

# Roget's Thesaurus Conceptual Hierarchy

*Hierarchy*

Class

Roman sub-class (R-Class)

Letter sub-class (L-Class)

**Category**

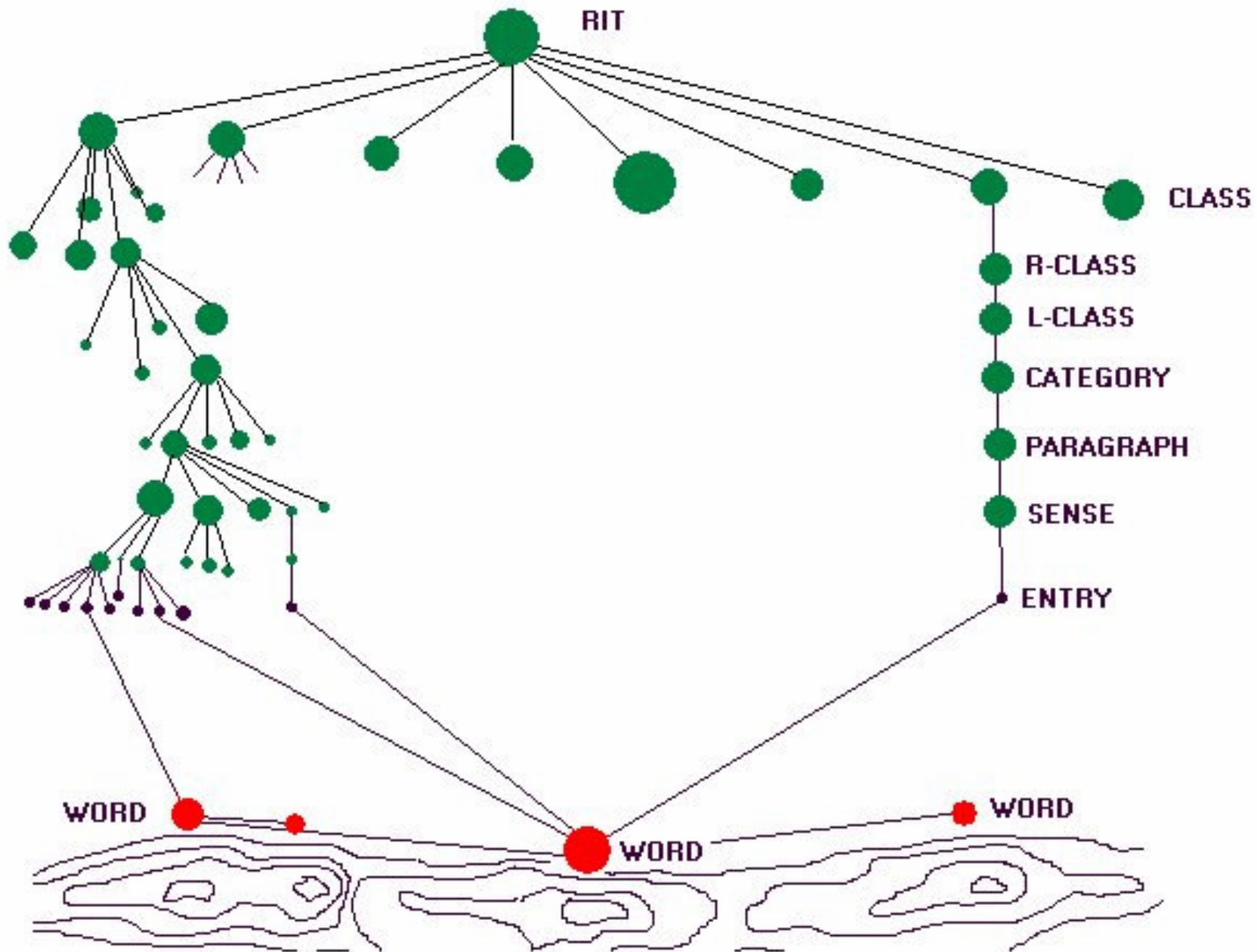
[POS]: Paragraph

