

THE BSI ROOT THESAURUS: DOES IT SERVE TRANSLATORS?

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ABSTRACT: Technical thesauri can be of great use to translators although there are pitfalls. Some different types of thesaurus are described briefly, and the value of ROOT to terminologists is outlined.

To my horror I find myself addressing an audience of terminologists on a subject whose own terminology is, er, woolly? loose? vague? ambiguous? misty? nebulous? perplexed? mysterious? mystic? mystical?... or is it hidden? recondite? abstruse? or even transcendental?. No prizes for guessing whose thesaurus I consulted to find that collection of terms. If I am not mistaken it was Roget who coined the term "thesaurus" to describe his treasure-store of terminology. He could not have foreseen how his own term would be borrowed, adapted, or even perverted, to end up being used for several different concepts which are close enough to have something in common, but distinct enough to cause endless confusion in conversations where the term is not defined. My own remarks will be limited in the main to technical thesauri, but still I'd better start by indicating some meanings of "thesaurus".

Table 1: Some uses of the term "thesaurus"

- a) Simple term list for a particular information retrieval system. (Shown only those terms which are "allowed" for indexing and searching).
- b) Elaborate term list for a particular information retrieval system. (Shows "allowed" terms plus instructions for dealing with "non-preferred" terms plus guidance as to relationships between terms.)
- c) Elaborate term list for general application. (Structured as in b) but intended to give inspiration to people searching unfamiliar bibliographic databases.)
- d) Machine-held list of "allowed" character strings for database validation.

Table 1 shows only some of the meanings. While both a) and d) are fairly straightforward lists, b) and hence c) can be infinitely variable in format. Some list the terms in alphabetical order, some in subject order, some in both, some even list the terms in three or four orders including permuted indexes, hierarchical listings and so on. Those in subject order can reassemble straightforward classification schemes, can involve elaborate symbology to show relationships between terms, or can lay terms out on charts called arrowgraphs or association maps. (For examples of different layouts, see figures 1, 3 and 4). Now in principle, a), b), c) and d) are quite distinct from each other. In real life, however, any technical thesaurus you happen to pick up is likely to have its own unique mix of the features in any of the four categories.

The BSI ROOT Thesaurus, in being quite exceptional, is no exception to that rule. It was designed, not exactly for one particular database, but for any bibliographic database holding standards or technical regulations. This effectively made its subject area so broad that it could also be used for other people's databases covering a wide range of technologies. So it was never a type a) thesaurus; it started off as a b), grew to be a c) and now that we are putting it up on computer it will become a d) as well.

"So what?" you may say. Looking through the journal Terminologie recently, I chanced on the following paragraphs in an article by Prof. Helmut Felber (3):

The meaning (concept) of a term is dependent on the system of concepts. The term keeps the particular meaning also within the subject-context, i.e. the meaning it has in the system of concepts.

The thesaurus word is a word - mostly a term - or a name, which is used as a descriptor or non-descriptor for information retrieval.

A descriptor is a thesaurus word, which is prescribed for use in the information system. For this purpose, a term or name is selected from the existing synonyms or quasi-synonyms. The meaning of this term is thus fixed for this information system, and may deviate from its general usage within a technical language. For this reason, a thesaurus cannot be used for technical translations.

As I had just been given the job of addressing you translators on the BSI ROOT Thesaurus, I must confess a crease or two appeared on my forehead.

One's first reaction is of course that Prof. Felber is absolutely right. A thesaurus designed for a specific in-house application can and should manipulate terms in unconventional ways, where this assists with effective retrieval of information.

