds that “a term list may also include additional information about the terms.” Surely, here, “terminological” refers to the semantic analysis of lexemes to be defined rather than the onomastic study of concepts to be represented. The evident starting point in the design and revision of *ISO 1087* has been the choice of key words (as found in “term lists”) followed by definitions of their meanings—or, rather, by stipulations that assign new meanings to many of them.

We must conclude, I think, that the underlying assumptions expressed in *ISO 1087* rest on the notion that terminological data is, in practice, information about the meanings of terms (lexemes), not the description of concepts to be represented. Further evidence to support this conclusion is provided by the many other terms borrowed from

Lexicography that appear in *ISO 1087*, which I shall now discuss.

2. Borrowed Terms

The frequent borrowing by terminologists of lexicographic or linguistic terms can be illustrated by the following words glossed in the text of *ISO 1087*:

Exhibit One: Borrowed Terms

abbreviation, acronym, affix, antonymy, ending, homonymy, index, morpheme, name, neologism, polymy, prefix, root, stem, suffix, symbol, synonymy, term, transliteration, variant, vocabulary, word

Most of these words are used to represent the same concepts they signify in lexicographic or linguistic usage—i.e., they represent *borrowed concepts* [3.1.1]. When this is the case, is there any need to write new definitions for them in a glossary for terminological concepts? References to familiar dictionaries or glossaries for these fields (e.g. Hartman 1983, Hartman and Stork, 1972; Robinson 1983) ought to suffice. However, for the convenience of those without ready access to these published works, could they not be included in an annex containing borrowed concepts? The entries for these terms could simply reproduce authoritative existing definitions with citations to the relevant glossaries or dictionaries. There would be no need to write new definitions for them.

Moreover, I think their original authors would welcome the additional publicity and, perhaps, some extra sales for their own publications. If they find out about the new definitions given such words in *ISO 1087*, they will be scornful if not angry, assuming that only specialists in Lexicography and Linguistics can and should define the concepts developed for these fields of knowledge. It is surely misleading for outsiders to rewrite definitions for familiar terms when their established meanings are needed. No doubt, in every field of knowledge, we need to borrow and use concepts previously developed in other fields but can we justifiably claim them as our own property? Terminologists should be especially scrupulous about recognizing the difference between the new concepts required for their own distinctive needs and those that have been created for related fields which they may borrow but not re-define.

Meta-Terms. When borrowed terms are used to represent new **concepts**, we cannot speak of “borrowed concepts.” Instead, these words are used metaphorically as neologisms. Yes, it is important to remember that neologisms are not only new words, they also take the form of familiar words to which new meanings are assigned meta-terms (or meta-tags): they are metaphors, i.e., expressions which acquire new meanings that differ from those they originally had. As such, they are **neologisms**—I will have more to say about them in the concluding section of this article.

Of the 22 terms mentioned above in Exhibit One, a majority represent borrowed concepts, but some are used in ISO 1087 as *meta-terms*. I have already discussed *concept, definition, designation, name, object, symbol* and *term* as examples. Let me add just one more example, *word*. Its entry reads:

[5.5.1.3] **word**: *Smallest linguistic unit conveying a specific meaning and capable of existing as a separate unit in a sentence.*

This definition conjoins the semantic notion of *alexeme* — the term used by linguists to identify any “minimal linguistic unit” that has a meaning — and the orthographic sense of *word*, identified by the way it is written, i.e., between spaces. All lexemes (including phrases and affixes that are not words) can serve as entries in a dictionary, and all *headwords* in most dictionaries are lexemes (the exception are those dictionaries which also enter the names of objects, typically distinguished from terms by their capitalization). Both *lexeme* and *orthographic word* represent important and useful borrowed concepts -- there is no need to define them for terminologists and, especially, I cannot see any reason to create a meta-term for the concept of *lexemes that are written as single words* (words that are lexemes). We often need to refer to lexemes that are not words (they may be phrases or affixes) and words that are not lexemes (for example, proper names).

Lexicographers need the concept of a lexeme in order to distinguish between closed phrases (lexemes) and open phrases (non-lexemes): they use the former as entry words but not the latter. They also distinguish lexemes (which represent concepts) from names (which identify objects) because they are treated lexicographically in two quite different ways. Neither of these distinctions is needed in Terminology because terminologists do not need to distinguish between lexemes and non-lexemes.