Sense: {Entry, entry, entry, ... [Crossref]}

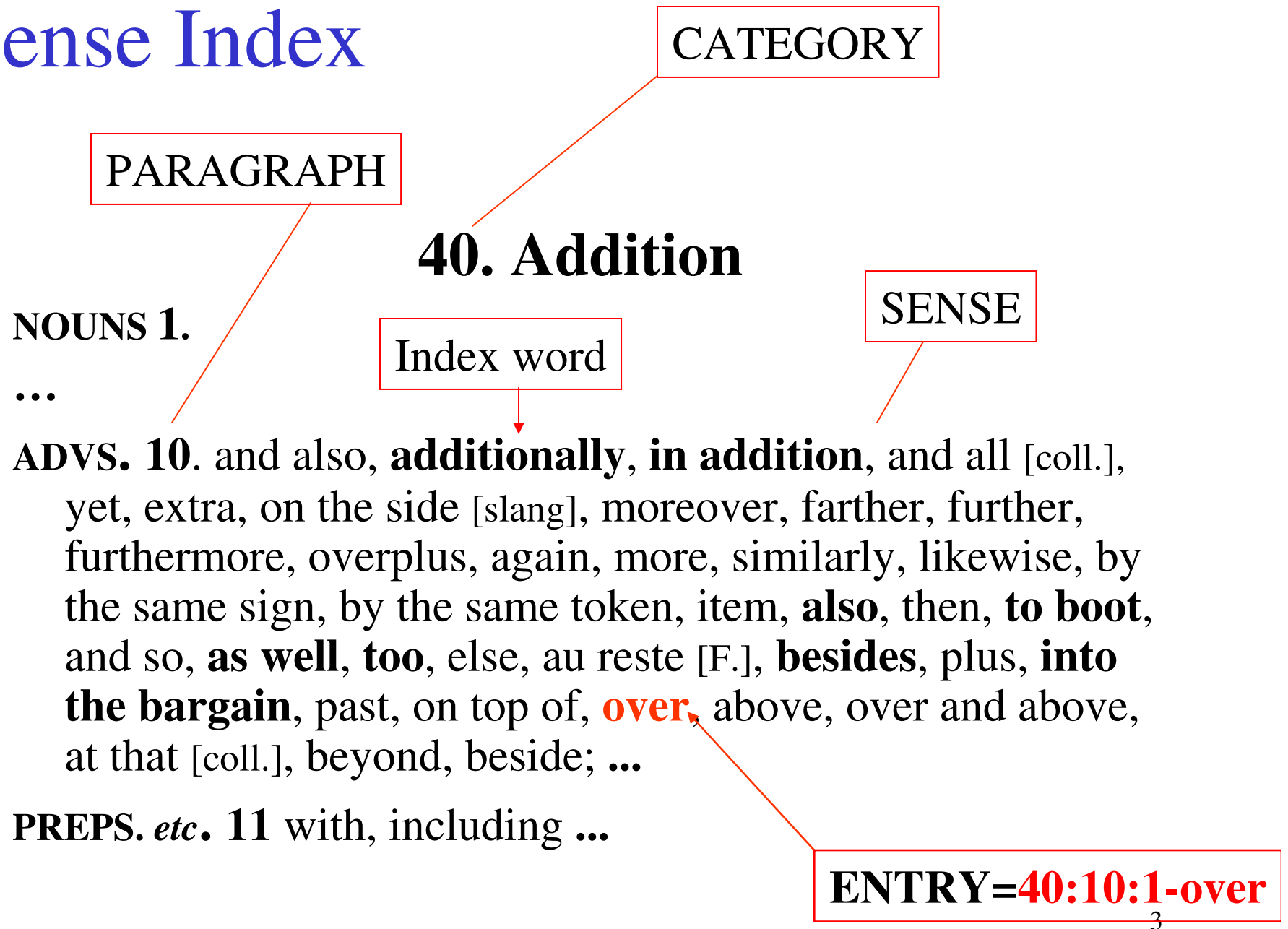
*Sense Index*

*(Word Index)*

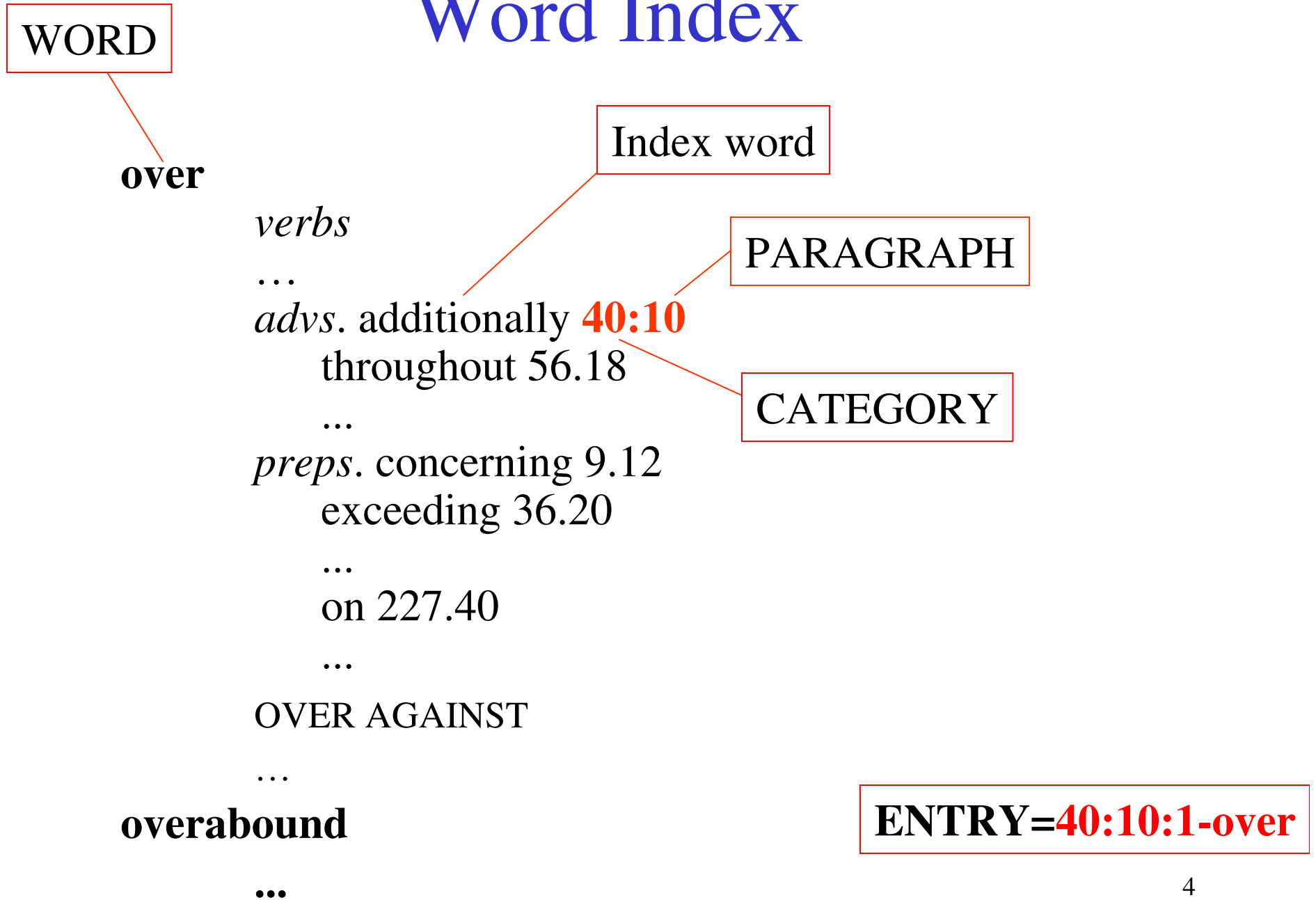
# Under the Hierarchy: words are polysemous



