Metaphorical/Metonymic relationships in novel analogical compounds

Dott.ssa Elisa Mattiello
elisa.mattiello@unipi.it

Outline
• Analogical compounds
  • Definition of compound word
  • Definition and Types of analogy
  • Literature on analogical compounds
  • Theoretical Framework, Data selection
• Figurative language in model/target compounds
  • Metaphor and Metonymy
• Target production and interpretation
  • Similarity relationships and Semantic associations

Analogical compounds
Definition of compound word (1)

Criteria for compoundhood in English (Lieber 2005):
• Spelling (two separate words, two words hyphenated, one word): blackbird vs. sky blue;
• Cf. daisy wheel, daisy-wheel, daisywheel;
• Lexicalized meaning: e.g., blackboard, green house
• Cf. compositional whiteboard;
• Stress: blackboard, apple cake;
• Cf. apple pie, icy cold;
• Inseparability: blue-green vs. *blue light green.

Analogical compounds
Definition of compound word (2)

'Loose' vs. 'strict' compounds (Scalise 1992):
• Strict compounds involve phonological amalgamation (e.g. It. quintessenza ‘quintessence’);
• Loose compounds do not allow for phonological amalgamation, but have compositional meaning (e.g. It. spartiacque ‘watershed’).
• Cf. stress in E. loose compounds black market ‘illegal traffic in goods’ and black money ‘money obtained by illegal means’.

Analogical compounds
Definition of analogy (1)

Greek grammarians used the term ἀναλογία (analogía) to denote a real mathematical proportion, i.e. A : B = A : X (X = B).
E.g., baby : baby-sitter = dog : X (X = ?) 
dog-sitter
eye : eye-witness = ear : X (X = ?) 
ear-witness
Neo-grammarians inherited the word in this sense: e.g., Hermann Paul (1880) Analogiebildung ‘analogical formation’.

Analogical compounds
Definition of analogy (2)

Bloomfield (1933) introduced the concept of (paradigmatic) substitution:
E.g., in ear-witness, ear substitutes eye in eye-witness.
The part which is substituted is called Variable Part (vs. Invariable Part) (Mattiello 2016).
Analogical compounds
Definition of analogy (3)
- Cf. Generative grammarians, such as Paul Kiparsky (1974) and Mark Aronoff (1976), who rejected analogy as a word-formation process.
- Generativists (Aronoff and Fudeman 2011) have recently recognised the importance of analogy in inflectional morphology, as a means of extension of a morphological pattern across paradigms (e.g. swim–swam–swum after sing–sang–sung).
- Many English strong verbs have been regularised by analogy with weak forms: e.g. PE help–helped–helped, from the previous irregular paradigm help–holp–holpen.

Analogical compounds
Types of analogy (1)
- Surface analogy (see Motzch’s 1981: 101 Oberflächenanalogie): the word-formation process whereby a new word (called ‘target’) is coined that is clearly modelled on a precise actual word (hence ‘model’ or ‘source’).
- E.g., supper [2013] ← lunch and supper is modelled on brunch [1896] ← breakfast and lunch.

Analogical compounds
Types of analogy (2)
- Analogy via schema (cf. Köpcke’s 1993, 1998 schema model): a schema is a concrete model identifiable as two or more words (series or word family).
  - E.g., hardware [1947] provides the model for software [1960] and both are models for firmware [1968], adware [1983], spyware [1983], malware [1990], vapourware [1993], etc.

Analogical compounds
Types of analogy (3)
- Surface analogy combined with rule: the motivation is here twofold (analogy with a precise lexical item + conformity to rule patterns).
  - E.g., beefcake [1949] ‘(a display of) sturdy masculine physique’ (OED2) modelled on cheesecake [1934] ‘display of the female form in the interest of sex-appeal’.
- Cf. Surface analogy with reanalysis:
  - E.g., duckwich [1943] after sandwich [1762].

Analogical compounds
Literature on analogical compounds (1)
- Psycholinguistic studies and experiments on “Family Size effect”:
  - Family Size effect results from semantic activation spreading from the monomorphemic word to its family members (De Jong et al. 2000).
  - Novel compound words having a high Family Size either in the non-head or in the head component are easier to process than those having a low Family Size (Libben 2006; Krott 2009).

Analogical compounds
Literature on analogical compounds (2)
- E.g. tablecloth

- Table: [table] [cloth]
- Tablespoon, tabletop, tableware, table-tennis
- Washcloth, sailcloth, cheesecloth, dropecloth
- Tablecloth
Analogical compounds

Literature on analogical compounds (3)

- Experiments on “analogy” and “stress assignment”:
  - Constituent families provide an analogical basis for stress assignment in novel English compounds (Plag 2003). For instance, compounds with the head street vs. compounds with the head avenue.