However, terminologists need to understand and use the concept of a ‘lexeme’ to help them distinguish between two senses of *term*. This word often refers to a lexeme (as explained in Part Two of this paper) but no terminological purpose is served by distinguishing lexemes from non-lexemes. However, terminologists also use ‘term’ for a fundamental concept that is central to terminology — i.e. it may refer to expressions that represent concepts (tags) — whether or not they are lexemes. These two meanings of ‘term’ are easily confused with each other but they can easily be explained by contrasting lexemes and tags. These words (or good synonyms for them) can easily be used to distinguish between these two important meanings of *term*. (Of course, ‘term’ has many other meanings also, but none of them, I think, are important for terminologists.)

The widespread confusion between these two meanings of “term” reflects their overlap: lexemes are tags and many tags are lexemes. However, some lexemes — affixes, for example — do not occur as tags, although they appear in compounds as part of a word. More importantly, most but not all tags are lexemes. Some tags, for example, are phrases as illustrated by the list given below in Exhibit Two.

Questionable Meta-Terms Most English speakers have a strongly established sense of the meanings of word and will simply ignore the peculiar sense stipulated for it in *ISO 1087*. They are more likely to be confused by more technical terms that were borrowed from lexicography and given new meanings in this glossary. I shall discuss three of them: *homonym, polyseme* and *synonym*. Precisely because these words have technical meanings in linguistics, we might expect their original meanings to be retained as borrowed concepts in Terminology. However, their definitions in *ISO 1087* show that, like ‘word,’ they are treated as meta-terms — meanings have been stipulated for them. Unfortunately, these meanings so closely resemble the original connotations of these words that it is difficult to remember the distinctions, especially because, as I shall argue, they are perverse or irrelevant and therefore need not be remembered.

Of these three words, *synonym* is the most familiar and in ordinary usage, it has fuzzy meanings. However, for lexicographers it means, as defined in W3, “a word having the same or nearly the same meaning as another in the language.” The “synonymies” given in this dictionary at the end of some entries are lists of synonyms accompanied by notes that explain how their similar meanings differ from each other. In a semantic context, synonyms are lexemes some of whose meanings resemble each other. Lexicographers who include *synonymies* in their dictionaries need to make tough decisions about which words to recognize as synonyms to be included in a single entry, and how to identify the differences between them. The point is that, in all synonymies, synonyms have similar but not identical meanings.

The popular notion that synonyms have the same meaning is, ironically, perpetuated in Linguistics as indicated by the entry for *synonym* in the Sager/Stork dictionary of linguistics. It defines a synonym as “one of two or more words with identical meaning” but adds that “true synonyms” are rare — as, indeed, they are. By implication, most “synonyms” have similar but not identical meanings and are, therefore “not true synonyms.” My explanation is that linguists can indulge themselves by treating synonymy as an ideal type with few real world examples. By contrast, lexicographers must grapple with the real world and its semantic problems. For them, synonyms are lexemes that have similar but not identical meanings.

However, although synonyms are lexemes that usually have different meanings, they can often replace each other, in particular contexts, without changing the meaning of a text. This provides the basic foundation for the work of terminologists who are interested in the representation of concepts. For them, the important problem is onomastic, not semantic. They understand that any two words, even if they have quite different meanings, can be used in context to represent the same concept.

Most words are polysemes — they have several meanings. Consequently, if X can mean A, B or C, and Y can mean C, D or E, then it is possible for both X and Y to be used, in context, to mean C. In other contexts, however, they

could have quite different meanings: X might mean A and Y, E. Consider *entry* and *record*. They can be exact synonyms when both words are used to mean a *gloss*, but “entry” can also mean a vestibule and “record” can mean a notable achievement.

Thus, in practice, “synonyms” mean the same thing only in particular contexts. Contexts are critical to establish the intended meaning of any word. This was probably clear to the authors of *ISO 1087* whose definition of *synonymy* [5.4.3] reads: “relation between designations representing only one concept in one language.” At face value, this could be understood to refer to different words that, in context, identify a single concept. More literally, however, this definition seems to refer to words that have only one meaning — a truly exceptional phenomenon. Perhaps in recognition of this absurdity, the glossators working on the revision of *ISO 1087* in 1994 created this record:

[5.4.3] **synonymy**: *Relations between designations representing only one concept.*

Admittedly, the defined concept is relevant and important for Onomastics but it is not what we normally understand to be a “synonym.” Most terminologists, I believe, would understand a statement that “*entry* and *record* are synonyms” to mean that these words represent similar concepts and that, although they can sometimes represent the same concept, in other contexts they can also represent different concepts. But that is not what the definition in [5.4.3] prescribes. The only way to avoid ambiguity, I think, is to abandon ‘synonymy’ as a term for the defined concept and replace it with another term.