# Sense Index



# Word Index



# Word-Sense Relation

WORDS



Synonymy

SENSES

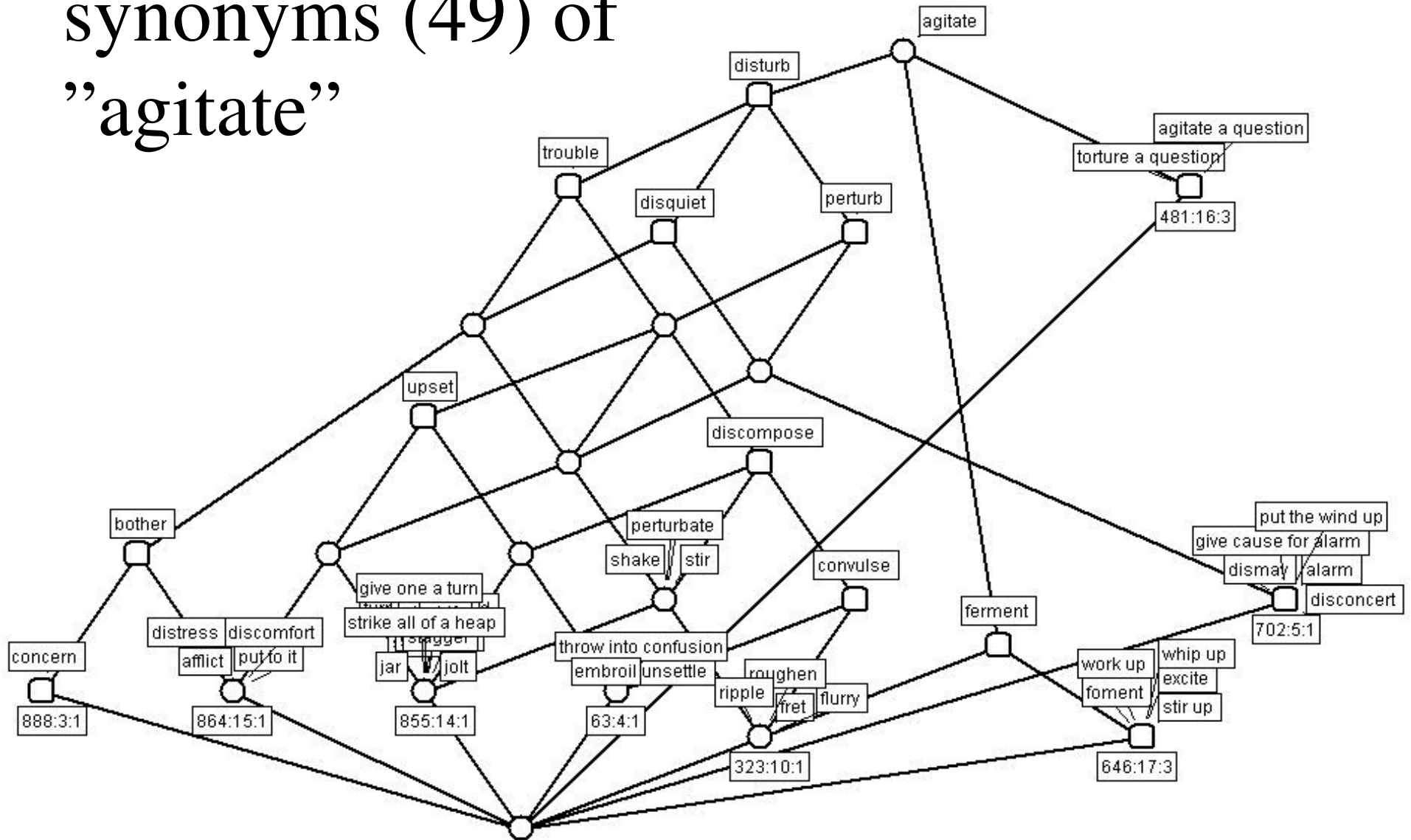


Polysemy

	over	above	beyond	across	past	in excess	additionally	...
9:12:1	x	x						
206:24:	x		x	x	x			
206:27:	x	x	x		x	x		
227:40:	x					x		
40:10:1	<b>x</b>	x	x	x	x	x	x	
...	x	x				x		

