Lexical configurations

Hierarchies

and

## proportional series

Lexical configurations

- often referred to as **lexical fields**, or **word fields**; field theorists tend to view whole configurations as **linguistic entities**; for us, however, lexical configurations are merely **by-products of particular sense relations**

- the most formally complex types are **hierarchies** and **proportional series**

- specific types of hierarchy are treated in detail in Lexical Semantics by D. A. Cruse, *chapter 6: Taxonomies*, *chapter 7: Meronomies* and *chapter 8: Non-branching hierarchies*

- other possible configurations, which will not be discussed, are doublets, exemplified by pairs of opposites in Lexical Semantics by D. A. Cruse, *chapters 9, 10 and 11: Opposites*, and clusters, which are groupings of lexical items characterised by a lack of structure, treated in Lexical Semantics by D. A. Cruse, *chapter 12: Synonyms*

Hierarchies

- a hierarchy, which need not consist of lexical items, is a set of elements related to one another in a characteristic way
- **branching hierarchies** are hierarchies which branch or hierarchies which in particular manifestations happen not to have branches; branching can be regarded as a canonical feature of a taxonomic hierarchy
- **non-branching hierarchies** are not capable of branching because of the nature of their constructive relations

- **BRANCHING**
- **NON-BRANCHING**
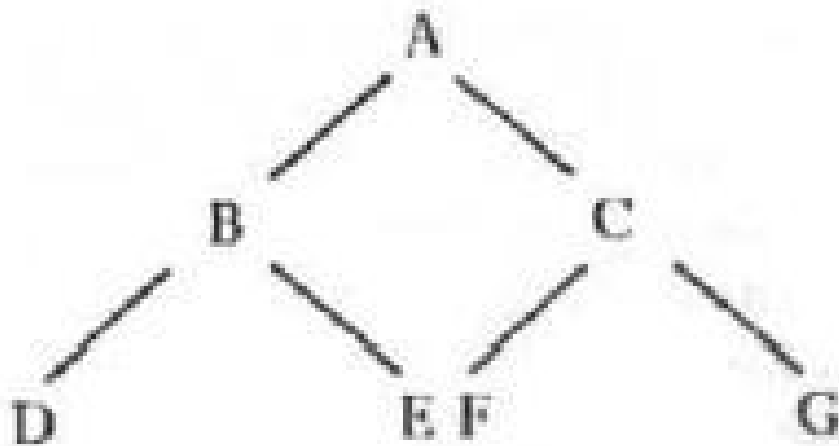
Sub-classification of hierarchies

- hierarchies are further sub-classified by **relations** which structure them
- **relation of dominance** is the **vertical relation**, it is the most fundamental structural relation of any hierarchy; in a well formed hierarchy, the relation of dominance is constant throughout the structure
- **relation of difference** is the **horizontal relation** required by a branching hierarchy, it too must be constant throughout a well-formed hierarchy

Relation of dominance

- the minimum requirement for a hierarchy is a set of interrelated elements structured by a suitable relation acting as a relation of dominance, two properties are essential
- **asymmetric relation** must have a directional character (is longer than)
- **symmetric relation** holds simultaneously in both directions (is similar to)
- **catenary relation** is the second indispensable property, it is the capacity to form indefinitely long chains of elements, in principle at least (father of)
- **non-catenary** relation does not have the capacity to form indefinitely long chains (husband of)
- **transitive relation** is if the fact that the relation holds between elements A and B, and also between B and a third element C, guarantees that it holds between A and C (is longer than)
- **intransitive relation** is if the fact that the relation holds between elements A and B, and between B and C, entails that it does not hold between A and C (father of)
- **origin** is the unique initial element in a hierarchy

Branching hierarchies

- requires a relation of dominance which is differentiable but not all relations of dominance are differentiable

- **differentiable relation** must be capable of being directed along mutually exclusive pathways in an indefinite number of successive stages (taxonomic and meronomic hierarchy)