The concept described in [5.4.3] is important and necessary for Terminology — when representing concepts it is typically possible to find several tags that can, unambiguously, in context, designate the same idea. That does not mean that these words lack other meanings — they may well be polysemic. What we are looking for, onomantically, is not information about what different lexemes mean but, rather, how a particular concept can be represented without ambiguity.

If, instead of arbitrarily assigning a new meaning to a word that already has well established meanings, a new word were to be coined for this purpose, it would be much easier, I think, for anyone to remember the new idea and to refer to it. To illustrate, consider I have already used tag to mean any form (word, phrase, acronym or symbol) that can unambiguously represent a concept. We could easily coin a neologism like *syn-tag* to mean one of several tags that can be used to represent a particular concept. Because of its similarity to *synonymy*, it should be easy to remember, and one would not have to distinguish a new meaning of ‘synonymy’ from the familiar meanings this word already has. If we accept the possibility of *syn-tags* as reasonable, we might also consider such *syn-tags* for it as *syn-term*. Anyone reluctant to use tag in its onomantic sense could substitute ‘*syn-term*,’ explaining that in this context, “term” does not mean a lexeme but it means a tag.

Polysemy designates a concept that is more important for lexicographers than *synonymy* — many dictionaries omit synonymics but all lexicographers must cope with polysemy, even though it is not difficult to identify them. In fact, almost every lexeme entered in dictionaries is polysemic, as shown by the several numbered definitions given in its entry, following sense numbers. *Polysemes* are defined as lexical units (words) with more than one meaning. Lexicographers don’t say much about polysemes because they assume that all entry words are polysemic: they just need to find out what their various meanings are.

Is this semantic concept relevant for terminologists who focus on the onomastic problems involved in representing concepts rather than the semantic problems arising from the effort to determine what words mean? The definition of *polysemy* in *ISO 1087* [5.4.4] refers to “designations” that represent “two or more concepts sharing certain characteristics.” From this one may conclude that terminologists view designations as forms that can represent one or more concepts, provided they “share certain characteristics.” The concept defined here replaces “lexeme” with “designation,” a word defined at [5.3.1] as “any representation of a concept.” The addition of “sharing certain characteristics” adds something to the idea of “polysemy” not present in the word’s prior meaning. What does it involve? No doubt there is a metaphorical connection between the meanings given to *record* by athletes, accountants and terminologists. However, if the word has only one meaning for terminologists, they can safely ignore whatever meanings it may also have in other subject fields. To take a more obvious example, a dictionary for computer buffs would define a mouse as it relates to the movement of cursors, while ignoring its use to identify a rodent.

From an Onomastic point of view, each concept needs a tag that can unambiguously represent it (whether or not the words used have other meanings). If the same expression is used to tag two or more concepts within the same field of study, however, we have to recognize its form as equivocal (see note #7 in Part II). To mark a term as “equivocal” clearly indicates that specialists in a given field must let their audience know which of the possible meanings of a term in their field of work they have in mind.

They need not worry about its meanings in other fields — consequently a polyseme may be unequivocal within any particular field. The relevant question is not whether the meanings of a term “share certain characteristics,” but whether they are used to represent more than one concept within the same special language (discourse community). The definition of “polysemy” stipulated in *ISO 1087* has no special terminological significance — rather, it looks like a clumsy re-definition of the semantic meaning of that word.

Homonymy. Its clumsiness becomes apparent when we take a closer look at *homonymy*, a term that identifies a lexical form used to represent different words (lexemes). When this occurs, separate dictionary entries are needed. Is ‘bank’ in ‘riverbank’ the same lexeme as ‘bank’ in ‘blood bank’? The answer does not hinge on whether the mean-

ings of these words “share certain characteristics”. Rather, it reflects a different etymology. However, lexicographers often puzzle about this question, and so they have to think a lot about homonyms. When homonyms are not homographs, e.g. *principal* vs. *principle*, it is easy enough to see that the two homophones are different words. However, *baste* can be identified as three different words — it is, therefore, a homonym but not a polyseme with three meanings.