**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)

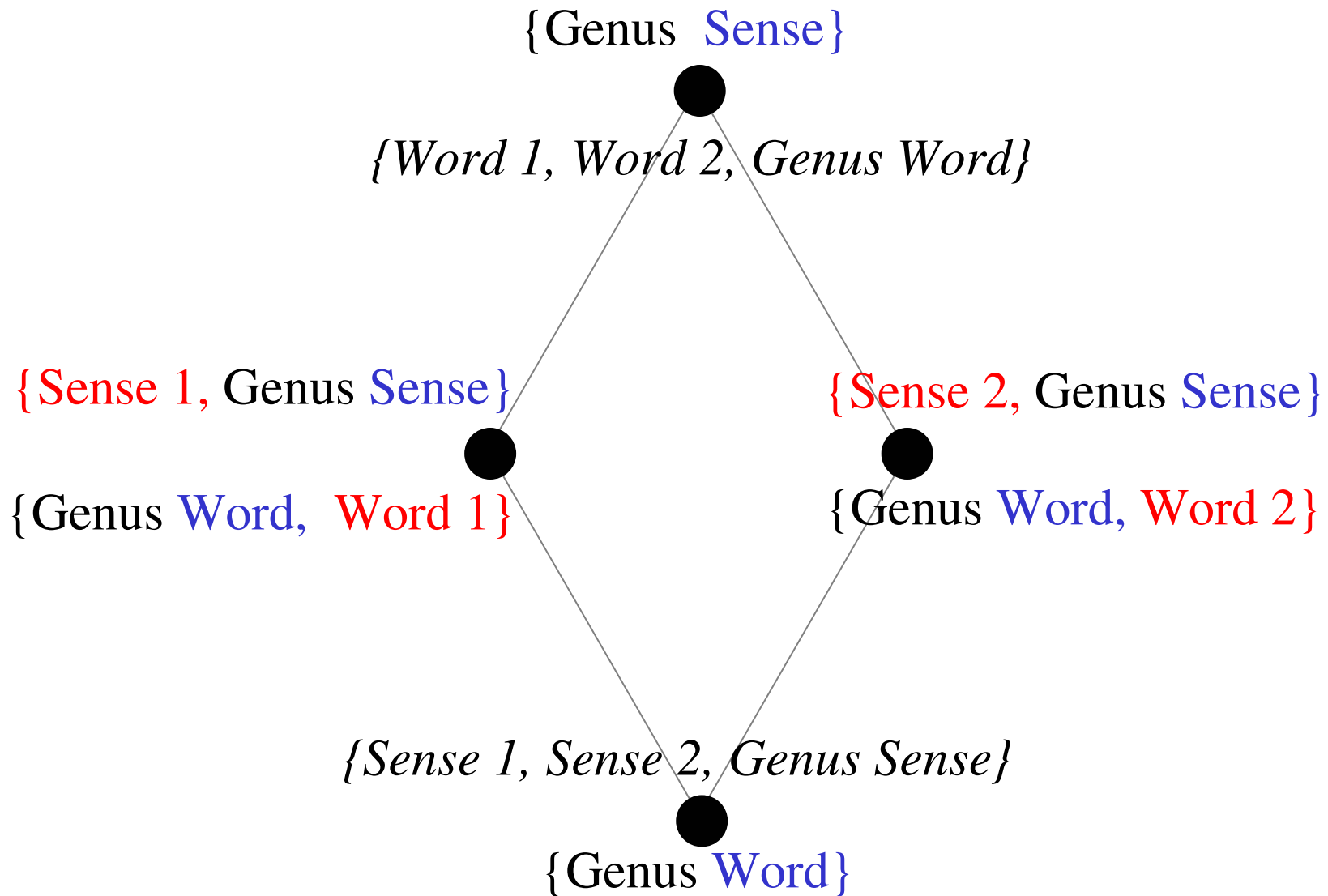
major, upper, superior, **over**, higher, greater, above, better

# Word-Sense Context (FCA)

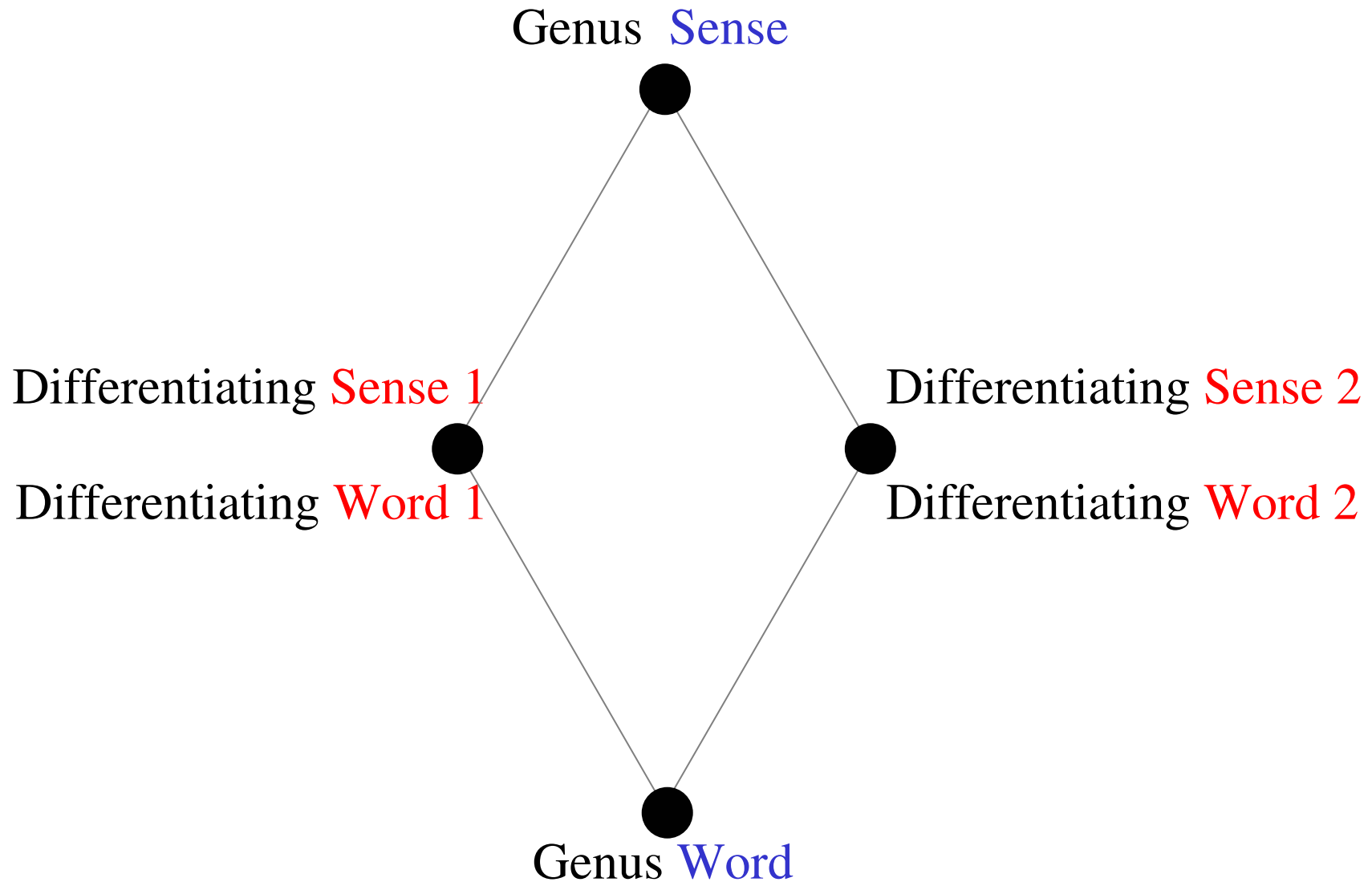
	Genus Sense	Differentiating Sense 2	Differentiating Sense 1
Genus Word	X	X	X
Differentiating Word 1	X		X
Differentiating Word 2	X	X	