For example, one of the functions of such a thesaurus is to make sure that all users (indexers and searchers) use the same term for the same concepts. Thus there are instructions such as:

Electric condensers	USE	Capacitors
Airplanes	USE	Aeroplanes
Air cushion vehicles	USE	Hovercraft
Radiators	USE	Heaters
Footballs	USE	Sports equipment

Notice that while the first two examples show undeniable synonyms, the other three are different. Not all radiators are heaters, and not all heaters are radiators. In ROOT, for example, these two could emphatically not be considered synonyms because we need to distinguish the concepts. But conceivably the thesaurus of a vegetable-growers association could usefully lump all sorts of heaters together; after all, they so not have to cope with literature about car radiators. Similarly, many thesauri could justifiably use the term "Sports equipment" to cover everything from water wings to a billiard cue.

In general, in-house thesauri [types a) and b)], in the name of effectiveness and efficiency, aim to cut down the number of "allowed" terms of descriptors, by controlling true synonyms and quasi-synonyms and by collecting together under one descriptor any narrower terms considered too specific for inclusion.

But for type c) applications the matter changes. True synonyms must still be controlled, but more caution is needed with quasi-synonyms. Now that online bibliographic databases are springing up all over the place there is an increasing demand for thesauri which will help searchers to think of other words for the concept they have in mind. Some databases have their own thesauri (used by their indexers and available to searchers); others have to be accessed by free language terms, and it can be very difficult trying to think of the words someone else might have used to express the solution to a problem you had in mind. Hence the demand for the so-called "search thesaurus".

The "search thesaurus" does not have to invoke quasi-synonyms or subsume specific terms under a broader heading. It is more like Roget's thesaurus in giving inspiration as to alternative terminology. As compared with a dictionary, for translation purposes it has the disadvantage of not showing a variety of definitions for a single term, but if it has a subject (or hierarchical) section then it has the advantage of showing whole arrays of related terms on one page.

To sum up, when using a thesaurus the translator must be cautious, particularly about quasi-synonyms. But, with respect to Prof. Felber, caution should not prevent his taking advantage of the many excellent technical thesauri available today. (See also reference 4).

Finally I must return to ROOT. ROOT does invoke quasi-synonyms from time to time (for example, see Fire alarms = Fire sirens = Smoke alarms in Figure 1), but avoids gross distortion of terminology. Whenever possible it follows definitions contained in British Standards. The Subject display (see Figure 1, showing a small part of the schedule for Safety measures) goes to great pains to lay terms out in a way which

G Environmental and safety engineering

GM/GY	Safety engineering (continued)
GU/GY	Safety measures (continued)
GV	Safety devices (continued)
GVG	Restraint systems (protective) (continued)
GVG.G	Safety lines (continued)
	= Rescue lines
	* < Ropes NXG/NXH
GVG.GG	Safety anchorages
	= Anchorages (safety)
GVG.K	Safety nets
	= Nets (safety)
	* - Construction equipment RU/RV
	* - Fans (scaffolding) RVX.O
GVG.R	Passenger restraint systems
	= Restraint systems (passengers)
	* - Vehicle components QM/QN
GVG.RC	Seat belts
	* < Safety harnesses GVG.C
	* - Road safety GQC
GVG.RCR	Seat belt anchorages
	= Anchorages (seat belts)
GVG.RH	Air bags (vehicle safety)
GVG.RK	Head supports
	<i>(By type of passenger)</i>
GVG.RR	Child-restraining devices
	* - Childproof equipment GVX
	* - Leading reins (babies) XIT
GVG.RRR	Baby seats (vehicles)
GVJ	Warning devices
	* > Lighthouses RCM.MCR
	* - Signs LBE
	* - Sound generators NMF.F
	* - Vehicle components QM/QN
GVJ.C	Warning lights
	= Danger lamps
	* - Indicator lights RLH.V
GVJ.CC	Hazard warning lights
	* - Direction indicators QMU.J
GVJ.J	Alarm systems
	* - Security systems in buildings RHC
	* - Sound generators NMF.F
GVJ.JD	Fire alarms
	= Fire sirens
	= Smoke alarms
	* - Fire safety GOJ
	* - Fire safety in buildings RHH/RHN
GVJ.JH	Burglar alarms
	= Intruder alarms
	* - Anti-burglar measures RHC.H
	* - Crime prevention devices GVT
GVJ.JL	Safe-load indicators
	* - Safe working load CKO.N
GVJ.JP	Flares
	* - Marine signalling devices QFM
GVJ.JV	Special-purpose alarms
	<i>[Includes those for ill and elderly]</i>
GVJ.S	Warning triangles
	= Advance warning triangles
	* Triangles (warning of obstruction)