Now, consider, the entry in *ISO 1087* for *homonyms* which are defined at [5.4.5] as a designation that represents two or more different concepts. This is, of course, the same idea as that identified in the standard definition of a “polyseme” (mentioned above). The only significant difference between this definition and that offered for “polyseme” in *ISO 1087* involves the addition, in the latter, of the phrase, “share similar characteristics”. Apparently, terminologists are expected to distinguish polysemes from homonyms by the degree of semantic difference that separates the concepts they represent. Apart from the difficulty involved in operationalizing this distinction, it has no onomantic significance that I can see. Actually, the two terminological entries seem to reflect a need to distinguish between two borrowed terms that have no terminological significance, even though they are important in Lexicography.

No doubt, terminologists should know what “synonymy”, “homonymy”, and “polysemy” mean in Lexicography and Linguistics. Since good definitions for them are readily available, these words — like “lexeme” — can properly be used by terminologists in their original senses, but re-defining them to suggest that they can also represent marginally different concepts in Terminology serves no useful purpose.

To summarize, terms that designate borrowed concepts should be defined by specialists in the fields from which they originate, including those mentioned above. However, when borrowed lexemes are used, metaphorically, as *meta-terms*, it is important to make sure that their new meanings can easily be distinguished from their original meanings and also, of course, that the new concepts assigned to them are, indeed, important for the borrowing field.

With respect to the words, *polysemy* and *homonymy*, these criteria have not been met: the new definitions stipulated for these words resemble their original meanings but are useless because they fail to convey the rationale for their use in making dictionaries. Consequently, they should be dropped from *ISO 1087*. As for *synonymy*, although the revised definition proposed in 1994 is, indeed, important in Terminology, most terminologists will remember the original meaning of “synonym” rather than the new concept stipulated for it. I suspect that, despite their resistance to neologisms, they would find it easier to remember the new concept if they used a new word, like *syn-tag* or *syn-term*, to designate it.

Phrasal Tags. In addition to meta-terms, many terms found in *ISO 1087* take the form of phrases, as listed here:

Exhibit Two: Phrasal Tags

alphabetical arrangement, base form, borrowed form, deprecated term, essential characteristic, permitted term, preferred term, individual concept, simple term, complex term, terminological phrase, term bank, partitive concept, subordinate concept, superordinate concept, word form

It is unnecessary to say more about these phrases now, but some additional comments on phrasal terms (p-tags) can be found below.

3. Unglossed Concepts

The need to think of and describe useful concepts before choosing tags for them can be illustrated by tag, the word mentioned above. From an onomantic point of view, every concept that needs to be used as a unit of knowledge within a given field requires tags that can identify it simply and unambiguously for specialists working in that field. Such tags need not be *monosemes* [2] — they may be polysemes that have other meanings provided the new meaning is semantically different enough so that the new concept will not easily be confused with older ones represented by the same word.

Consider ‘entry’ which, originally, meant the act of entering, then the vestibule through which one enters a building, then the right to enter, and the act of recording something. Its special meaning as a dictionary *entry* was added later and all these meanings can easily be distinguished from each other. But it is not easy to distinguish an onomantic “record” from a semantic “entry” and, therefore, the same word should not be used for both concepts — put differently, anyone who tries to give words a new meaning that is only slightly different from familiar earlier senses of the same word will almost certainly fail.

Although *tag* already has many meanings, none of them are close enough to the concept of a designator to cause confusion if the word is borrowed for use in Onomantics. If we start with the phrase, *concept tag*, it should be easy enough to gain acceptance for the truncated form, *tag*. Moreover, this is only a suggestion and anyone who prefers a different tag for the concept is free to suggest a syn-tag for it. The point is not to talk about what a word like ‘tag’ means but, rather, to decide how best to represent the concept of an unambiguous designator. Eventually, after several syn-terms for a concept have accumulated, one of them may gain enough acceptance to become a “preferred tag”.

It is important to recognize that while tags need to be unambiguous, they need not be *monosemic* — see note #2. Actually, any polyseme can be unambiguous if it has only one meaning within its context of use, such as a special language (or a discourse community). This statement hinges on our understanding of *ambiguity* as a cognitive perplexity that afflicts anyone who cannot understand what someone else means by a statement or word.

Let me use an example taken from *ISO 1087* to illustrate this point. The gloss for “polyseme” [5.4.4] offers bridge as an example of a term that can mean an engineering

structure, part of a string instrument, or a dental plate. No doubt, a lexicographer needs to know this in order to write a dictionary entry for “bridge,” but is it relevant for a terminologist? Consider that this word can be used without ambiguity in various subject fields: for engineers a bridge always refers to a structure over a gap; for musicians, part of an instrument; and for dentists something in a patient’s mouth. Actually, *bridge* is a polyseme with almost a score of familiar meanings—it can be used without ambiguity for quite different concepts in such diverse fields as navigation, physiognomy, optometry, musicology, literary appreciation and radio programming. Incidentally, ‘bridge’ is also a homonym used to refer to a card game, but this has absolutely no significance for the word’s meaning in engineering, musicology, etc.