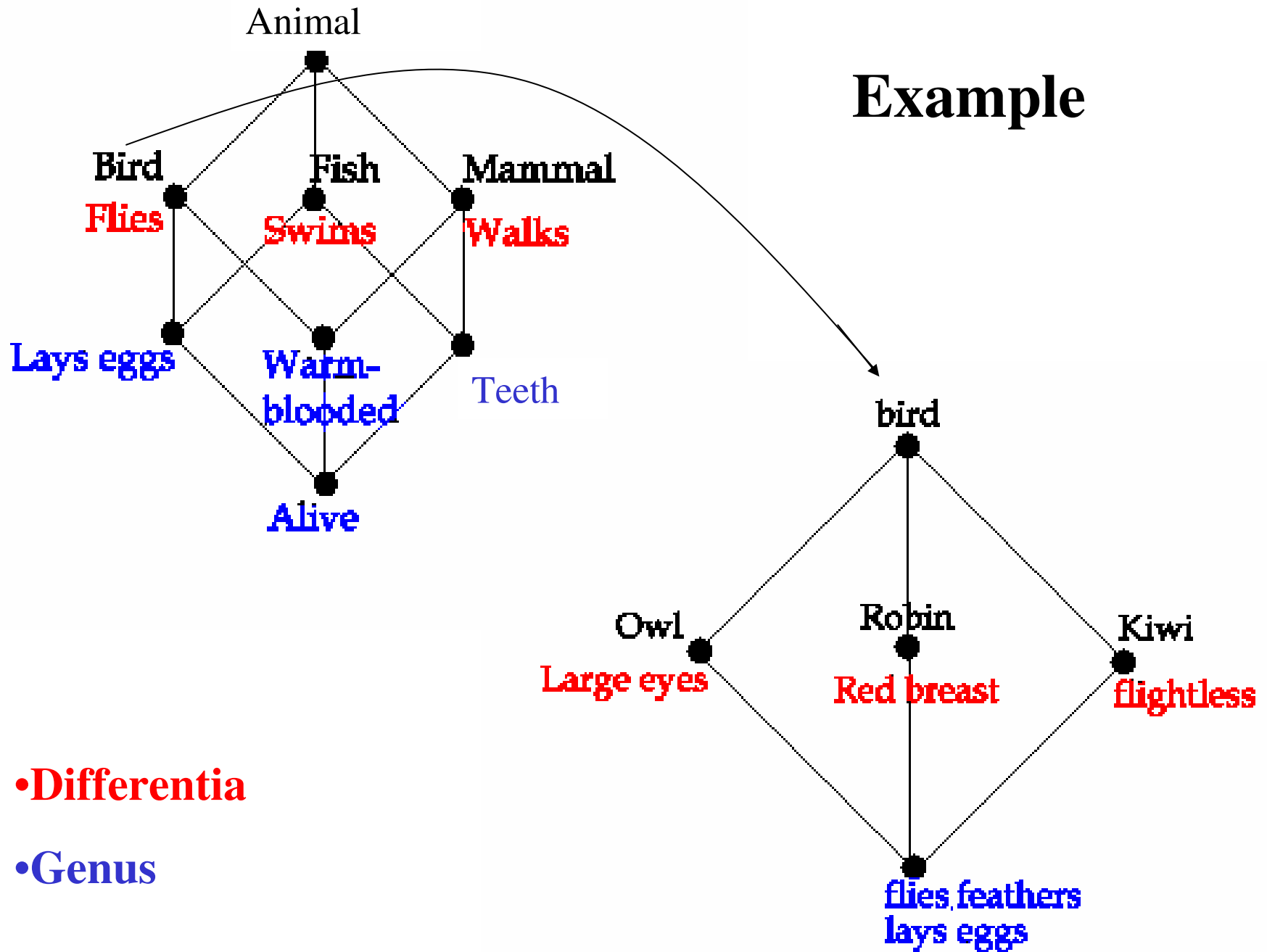
# Lattice of all Objects and Attributes



# Genus and Differentiae Only

