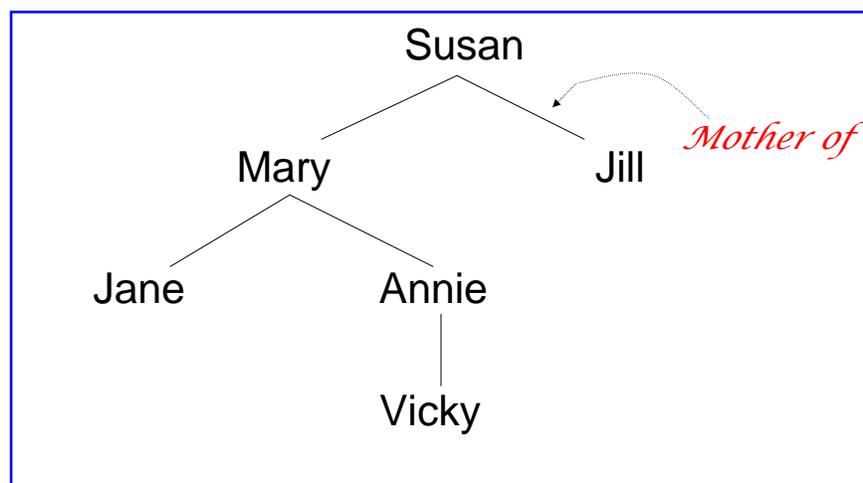


An Animated and Narrated Glossary of
Terms used in Linguistics
presents

Dominance

Example





Intuition

- The above is an example of a tree, in fact, it is a **directed tree**.
- The top-to-bottom visual representation indicates directedness (in this case parenthood).
- Parenthood is **asymmetrical**, because if Mary is the mother of Jane, then Jane is not the mother of Mary.

Slide 3



Dominance

- We can describe the mother as dominating the daughters, which in turn **dominate** the granddaughters.
- Alternatively, we can say that the granddaughter is subordinate of the daughter, which is in turn **subordinate** of the mother.

Slide 4



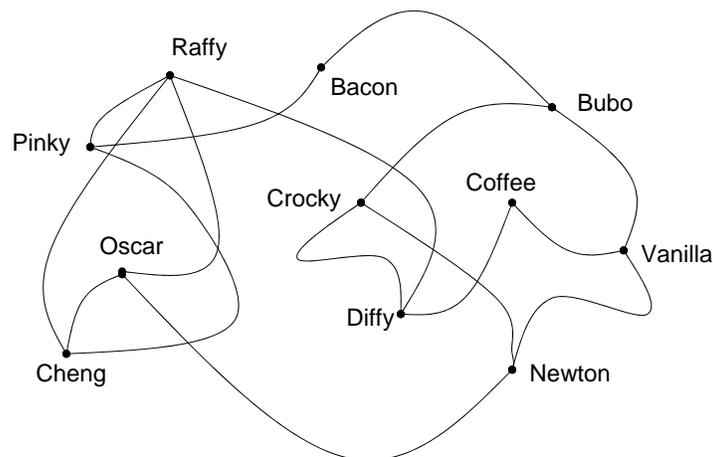
Symmetrical relations

- Unlike parenthood, friendship is a relationship that is symmetrical. If Pinky is a friend of Raffy, then Raffy is a friend of Pinky.
- A diagram expressing friendship would not have the property of directedness.

Slide 5



Network of friendships



Slide 6



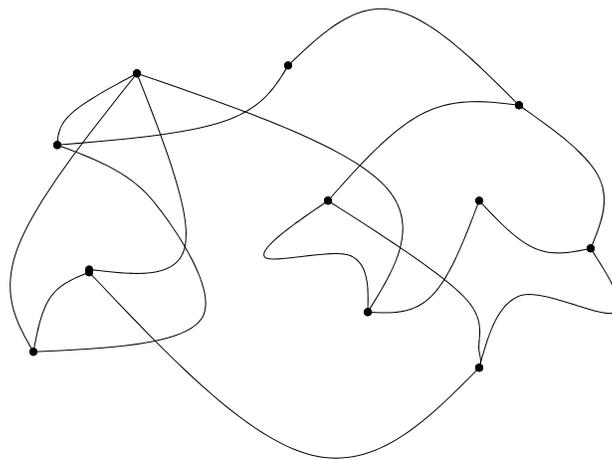
Network of relationships

- With the above intuition in mind, let's take a slightly more abstract approach.
- How can one express a network of relationships?
- We can use nodes and arcs (branches) to connect them.