Equivocalness. The situation is quite different when a word has two or more meanings in the same context. As noted above, *entry* is easily misunderstood by lexicographers and terminologists because it has more than one meaning within their separate discourse communities. For the former, it may mean an entry word or a paragraph starting with an entry word. For the latter, it may mean an onomantic record or a semantic entry. No doubt the word also has other senses—as noted above—but these additional meanings never create ambiguity for lexicographers or terminologists. Similarly, “bridge” could cause ambiguity in engineering if it were used to refer to different types of structures, perhaps a generic concept that includes overpasses for roads and a narrower concept limited to formations that span rivers.

In order to talk about the contexts of the use of words as sources of clarity or ambiguity, we cannot use “polysemy” and “homonymy”. Instead, we need different terms. More than a decade ago, in the INTERCOCTA project, we decided to speak of a tag as *unequivocal* if it could designate only one concept within a given subject field, and to call it *equivocal* if it had more than one meaning within that field. To alert readers of an onomantic record to the status of terms within their field of specialization, we marked all unequivocal tags (terms) as *UT* and equivocal terms (tags) as *ET*. Every *ET* had a cross-reference to enable readers to identify and compare its meanings within their field. For example, terminologists might like to know that “entry” is sometimes used in Terminology to mean a semantic gloss, and sometimes an onomantic gloss, but they could ignore the fact that this word can also mean a vestibule, the act of entering a building, or the right to enter. Such information is readily available in ordinary dictionaries and is not needed in a glossary for terminologists.

Lexicographers, of course, have no need for the concepts represented here as “equivocal/unequivocal.” Their preoccupation with the semantic analysis of lexemes does not engender questions about how to represent concepts. Although terminologists surely need to be able to specify the context within which a term is ambiguous or not, no gloss for the equivocalness of terms can be found in *ISO 1087*. Could it be that the lack of glosses for this concept

arose because there are no terms for it in Lexicography? Starting with term lists—see [6.1.2.6], or {7}, above—the glossators of *ISO 1087* did not think about these concepts, even though they are more helpful for anyone seeking to overcome problems of ambiguity than the lexical concepts associated with “homonymy” and “polysemy.”

Actually, there are other concepts that, I think, are much needed by terminologists but they are not included in *ISO 1087*. I call them *unglossed concepts* to call attention to the fact that, although they are relevant and useful for terminologists, no glosses for them are included in the most important glossary for Terminology as a subject field, i.e., *ISO 1087*. Some of them—in addition to equivocal and unequivocal—were described in Parts I and II of this paper: they include: *representation*, *description*, *cue*, *tag*, and *notation* (see {1, 1.1, 1.2, 1.2.1, and 1.2.2}) No doubt, plugging them into a revised version of *ISO 1087* would conflict with the core notions of *definition*, *designation*, *symbol*, *term* and *polysemy* (defined at [4.1, 5.3.1, 5.3.1.1, 5.3.1.2, 5.4.4]). Detailed comparisons between these terms (tags) were offered above in Part II so I shall not say anything more about them here. [3]

Anticipating vigorous opposition to any changes that could, at the core concept level, transform thinking about Terminology in an Onomantic (concept representation) direction, we might imagine that some less threatening changes could be accepted first. For example, the two concepts of “equivocalness” (*equivocal tag (ET)* and *unequivocal tag (UT)*) could replace the concepts represented by *polysemy*, *homonymy* and *monosemy*. Since these terms are, I believe, rarely used by terminologists and they are often disputed, who would resist their loss? By contrast, the face validity of the “equivocal/unequivocal” contrast is strong and, I believe, they could easily be accepted.

Similar remarks can be made about various other concepts that are needed in Terminology but not in Lexicography—hence no established terms for them exist and they remain unglossed in *ISO 1087*. Elsewhere I have identified a score of them but here I will give only one example—in addition to those discussed above.

Tracking Related Concepts. Although a system of concepts can be represented at the macro-level by a classification system whose notations appear as the head forms in concept records, we also need a tracking system at the *micro-level* that can identify close relations between related concepts in that system.