Levels

- each element of a hierarchy occurs at a particular level, the unique first element constitutes level 1, in a non-branching hierarchy, there is only one element at each level
- **notion of level** in hierarchy can be construed in two different ways
- **technical conception** of a hierarchical level, one needs to count the number of nodes downwards from the origin to determine to which technical level an element belongs, in this sense of level, all hierarchies have determinate levels
- **conflict with the level assignation** according to technical criteria may happen, the users of a hierarchy have positive intuitions concerning which items belong together at a given level, it has a certain psychological validity
- **substantive levels** are where the definite intuitions about which elements belong at a given level, inevitable conflict with technically determined levels
- in an ideal hierarchy, technical and substantive levels would be **congruent**; however, in cases of conflict between two, **primacy** should be given to substantive levels
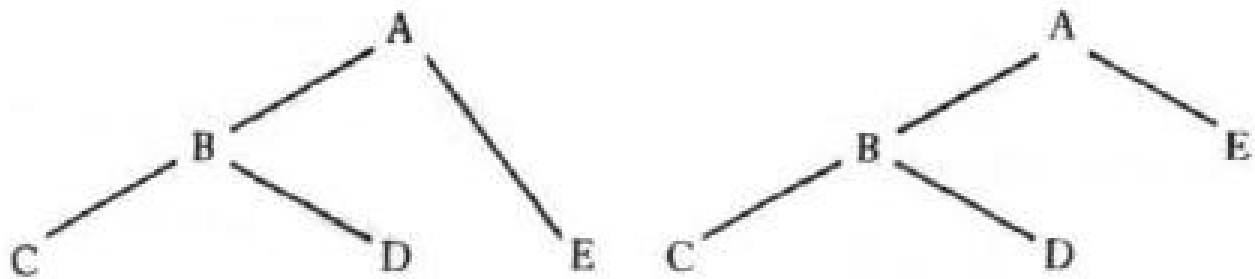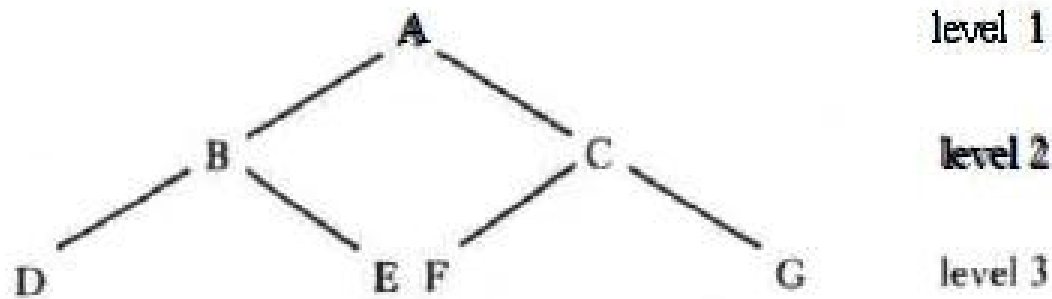
Proportional series

- the simplest proportional series consist of a single **cell** which has four elements, the relations between the elements must be such that from any three of the elements the fourth can be **uniquely determined**, the configuration is thus structured by **relations of proportionality**

- the quintessential proportionalities are numerical, but lexical analogues of these are common, placing the lexical items in a proportional series is justified by **recurrences of semantic contrast**

- all structuring relations must be **one-to-one**, each relation must be such that for any element there is just one other element to which it can stand in that relation, and only the first element can stand in that relation to the second

```
A ——————— B          2 ——————— 3
|           |          |           |
C ——————— D          4 ——————— 6
```

$$\frac{mare}{ewe}(\text{It's a}\,—) = \frac{stallion}{ram}(\text{It's a}\,—)$$

mare   stallion

ewe   ram

$$\frac{mare}{stallion}(\text{It's a}\,—) = \frac{ewe}{ram}(\text{It's a}\,—)$$

```
apple ——————— fruit
|       ✕       |
dog ——————— animal
```

$$\frac{apple}{dog}(\text{It's a(n)}\,—) \neq \frac{fruit}{animal}(\text{It's a(n)}\,—)$$

$$\frac{apple}{fruit}(\text{It's a(n)}\,—) \neq \frac{dog}{animal}(\text{It's a(n)}\,—)$$