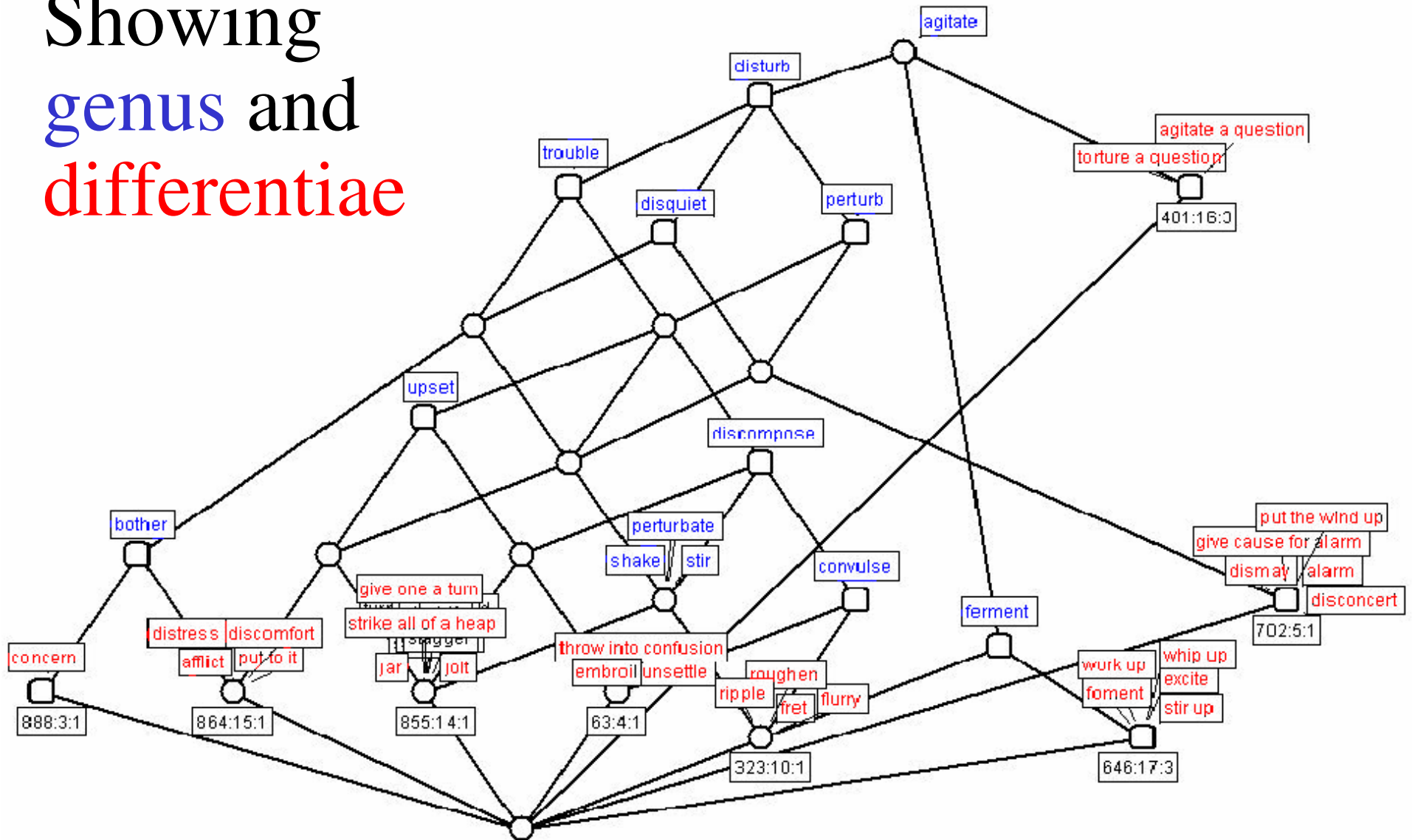


# Example



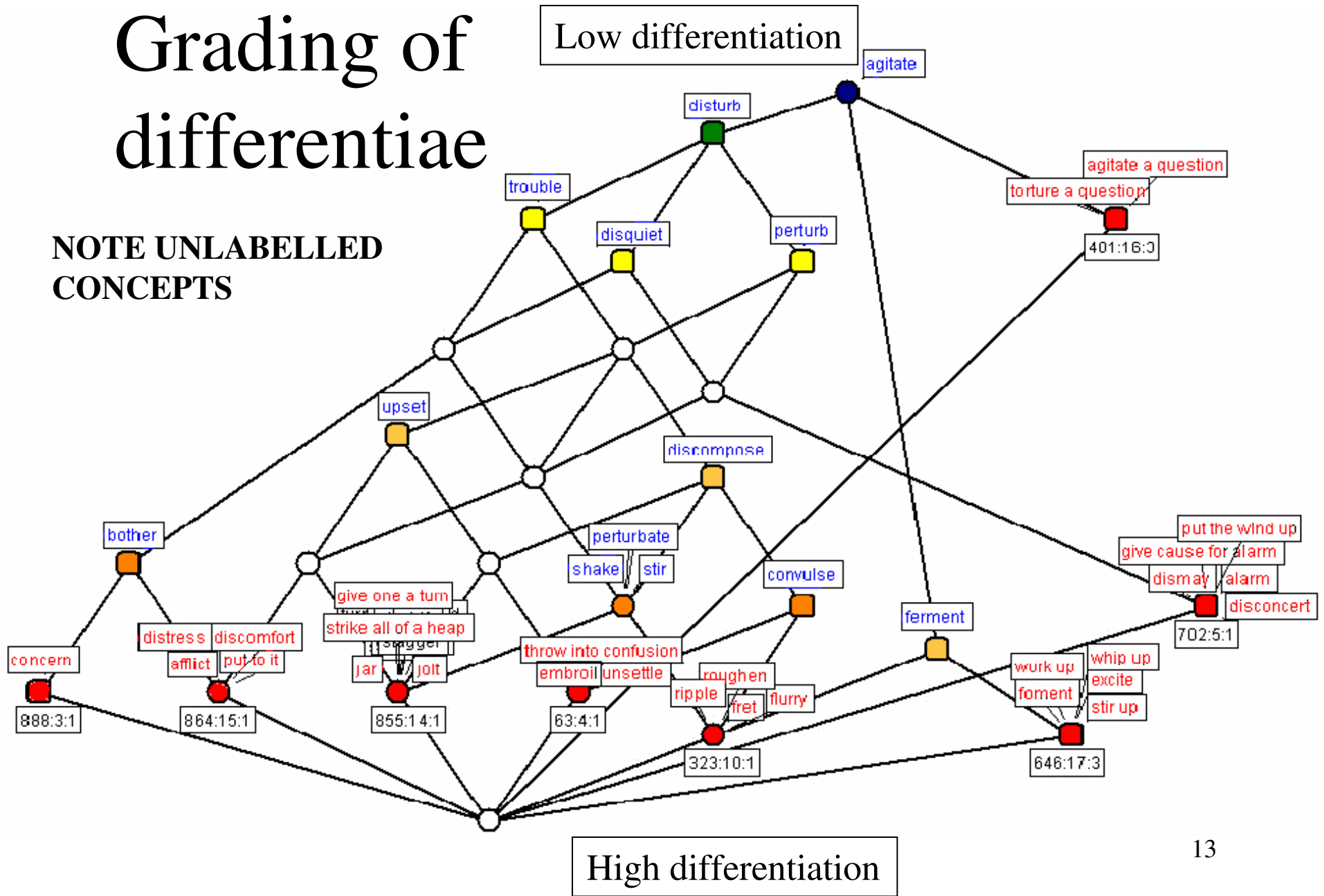
# Senses & Synonyms of "agitate"