Tracks that manifest such relations can be built into the text of all concept records. There are three kinds of such tracks. The first kind is included in the text of a concept description (definition): in the INTERCOCTA project, we refer to it as an *entailed term*—it might better be called an “entailed tag” or just an “entailment.” In a hypertext system (as in the World Wide Web) such tags could be hyperlinks that support jumps to the records where the concepts they

designate (tag) are described. For example, you will find *representation* {1} entailed in the description of “concept cue” at {1.2}. However, in printed formats also, entailed notations signalize entailments and provide a convenient way to find the “superordinates” for any given concept. When two or more entailed terms occur in a single concept description, only one of them would be superordinate in a mono-hierarchical classification scheme — but if several hierarchies are imagined, then each entailment could be superordinate in one of them.[4]

A second type of tracking supports jumps to concept records in which the tracked concept is used as a defining element. By contrast with entailments, they cannot be included in the text of a concept description. However, they can easily be added as a separate field within the concept record: thus, under {1} *representation* (see Schedule IA in Part I or II of this essay) we might add this line:

TR: {1.1} description, {1.2} cue

Such a tracing (“TR” for short) would enable users to find the related, typically subordinate, concepts in which *representation* appears as an entailed term [5]. Similarly, within the record for *cue* {1.2} we could add the line: “TR: {1.2.1} tag; and {1.2.2} notation”, so that readers could easily find narrower concepts for different types of cue. A look at Schedule IA will help readers see, more concretely, how these relationships interlock with each other.

In addition to these two forms of tracking (entailment and tracing) there is a third form which involves *referring*. It is often useful to refer readers from any given concept to related concepts whose characteristics typically overlap each other but lack tight hierarchic relationships. The expression, *RT*, is typically used in indexing language thesauri to mark such relationships. RTs can be tracked in a conceptual glossary, but not by entailments or tracings. The simplest procedure is to use cross-references to call the attention of readers to these relationships. Such references can be found for a few, but very few, of the concepts defined in *ISO 1087* [6].

Concept records for these additional concepts could easily be inserted in the corpus of *ISO 1087* and they would conflict in no way with the existing records. Instead, they would amplify what is already available and call attention to a practice that already exists, though without formal recognition. The 1990 version of *ISO 1087* carefully marks entailed terms, even though it offers no record to explain the practice. Sometimes it traces terms by adding notation numbers after the word ‘example’, but, so far as I could discover, it provides no references for related concepts. If entries for the three types of tracking — entailments, tracings, and references — were to be added to the text of *ISO 1087*, it might facilitate the use of these extremely useful micro-level clues for systematic linkages between concepts.

Notes

1. In Part I of this essay (See *Knowledge Organization*, 23:1 (1996) pp. 26, pp. 25-33) the Onomantic orientation recommended in Picht and Draskau (1985) was contrasted with the Semantic mode of analysis recommended by Sager (1990). The former accepts the responsibility of terminologists to facilitate the introduction and designation of new systems of concepts in emerging fields of specialization, whereas the latter assumes that the vocabulary of Special Languages is well enough established so that alphabetized glossaries or terms will meet the needs of specialists. Terminography is a good term to use for this kind of work. Both approaches are needed. In older fields of knowledge, usage has led to widespread acceptance of many concepts and terms and, in such fields, standard lexicographic methods are quite appropriate for Terminography. However, Terminology also deals with the Onomantic processes whereby new concepts are introduced and designators are found for them. The theory of Terminology, as a science, should include both types of activity. In the INTERCOCTA Project, the word *nomenclator* was used for a type of conceptual glossary that concerns itself with the identification of new concepts in emerging fields of study, and the development of tags (designators) that can be used to represent them. If Terminology is thought of as a field of work that includes both Terminography and the Onomantic procedures needed to develop nomenclators, this would be a useful step.

Unfortunately, in practice no sharp lines can be drawn and we often find it necessary to mix records for new concepts with entries that identify well-established terms because, in growing fields of study, both can be found. Terminologists need to work with both the Semantic and the Onomantic aspects of a developing vocabulary, leading, no doubt, to unavoidable confusion.

If we clarify these important distinctions in our own minds, we can then usefully distinguish *Terminography* (as a branch of Terminology devoted to the listing and identification of established terms in special languages) from *Onomantics*, as a subfield focussed on the development of new concepts and terms for emerging fields of knowledge. Both Terminography and Onomantics could then be recognized as different though related concentrations within the broader category of Terminology. If this were done, the *Terminology of Terminology* (ISO 1087) could be divided into two parts: the Onomantic part would include many of the concepts now described in this glossary, while the Terminographic part would contain many of its entry terms, defined as they are, traditionally, in Lexicography.