- Experiments on “semantic relations” between components:
  - In noun-noun compounds (NNCs), semantic relations between components can help interpretation (Smith et al. 2014).
  - E.g., the default interpretation for Place-Food NNCs involves physical origin. However, this is only activated with conventional compounds, not with novel compounds.

Some research questions

- What is the role of figurative meaning in the production and interpretation of novel compounds obtained by surface analogy?
- The following research questions can be addressed:
  - Which figures of speech tend to occur in model compounds?
  - Which similarity relationships can be identified between model and target compounds?
  - What is the impact of figuration on:
    a) word-formation (target production),
    b) recognition of the model (model recoverability),
    c) disambiguation of novel compounds (target interpretation)?

Theoretical Framework (1)

- We adopt a Cognitive Linguistics approach to explore the nature of figurative language in models and targets.
- For metaphor, we adopt the Contemporary Theory of Metaphor (CTM) first proposed by Lakoff and Johnson (1980), subsequently developed by Lakoff and colleagues (e.g. Lakoff 1987; Lakoff and Turner 1989; Lakoff and Johnson 1999; Gibbs 1994; Kövecses 2005), and critically discussed by Ruiz de Mendoza Ibáñez and Pérez Hernández (2011).

Data selection

- The data has been selected from online collections of neologisms and paper dictionaries of new words:
  - Neologisms – New Words in Journalistic Text (1997-2012), http://rdues.bcu.ac.uk/neologisms.shtml (819 entries);
  - The Rice University Neologisms Database (2004-2014), http://neologisms.rice.edu/ (9,016 entries);
Figurative language in model/target compounds: Quantitative data

- Neologisms - New Words in Journalistic Text (NEWJT, 1997-2012): 71.42% analogical compounds with figurative meaning.
- Fifty Years among the New Words: A Dictionary of Neologisms, 1941-1991 (FYANW, 1991): 52.17% analogical compounds with figurative meaning.

<table>
<thead>
<tr>
<th>Source</th>
<th>Metaphor</th>
<th>Metonymy</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEWJT</td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td>RUND</td>
<td>53.33%</td>
<td>46.66%</td>
</tr>
<tr>
<td>FYANW</td>
<td>88.66%</td>
<td>11.33%</td>
</tr>
</tbody>
</table>

Figurative language: Metaphor (1)

- Metaphor is described as a “conceptual mapping” (a set of correspondences) from a source (less abstract) domain to a target domain.
  - E.g., PEOPLE ARE ANIMALS in Peter is a fox, or LOVE IS A JOURNEY in We are going nowhere (Lakoff and Johnson 1980; Lakoff 1993).

- Metaphors can be distinguished into one-correspondence (PEOPLE ARE ANIMALS) vs. many-correspondence (LOVE IS A JOURNEY) metaphors (Ruiz de Mendoza 1997).

Figurative language: Metaphor (2)

- One-correspondence (Peter is a fox) vs. many-correspondence (We are going nowhere).

- Primary (high-level) (PURPOSES ARE DESTINATIONS) vs. low-level (LOVE / LIFE / BUSINESS IS A JOURNEY) metaphors (Grady 1997; Ruiz de Mendoza and Pérez 2011).

Figurative language in model/target compounds: Metaphor (1)

- Metaphor of the head
  - bird cafeteria [2011] A small box provided for wild birds to feed themselves.
  - METAPHOR: NOURISHMENT IS CAFETERIA (self-service place for eating)
  - bird-house [1855] A small covered box provided for wild birds to nest in.
  - METAPHOR: NEST IS HOUSE (shelter, protection)

Figurative language in model/target compounds: Metaphor (2)

- Metaphor of the modifier
  - daughterboard [1971] A printed circuit board on which are mounted some of the subsidiary components of a microcomputer, and which may be connected to a motherboard.
  - METAPHOR: SUBSIDIARY IS DAUGHTER (subordination, dependence, non-compulsoriness)
  - motherboard [1965] A printed circuit board on which the principal components of a microcomputer are mounted.
  - METAPHOR: PRINCIPAL IS MOTHER (importance, independence, compulsoriness)

Figurative language in model/target compounds: Metaphor (3)

- Metaphor of both head and modifier
  - beefcake [1949] (A display of) sturdy masculine physique.
  - METAPHOR: MASCULINE PHYSIQUE IS CAKE (appeal, attraction, deliciousness) MADE OF BEEF (masculinity, virility, strength)
  - cheesecake [1934] Display of the female form, esp. in photographs, advertisements, etc., in the interest of sex-appeal.
  - METAPHOR: FEMALE PHYSIQUE IS CAKE (appeal, attraction, deliciousness) MADE OF CHEESE (delicacy, softness, smoothness)
Exercise: Identify the models of the following analogical compounds and say whether or not they are metaphorical.