Slide 7



Network of relationships



Slide 8



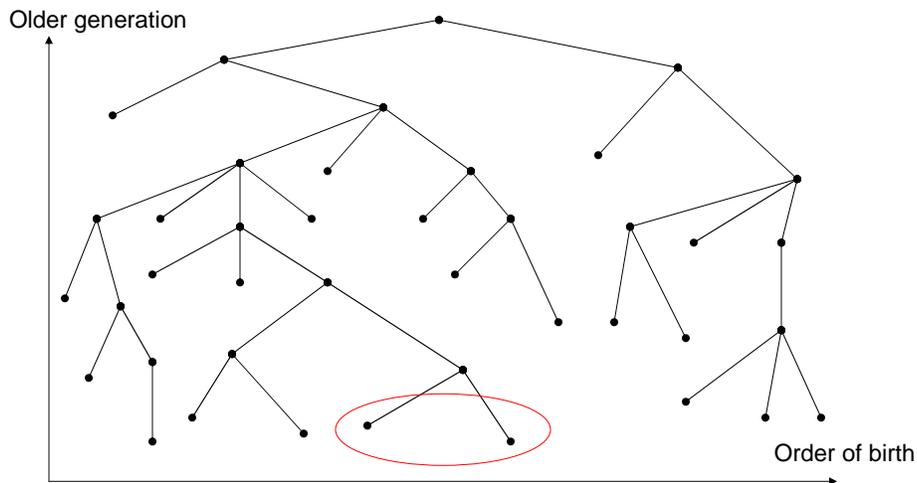
Network of relationships

- If you think of a family, then it should be clear that the network we just saw would be inappropriate.
- Familial networks are highly organized in terms of:
 - Generation
 - Seniority

Slide 9



Family relationship



Slide 10



Directedness

- The picture we drew earlier encodes asymmetrical relationships (such as parenthood or older sibling of ...).
- Such representations have the property of **directedness**.
- When two nodes are connected by a line which indicates an **asymmetrical relationship**, then there is directedness.

Slide 11



Asymmetrical relationship

- If an entity (represented as a node) A is related to entity B by a relationship R, but B does not relate to A by the same relationship R, then the relationship is **asymmetrical**.
- Such relationships include: boss-hood, taller than, heavier than, older than, parenthood, ...

Slide 12



Transitivity

- Dominance is transitive.
- If A dominates B, and B dominates C, then A also dominates C (through B).
- E.g.
If Abel is the boss of Beth, and Beth is the boss of Celine, then Abel is also the boss of Celine.

Slide 13



Expressing directedness

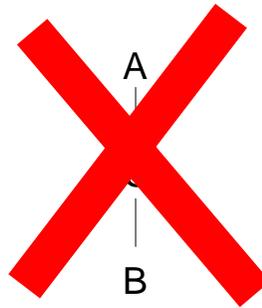
- One of the ways used to express asymmetrical relationships (i.e. **directedness**) in the kind of nodes and arcs representations, we appeal to notions such as **dominance**.

Slide 14



Immediate dominance

- If A dominates B and if there is no node C which is dominated by A that also dominates B, then A immediately dominates B.



Slide 15



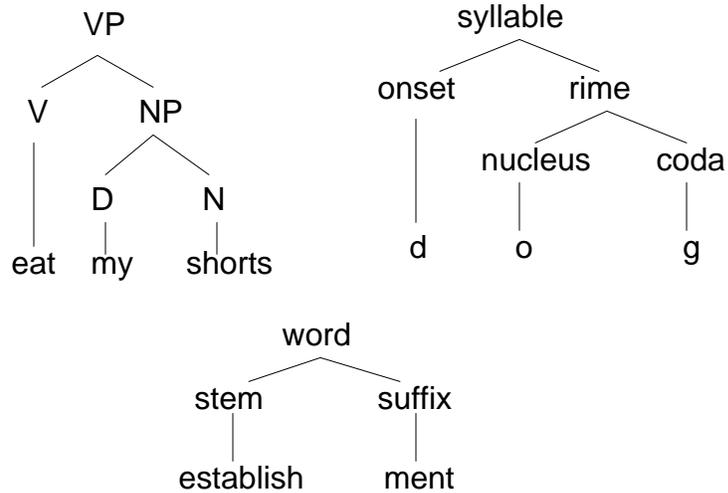
Dominance in Linguistics

- Dominance is widely used in linguistic representations.
- Here are some that might be familiar to you:

Slide 16



Dominance in Linguistics



Slide 17



The End

Wee, Lian Hee and Winnie H.Y. Cheung (2009)
An animated and narrated glossary of terms used in Linguistics.
Hong Kong Baptist University.