2. An obvious antonym to “polysemy” is *monosemy*. This term was introduced in ISO 1087 at [5.4.1] to represent designations that refer to only one concept. Since ‘polysemy’ does not occur in any dictionary that I have, I believe it is not used by lexicographers. However, it is known to linguists as revealed by the entry for it in Hartmann and Stork’s *Dictionary for Linguistics*. Since the terminological meaning given to “monosemy” is almost the same as its linguistic meaning, we may treat it as a borrowed concept rather than a meta-term.

3. However, let me add a note: the least conflictual among these terms is *representation* which could easily be inserted before [4.1] in ISO 1087 as a genus that includes all these basic notions. *Description* has the same meaning as *definition* without its misleading implications and could, therefore, be substituted for [4.1]. *Cue* and *designation* are almost synonyms (syn-tags), except that the latter includes the names [5.3.1.3] of objects [2.1] (individual concepts) that are, by definition, excluded from the scope of tags in Onomantics where only general concepts are considered.

To replace *term* [5.3.1.2] with *tag* {1.2.1} would be stoutly resisted but could well be the most important move because “term” is both equivocal and incorrectly restrictive: it is equivocal because even terminologists often use it as a synonym for *lexeme* and it is restrictive

because it excludes symbols [5.3.1.1] even though *symbol* are also used as tags. To replace *symbol* [5.3.1.1] with *notation* {1.2.2} ought not to provoke resistance because, clearly, “symbols” may be tags, representing concepts, and because “notation” is already well established as a tag for “cues that represent a concept as part of a system of concepts” {1.2.1}.

4. Because this notion may not easily be grasped, let me offer an illustration. Consider definition [6.2.2.1] for *entry term*. It reads: “term heading an entry [6.2.2.2] in a terminological dictionary [6.2.1.1]”. Two entailments are indicated by notations: [6.2.2.2] shows that an “entry term” is part of an “entry” and reveals the location of the gloss for this superordinate concept. A second entailment, [6.2.1.1] identifies “terminological dictionary” as another superordinate concept. Although neither of these concepts is identified as a superordinate by the notation system used in ISO 1087, we can well imagine a scheme in which “entry term” would be listed as part of an “entry” which, in turn, is viewed as an element in a “terminological dictionary”.

Whole/partial hierarchies cut across analytic hierarchies and permit any concept to be subordinated to more than one superordinate concept. Consider that the “genus” in analytic definitions clearly points to a superordinate concept, as does the “differentiae”, provided one admits more than one hierarchic classification scheme. A “gold ring,” for example, is a type of ring, but also a type of gold object. However, the hierarchic status of entailed terms is a secondary consideration — the main point is that entailments identify entries in a glossary where each entailed term is defined.

5. In hypertext, as in the WWW, we could use the words, like *description* and *cue*, instead of their notations, as the tracings to identify the records where types of concept representation are described. Computer links support the relevant jumps without reference to the order in which concepts are filed. By contrast, in a printed conceptual glossary, notations, like {1.1} and {1.2}, are needed to enable readers to find the traced records in a systematic array based on a classification scheme.

6. To grasp this point more clearly, draw two overlapping circles and mark one “A” and the other “B”. Part of A does not overlap B, and part of B does not overlap A, but some portion of each circle includes part of the other circle — let us call the overlapping portion “AB”. To illustrate such a relationship, consider term [5.3.1.2] and tag {1.2.1}. Some terms (A) represent several concepts but tags do not; some tags (B) take the form of symbols, but terms do not; but frequently tags and terms are syn-tags (AB) — i.e. they are lexical expressions used to represent only one concept. In a conceptual glossary, related terms (RTs) can be identified by cross-references, such as:

Cf. term [5.3.1.2] in the record for tag {1.2.1}; and
Cf. tag {1.2.1} in the record for term [5.3.1.2].

This technique calls the reader’s attention to the fact that the concepts designated by ‘term’ and ‘tag’ overlap each other but they are not syn-tags, nor do they have a genus/species relationship.