Showing  
genus and  
differentiae



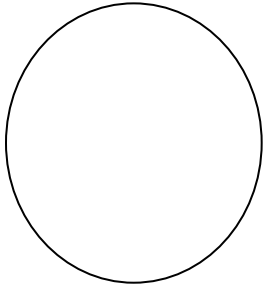
# Grading of differentiae

NOTE UNLABELLED CONCEPTS

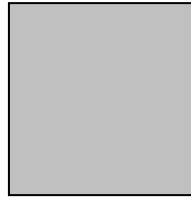


# Unlabelled Concepts

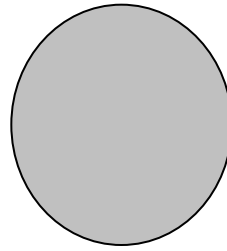
Attributes



**CircleWhite**



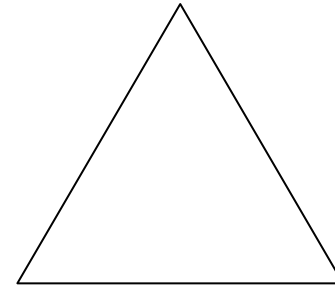
**SquareGrey**



**CircleGrey**



**CircleSmall**



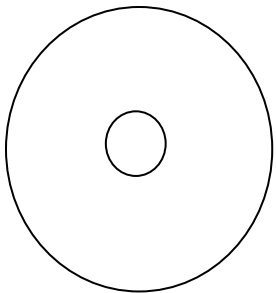
**Triangle**



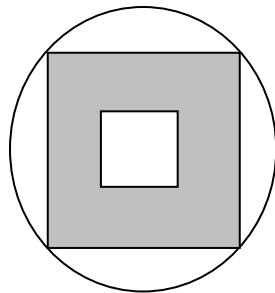
**SquareSmall**

**Which is the odd object out, and why?**

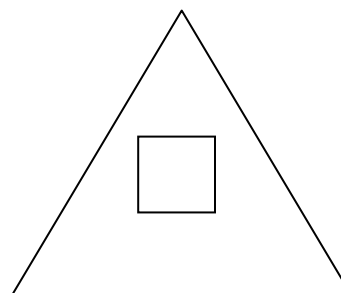
