Rethinking terminology standards: 704 & 1087

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Terminology

2 dimensions

conceptual

linguistic
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Why Rethinking ISO Conceptual Principles?

Why Rethinking ISO Linguistics Principles?
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ISO 704: 2009 - Terminology work - Principles and methods

1 Scope 704

This International Standard establishes the basic principles and methods for preparing and compiling terminologies both inside and outside the framework of standardization, and describes the links between objects, concepts, and their terminological representations. It also establishes general principles governing the formation of terms and appellations and the formulation of definitions. Full and complete understanding of these principles requires some background knowledge of terminology work. The principles are general in nature and this International Standard is applicable to terminology work in scientific, technological, industrial, administrative and other fields of knowledge.

This International Standard does not stipulate procedures for the layout of international terminology standards, which are treated in ISO 10241.
Scope 1087

This International Standard establishes a basic vocabulary for the theory and application of terminology work. It does not embrace the vocabulary dealing with computer applications in terminology work which is covered by ISO 1087-2.

The layout is designed according to ISO 10241, unless otherwise specified.
Why Rethinking ISO Conceptual Principles?

✔ **Operationalization of Terminology**  
* i.e. a computational representation of the Conceptual System

- Computer Aided Translation  
- (Multilingual) Specialized Dictionaries  
- (Multilingual) Content Management Systems  
- Semantic Search Engine  
- Knowledge Capitalization  
- Knowledge Mapping  
- e-Learning  
- Semantic Web  

⚠️ The ISO conceptual principles cannot be operationalized
Why Rethinking ISO Conceptual Principles?

✔ Epistemological and Coherency Problems

Individual versus Individual Concept

- Canada is an instance of Country, not a subordinate concept of Country
- “The President of USA” is a designation of an individual not of a concept

Definition versus Description

- Does “having colour” describe or define a concept?
- Do “having a ball on its underside” and “having colour” represent knowledge of the same nature?
Propositions

Re-Thinking the ISO Conceptual Principles

Terminology work is multidisciplinary and draws support from a number of disciplines (e.g. logic, epistemology, philosophy of science, linguistics, translation studies, information science and cognitive sciences)

ISO 704:2009.p.v

- Epistemology: Conceptualization
- Logic: Specification - Consistency
- Knowledge engineering: Representation - Operationalization

 Ontology
Combining Ontology & Terminology (Ontotermontology)
Propositions

- No individual
- Individual concept which corresponds to only one object
- General concept which corresponds to two or more objects

Epistemological and Logical Point of View

☑ Individual
☑ Concept: the definition of a concept does not depend on the cardinality of its extension (1, 2, more, or even 0)
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Overview of the item “Designation”

1. 704 item 7, from page 34 to 43
2. 1087 item 3.4, from page 6 to 10
Rethinking terminology standards: 704 & 1087

7. Designations
7.1 Type of designations
7.2 Terms
   7.2.1 Term-concept relation
   7.2.2 Monosemy
   7.2.3 Homonymy
   7.2.4 Synonymy
   7.2.5 Harmonization
   7.2.6 Deprecation of terms
   7.2.7 Transliteration and transcription
7.3 Appellations
7.4 Principles for term/appellations formation
7.5 Symbols
Rethinking terminology standards: 704 & 1087

Regarding designations, some points need to be discussed:

• Rethink the structure both standards
• Reanalyse diagrams in 1087 (pag. 26 to 33)
• Rewrite some definitions
• Include or exclude some notes
• Inclusion of missing concepts and/or terms
• Exclusion of some concept and/or terms
• Confirm that the definitions match in both standards
• Check the internal coherence of both standards
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1087

designation – representation of a concept by a sign which denotes it.
NOTE In terminology work (3.6.1) three types of designations are distinguished: symbols, appellations (3.4.2) and terms (3.4.3).

term – verbal designation of a general concept in a specific subject field
NOTE A term may contain symbols and can have variants, e.g. different forms of spelling.
Item designation in 704 & 1087-1

designation

- term
- appellation
- symbol
Rethinking terminology standards: 704 & 1087

Problems to solve

(1) Terms and appellations are “verbal designations”
(2) “Symbol” is not defined. But it is considered a designation! Is it a term?
(3) What about nonverbal representation? Is it a term?
(4) Are term and designation synonyms?