Extension of series

- to constitute a **minimum cell** of a proportional series, two recurrent one-to-one relations are necessary
- any basic cell is in principle extendible along one or both its axes
- **open series** is a proportional series which can be extended along both axes simultaneously
- **closed series** is a proportional series which can only be extended along one axis at a time; if an attempt is made to extend them along both axes simultaneously, **unfillable structure points** are created

mare ——— stallion

ewe ——— ram

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mare ——— stallion ——— foal

ewe ——— ram ——— lamb

cow ——— bull ——— calf

---

mare ——— filly

stallion ——— colt

---

mare ——— filly

stallion ——— colt

cat ——— kitten

dog ——— puppy

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mare ——— filly ——— ewe ——— cow

stallion ——— colt ——— ram ——— bull

Ambiguity

- **ambiguity** is the ability to occupy more than one point in a proportional series, a given lexical form may appear at more than one structure point, but only if it is ambiguous

- **diagnostic test for ambiguity** is more reliable than the mere possession of two different opposites

- **evidence for ambiguity** is stronger if the separate occurrence of a lexical form in a proportional series is established in different proportional sets

- the intuitive judgement of the validity of the proportionality is much harder to make when **two senses** associated with a single word form are directly contrasted

Consistency

- a particular axis of a proportional series may be **consistent** or **inconsistent**

Contrast

- all extended proportional series can be broken down into a **number of linear series of cells**, the vast majority of series involve two kinds of **contrast**

- **relatively restricted contrast** is found in only a limited number of lexical pairs, these contrasts are invariably carried by open set elements

- **freely recurring contrast** may be carried by open set items, but the members of a pair of lexical items manifesting such contrast frequently share the same open set elements, the contrast being signalled by one or more closed set elements

Endonymy

- **endonymy** is a relation based on the notion of semantic encapsulation and involves the incorporation of the meaning of one lexical item in the meaning of another
- **endonym** is the term whose meaning is included in (animal)
- **exonym** is the containing term (horse)
- **special cases** of endonymy are the relationships between superordinate and hyponym and in certain instances between holonym and meronym
- the essential defining characteristic of this relation is the capacity to give rise to **pleonasm**, the **but-test** provides a convenient way of illustrating this
- **problems in deciding** which member of a pair is the endonym and which the exonym, in most cases we can trust our intuitions; if the terms are hyponymously related, then the superordinate is the automatic choice for endonym, being less specific in sense, it is therefore less complex semantically; very often the question can be decided by the relative adequacy of definitions
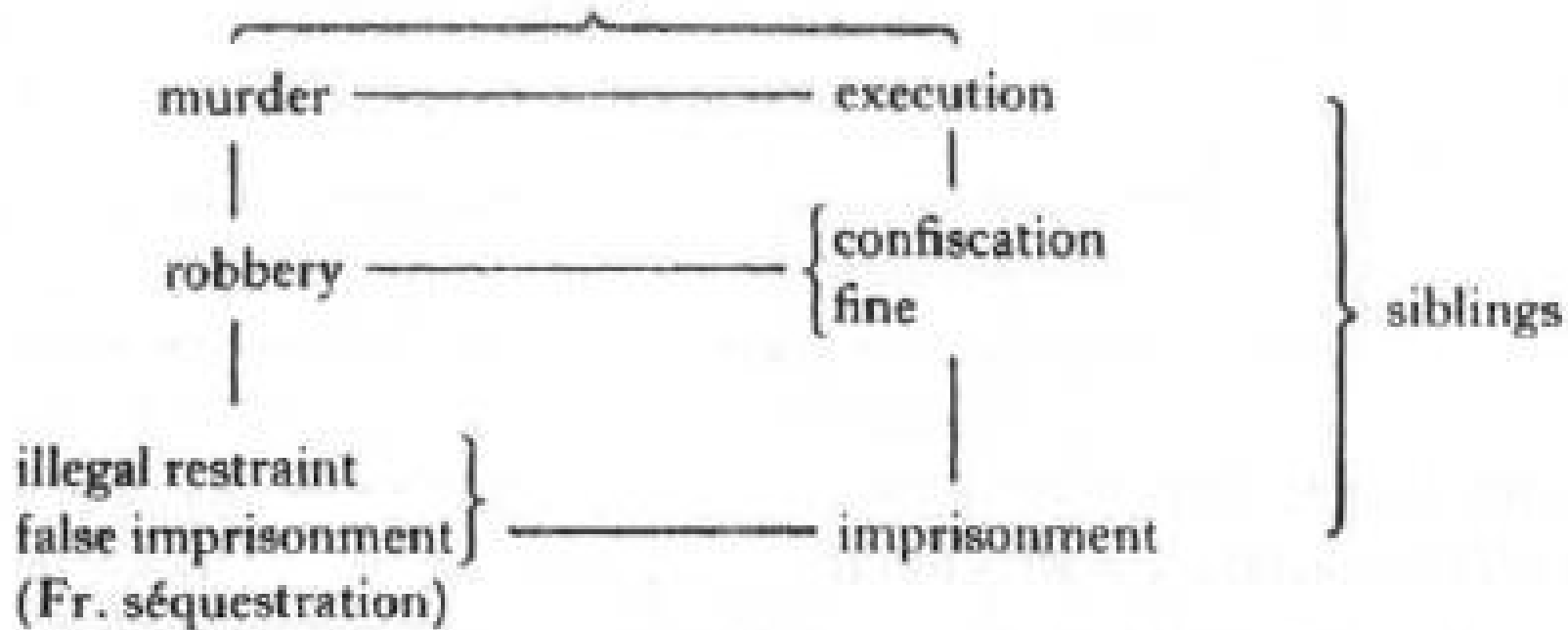
Analogues