Objects



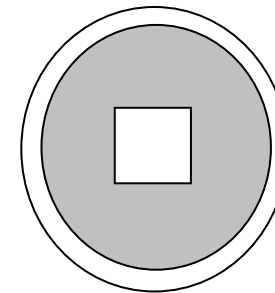
**One**



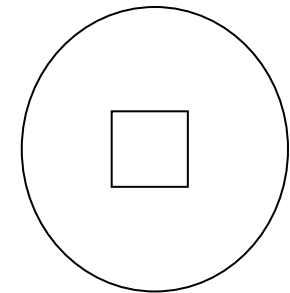
**Two**



**Three**



**Four**



**Five**

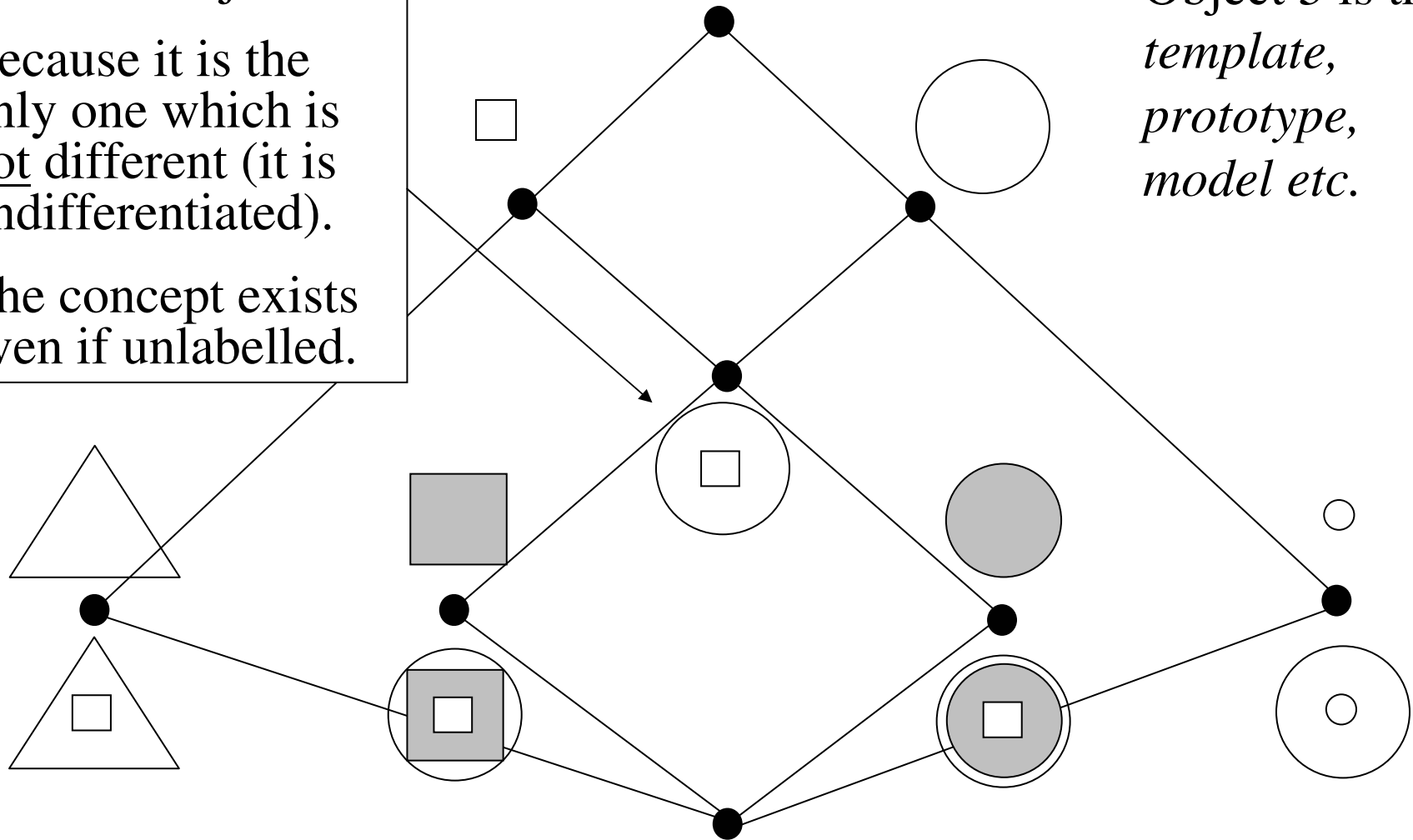
# Lattice of shapes and Objects

Answer: Object 5.

Because it is the only one which is not different (it is undifferentiated).

The concept exists even if unlabelled.

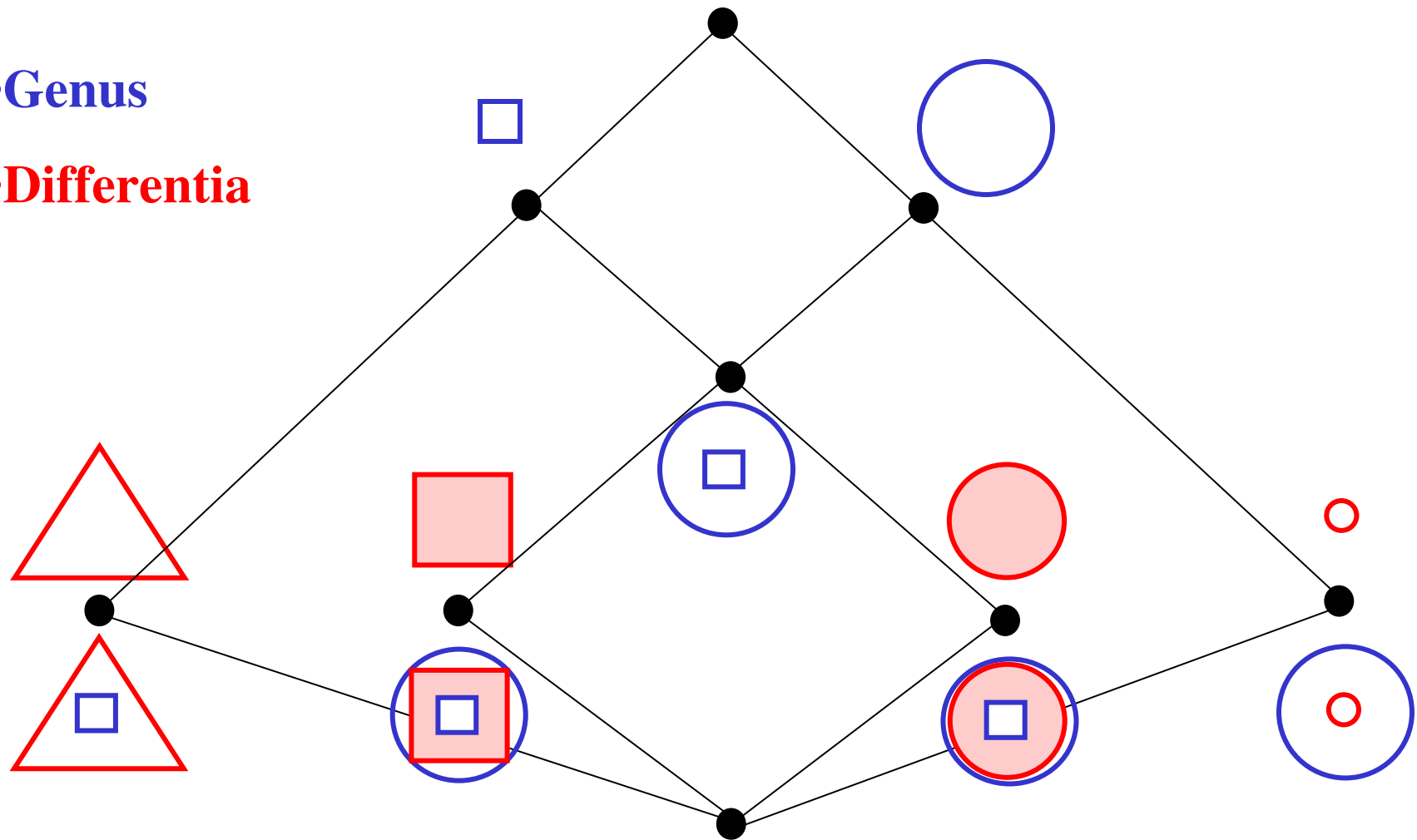
Object 5 is the *template*, *prototype*, *model etc.*



# Lattice of shapes and Objects

•Genus

•Differentia



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