   Sometimes it looks like. Sometimes it does not
Item designation in 704 & 1087-1

- term
- designation
- appellation
- symbol
- verbal
- nonverbal representation
The designation acts as a synthesis of the definition. A designation is a representation of a concept by linguistic or non-linguistic means.

A term is a designation consisting of one or more words representing a general concept in a special language in a specific subject field. A simple term contains only one root, while a term containing two or more roots is called a complex term.
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Questions about “designation”

1. Is a designation a representation?
2. “to designate” and “to represent” are different thinks/acts
3. The designation belongs to linguistic level; the representation belongs to the conceptual level?
4. Synthesis of a definition?
5. Are “designation” and “term” synonyms?
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Terms
In 1087 and 704 the definitions given are of different nature.

1087 – the act of designate (relation between concept and linguistic level)
704  – formation of the words that are designations (morphology: exclusively linguistic level)
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7.5 Symbols
Item designation 704: structure

term / designation

« function »

term formation

Meaning relation (« relation de sens »)

planification / standardization
“function”: designation, appellation, term
   (include symbol? Nonverbal representation?)

Sense relations: synonymy, antonymy, monoymy, monoosemy, polysemy, homonymy

Term formation: simple term, complex term, abbreviation, acronym, initialism, clipped term, blend-term

Planning / Standardization: borrowed term, preferred term, admitted term, deprecated term, obsolete term

Neoterm, terminologization ??
meaning relations between terms

**monosemy** is the relation between *designations* and *concepts* in which one designation represents only one concept.

*Designations* in such a relation are called monosemes.

**polysemy:** missing. But it is defined in 1087

**synonymy:** shouldn’t “quasi-synonyme” be 7.2.5? Very important phenomena in medicine, for instance

→ Language phenomena, not conceptual phenomena
**Monosemy** is the relation between designations and concepts in which one designation represents only one concept. Designations in such a relation are called monosemes.

Note: the designations in the relation of monosemy are called monosemes.
seme = semantic feature

1. Content element having a distinctive value and marking often binary oppositions;
2. seme is the minimal semantic unit, that cannot be independent and is always produced inside a semantic configuration

monosemy

1. univoke and stable sens in every use
2. Property of a word to have only one meaning
Polysemy
relation between designations (3.4.1) and concepts (3.2.1) in a given language in which one designation represents two or more concepts sharing certain characteristics (3.2.4)
Polysemy

Polysemy is the propriety of a sign that has many meanings
An reorganization of the structure, has implications on the definitions.

Why don’t we introduce the term of mono-referentiality to designate the relation between a term and a concept, and leave monosemy for a language as a discourse property?
# Item designation 704: structure

A reorganization of the structure, has implications on the definitions

<table>
<thead>
<tr>
<th>Meaning relation</th>
<th>Relation between designation and concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mono-semy</td>
<td>mono-reference</td>
</tr>
<tr>
<td>Poly-semy</td>
<td>poly-reference</td>
</tr>
</tbody>
</table>
A.5 Designations

- **designation**: representation of a concept by a sign that denotes it
  - (non-verbal designation)
  - (verbal designation)
- **abbreviation**
- **general concept**
- **term**: verbal designation of a general concept in a specific subject field
- **appellation**: verbal designation of an individual concept
- **blend**: term formed by clipping and combining two separate terms
- **obsolete term**: term which is no longer in common use
- **borrowed term**: term taken from another language or from another subject field
- **preferred term**: term rated according to the scale of the term acceptability rating as the primary term for a given concept
- **admitted term**: term rated according to the scale of the term acceptability rating as a synonym for a preferred term
- **deprecatated term**: term rated according to the scale of the term acceptability rating as undesired
- **neoterm**: new term coined for a given concept
- **term acceptability rating**: rating established from a predetermined scale and used to evaluate a term
Item designation 704: structure

The imprecisions and sometimes some lack of coherence in the definitions has consequences for terminologists work:

The standards must have:

1. Good definitions from the conceptual and the linguistic point of view;
2. Cannot confuse the 2 dimensions of terminology;
3. Should not privilege one of the dimensions