Figure 1: A sample page from the Subject display of the BSI ROOT Thesaurus

6 Key to symbols

Symbol	Meaning
<	Broader term
>	Narrower term
-	Related term
•<	Broader term in an alternative hierarchy
*>	Narrower term in an alternative hierarchy
*-	Related term in an alternative hierarchy
=	Non-preferred synonym or quasi-synonym
—	Use. (The term or combination of terms following the arrow should be used instead of the term preceding it)
+	This symbol appears between terms which are used to synthesize a given concept
**	Synthesized term (The term which follows the symbol is a non-descriptor which should be represented by a combination of terms, as indicated)
= * *	The term (a non-descriptor) following the symbol should be represented by the combination of descriptors preceding it
[...]	Scope note or instructional note. This clarifies the meaning of a term in the context of the thesaurus or gives guidance on the use of a term
(By ...)	Facet indicator. This is a device used in the subject display section to group together terms having a common characteristic

Figure 2: Key to symbols used in the BSI ROOT Thesaurus

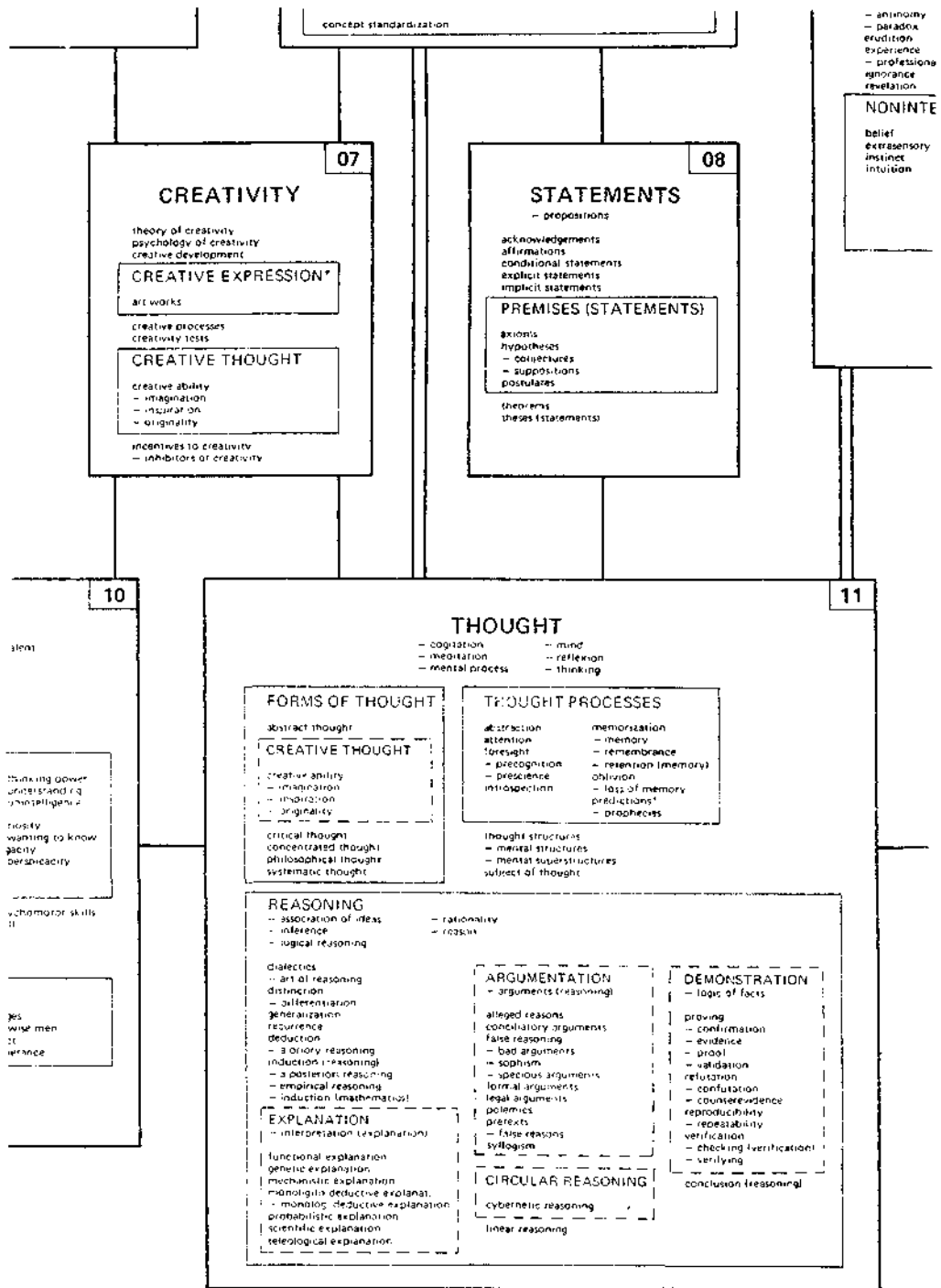


Figure 3: Detail from the Terminological graphic displays of SPINES Thesaurus

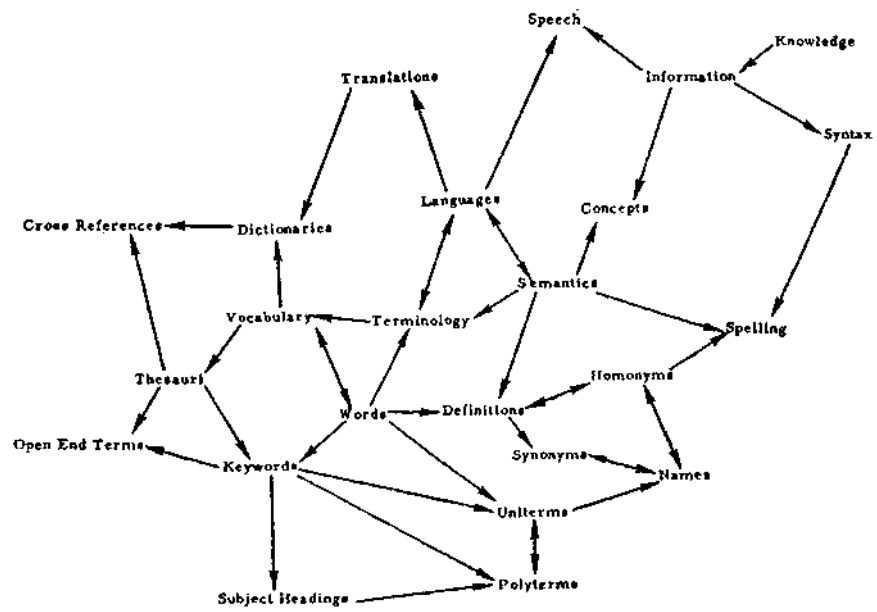


Figure 4 : Example of an arrowgraph from Euratom Thesaurus

shows up relationships. For some of the concepts in the area of Safety measures, I as a layman would not have known what terms to apply, but this array gives me considerable guidance. If Roget were alive today, I think he might be working with us on ROOT!

REFERENCES

- (1) ROGET'S THESAURUS of English Words and Phrases
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- (4) LEVY, S. Translating using a thesaurus. Newsletter of the Translators' Guild, Vol. VI no. 2, Spring 1981, 2-3.