References

- (1) Burgcr, Henry G. 1984. *The Wordtree*. Merriam, Kansas: The Wordtree.
- (2) 1990. *Compilation of ASTM Standard Definitions*. 7th ed. Philadelphia, PA: ASTM Committee on Terminology.
- (3) Dahlberg, I. 1978. A Referent-Oriented, Analytical Concept Theory for INTERCONCEPT. *Int. Classif.* 5:3, p.142-151).
- (4) Dahlberg, I. 1995. *Conceptual Structures and Systematization*. *IFID J.* 20:3, p. 9-24.
- (5) Gilreath, C. T. 1995. In: Wright, S.E., Strehlow, R.A. (Eds.): *Resolving Term Disputes with Weighted Onometrics* “Standardizing and Harmonizing Terminology”. Philadelphia, PA: ASTM. pp. 25-52
- (6) Hartmann, R. R. K. (Ed.) 1983. *Lexicography: Principles and Practice*. London: Academic Press.
- (7) Hartmann, R.R.K., Stork, F.C. 1972. *Dictionary of Language and Linguistics*. London: Applied Science Publishers.
- (8) ISO/TC37, 1969. *Vocabulary of Terminology*. Geneva, Switzerland: International Organization for Standardization.
- (9) ISO/TC37, 1990. *Terminology — Vocabulary: International Standard*. ISO 1087. Geneva, Switzerland: ISO.
- (10) ISO/TC37, 1994. *Terminology Work — Vocabulary Pt.1*. Geneva: ISO.
- (11) Lyons, J. 1977. *Semantics*. Vol.1. Cambridge, UK: Cambridge University Press.
- (12) Ogden and Richards, 1923. p.11
- (13) Picht, H., Draskau, J. 1985. *Terminology: An Introduction*. University of Surrey, GB
- (14) Riggs, F. W. 1982. In: Riggs, F.W. (Ed.): *COCTA-Glossaries: the ana-semantic perspective*. In: *The CONTA Conference: Proc. Conf. on Conceptual and Terminological Analysis in the Social Sciences*. Frankfurt: INDEKS Verlag. p.234-276.
- (15) Riggs, F.W. 1985. *Ethnicity — Intercocata Glossary*. Concepts and Terms used in Ethnicity Research. Privately printed in Honolulu, under the auspices of the International Social Science Council, with the financial assistance of UNESCO.
- (16) Riggs, F.W. 1988. *Dictionary of Archival Terminology*. *Rev. in: Int. J. Lexicography*. 1:4, p. 369-373.
- (17) Riggs, F.W. 1989. *Terminology and Lexicography: Their Complementarity*. *Int. J. Lexicography*. Vol.2:2. p.89-110.
- (18) Riggs, F.W. 1993a. *Social Science Terminology: Basic Problems and Proposed Solutions*. In: Sonneveld, H.B. (Ed.) *Terminology: Applications in Interdisciplinary Communication*. Amsterdam: John Benjamins. p. 195-220.
- (19) Riggs, F.W. 1993b. *Review of Juan Sager’s, A Practical Course in Terminology Processing*. *Int. J. Lexicography* 6:1, p. 70-77.
- (20) Riggs, F.W. 1995. *The Representation of Concept Systems*. In: Wright, S.E., Strehlow, R. (Eds.): *Standardizing and Harmonizing Terminology*. Philadelphia, PA: ASTM. p.63-74
- (30) Riggs, F.W., Malkia, M., Budin, G. 1996. *Descriptive Terminology: the INTERCOCTA approach*. In: Wright, S.E., Budin, G. (Eds.): *Handbook of Terminology*, Amsterdam: John Benjamins. (in press)
- (31) Robinson, J. 1993. *A Glossary of Contemporary English Lexicographical Terminology*. *Dictionaries No.5*, p. 76-114.
- (32) Chapman, R.L. (Ed.) *Roget’s International Thesaurus*. (1996) New York: Harper Collins.
- (33) *Roget’s II: The New Thesaurus*. (1980) American Heritage Dictionary. Boston: Houghton Mifflin Co.
- (34) Sager, J.C. 1990. *A Practical Course in Terminology Processing*. Amsterdam: John Benjamins.
- (35) Sheldon, W.H. 1936. *Psychology and the Promethean Will*. New York: Harper & Brothers.
- (36) Sonneveld, H.B., Lochning, K.-L. (Eds.): 1993 *Terminology: Applications in Interdisciplinary Communication*. Amsterdam: John Benjamins.
- (37) *Webster’s Encyclopedic Unabridged Dictionary of the English Language*. New York, NY: Gramercy Books 1989.
- (38) Wersig, G., Neveling, U. 1976. *Terminology of Documentation*. Paris: UNESCO.

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