Roget’s Thesaurus Conceptual Hierarchy

Class
  Roman sub-class (R-Class)
  Letter sub-class (L-Class)

Category
  [POS]: Paragraph
  Sense: {Entry, entry, entry, ... [Crossref]}

Sense Index

(Word Index)
Under the Hierarchy: words are polysemous
40. Addition

NOUNS 1.
...

ADVS. 10. and also, additionally, in addition, and all [coll.], yet, extra, on the side [slang], moreover, farther, further, furthermore, overplus, again, more, similarly, likewise, by the same sign, by the same token, item, also, then, to boot, and so, as well, too, else, au reste [F.], besides, plus, into the bargain, past, on top of, over, above, over and above, at that [coll.], beyond, beside; ...

PREPS. etc. 11 with, including ...

ENTRY=40:10:1-over
Word Index

over

verbs
...
advs. additionally 40:10
throughout 56.18
...
preps. concerning 9.12
exceeding 36.20
...
on 227.40
...
OVER AGAINST
...
overabound
...

ENTRY=40:10:1-over
## Word-Sense Relation

<table>
<thead>
<tr>
<th>WORDS</th>
<th>Synonymy</th>
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<tr>
<td>over</td>
<td>above</td>
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<td>9:12:1</td>
<td>x</td>
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<td>206:24:</td>
<td>x</td>
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<td>206:27:</td>
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<td>227:40:</td>
<td>x</td>
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<td>40:10:1</td>
<td>x</td>
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<td>...</td>
<td>x</td>
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</tbody>
</table>

**ENTRY=40:10:1-over**
Senses (8) and synonyms (49) of “agitate”
Genus and Differentiae

A tiger is a big cat with stripes. An owl is a bird with large eyes.

Local Neighbourhood – one sense of a word

• Genus – synonym found in more than one sense of word
• Differentia – synonym found in only one sense of word

One sense of Over

36:13:1 Superior; (is a)

major, upper, superior, over, higher, greater, above, better
Word-Sense Context (FCA)

<table>
<thead>
<tr>
<th></th>
<th>Genus Sense</th>
<th>Differentiating Sense 2</th>
<th>Differentiating Sense 1</th>
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<tbody>
<tr>
<td>Genus Word</td>
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<tr>
<td>Differentiating Word 1</td>
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<tr>
<td>Differentiating Word 2</td>
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<td>X</td>
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</tr>
</tbody>
</table>
Lattice of all Objects and Attributes

{Genus Sense}

{Word 1, Word 2, Genus Word}

{Sense 1, Genus Sense}  {Sense 2, Genus Sense}

{Genus Word, Word 1}  {Genus Word, Word 2}

{Sense 1, Sense 2, Genus Sense}

{Genus Word}

{Genus Word}
Genus and Differentiae Only

Genus  Sense

Differentiating Sense 1  Differentiating Sense 2

Differentiating Word 1  Differentiating Word 2

Genus  Word
- Differentia
- Genus
Senses & Synonyms of "agitate"
Showing genus and differentiae
Grading of differentiae

NOTE UNLABELLED CONCEPTS

High differentiation

Low differentiation
Unlabelled Concepts

Which is the odd object out, and why?

CircleWhite  SquareGrey  CircleGrey  CircleSmall  Triangle  SquareSmall

Objects

One  Two  Three  Four  Five
Lattice of shapes and Objects

Answer: Object 5. Because it is the only one which is not different (it is undifferentiated). The concept exists even if unlabelled.

Object 5 is the template, prototype, model etc.
Lattice of shapes and Objects

- **Genus**
- **Differentia**

Adapted from Hunt, M. 1982. *The universe within*. Simon and Schuster, New York. Figure 58, p. 300