- **analogues** are the most interesting cases of endonymy are those where the relation between endonym and exonym is **recurrent**, giving rise to proportional series
- defined as exonyms related in **parallel ways** to different endonyms
- **analogue relationship** is associated with the restricted contrast

Siblings

- **siblings** are intuitively of some significance, but harder to pin down satisfactorily, co-exonyms become more interesting if they are more highly constrained

- related in **parallel ways** to their common endonym

- there is very often no superordinate lexical item for a set of siblings, so the groupings they represent tend to be passed over when taxonomic structures are studies

- sibling relationship is associated with the recurrent contrast

Relations

- a proportional series may consist of parallel strings of endonyms and analogous exonyms or parallel strings of analogues
- **range of imperfect relations** applies to proportional series and their associated lexical relations
- in terms on the primary congruence relations, nothing more can be said about the relationships than that they are compatibles
- of some significance are proportional series based on to some extent proportionality
- displays the **property of latency**, for a **lax proportional series** the requirement that in every cell any item must be uniquely predictable even though the exact recurrence of the semantic contrast is suspect

Sex-contrast

- **sex-contrast** gives rise to a rather tricky problem in the cases where there is **no general term** for the species (lion – lioness)

- problem of the **affix –ess** and in some cases a greater acceptability of the **prefix she–**

- meaning "female" or "female counterpart of"

Quasi-series

- series in which the recurrent contrast involves lexical items belonging to **different semantic categories** are numerous
- most interesting are those in which the relations of quasi-endonymy and paronymy play a part
- a recurrent, overt morphological relationship which parallels the semantic relation of endonymy; the meaning of the verb encapsulates the meaning of the adjective (black – blacken)

Paronymy

- **paronymy** is the relationship between one word and another belonging to a different syntactic category and produced from the first by some process of derivation

- **base** is the derivationally primitive item and **paronym** is the derived form

- semantic complexity parallels derivational complexity and, in a normal case of base and paronym, the base is an endonym of the paronym; this is clear with affixation

- **congruent relationship** illustrates the relationship between base and paronym, more strictly between free base and base-in-paronym, in terms of congruence variants

```
adj.                    v.t.

long ──────────── lengthen
  │                      │
wide ──────────── widen
  │                      │
deep ──────────── deepen
```

```
inflate ──────────── inflator
  │                      │
cook ──────────── cooker
  │                      │
heat ──────────── heater
  │                      │
fertilise ──────────── fertiliser
```

Paronyms

- **false paronyms** are a semantically idiosyncratic derived form, it includes super-paronyms, hypo-paronyms, hetero-paronyms and instances where semantic complexity does not follow morphological complexity

- **hypo-paronym** is a word which encapsulates something more specific than the sense of the verb base (walker is a hypo-paronym of walk)

- **super-paronym** is a word where the meaning associated with the base in its encapsulated form is superordinate to the meaning of the free base (joiner is a super-paronym of joining)

- **hetero-paronym** is the case where there is no obvious semantic relation between base and paronym, the relation between free base and base-in-paronym is incompatible and included as a congruence variant (conductor is a hetero-paronym of conduct)

- **zero-derived paronyms** are those with no affix or other overt sign of category change

- Thank you for your attention!!!