1) babymoon 'romantic vacation during a pregnancy'
   honeymoon
2) first-minute (offer) ‘occurring at the earliest possible time’
   last minute
3) brown-out ‘a partial black-out’
   black-out
4) househusband ‘male partner who carries out the household role’
   housewife

5) knee-mail ‘a prayer, especially one said while kneeling’
   e-mail
6) girlcott ‘of a woman or group of women: to boycott’
   boycott (< Captain Charles C. Boycott)
7) copyleft ‘the practice of using copyright law to offer the right to distribute copies and modified versions of a work’
   copyright (word play)
8) kid-friendly ‘welcoming towards or suitable for kids’
   child-friendly, user-friendly

Exercise: Identify the models of the following analogical compounds and say whether or not they are metaphorical.

9) white mail ‘to apply moral pressure to (a person) for a good cause’
   blackmail
10) mouse race ‘lower-stress life-style’
    rat race ‘urban working life regarded as a struggle for wealth, status’
11) big gun ‘an important or powerful person’
    great gun
12) Pink Friday ‘the Friday after Thanksgiving, on which participating major retailers cut prices’
    Black Friday

Figurative language: Metonymy (1)

- Metonymy involves a ‘stand for’ relationship between a source and a target domain. That is, we refer to an entity by means of another entity.
  - E.g., ORDER STANDS FOR CUSTOMER in The ham sandwich is waiting for his check or
  - PLACE STANDS FOR INSTITUTION in Wall Street is in crisis (Lakoff and Johnson 1980; Lakoff and Turner 1989).

Figurative language in model/target compounds: Metonymy (1)

- Metonymy of the head
  - wethead [2008] Someone who is perpetually drunk, who takes alcoholics.
### Figurative language in model/target compounds: Metonymy (2)

- **Metonymy of the modifier**
  - *air rage* [1996] Extreme anger or frustration felt during a flight.
  - **METONYMY: PLACE FOR ACTION** (air for ‘flying on an aircraft’)
  - *road rage* [1988] Violent anger attributed to the stress and frustration of driving a motor vehicle.
  - **METONYMY: PLACE FOR ACTION** (road for ‘driving a motor vehicle’)

### Figurative language in model/target compounds: Metaphor and Metonymy (1)

- **Metonymy of the head and Metaphor of the modifier**
  - *blue-collar* [1929] Of or relating to manual work.
  - **METONYMY: CLOTHING FOR PERSON**
  - *white-collar* [1911] Of or relating to non-manual work.
  - **METONYMY: CLOTHING FOR PERSON** (collar for ‘shirt’ for ‘worker’)
  - **METAPHOR: COLOUR IS TYPE OF WORK** (blue is manual work)

### Exercise: Identify the models of the following analogical compounds and say whether or not they are metonymic.

1. **motormouth** 'a person who talks fast and incessantly’
   - big mouth ‘a talkative, indiscreet, or boastful person’
2. **airhead** 'a foolish, unintelligent, or frivolous person’
   - fat-head ‘a stupid dolt’
3. **crackhead** 'a person who is addicted to crack cocaine’
   - acid head
4. **babe magnet** 'a man who is attractive to women’
   - chick magnet

### Exercise: Identify the models of the following analogical compounds and say whether or not they are metonymic.

5. **crappymeal** 'word of condolence expressing shared distress at an unfortunate occurrence or circumstance’
   - Happy Meal
6. **dick-flick** 'movie that favours a male audience’
   - chick-flick
7. **Failbook** 'derogatory expression for Facebook’
   - Facebook

### Target production and interpretation

**Similarity relationships and Semantic associations (1)**

- Analogical compounds can be described in terms of Variable and Invariable Parts (VP vs. IP).
- E.g., *babe* (VP) *magnet* (IP) < *chick* (VP) *magnet* (IP)
- The Variable Parts in model and target compounds are generally semantically related via similarity relationships of:
  - Near identity (synonymy):
    - E.g., *poopface* [2010] ‘someone who is unkind or unpleasant’ after *shifface* [1923] ‘a despicable or hated person’ (*poop* is slang for ‘faeces’)

### Exercise: Identify the models of the following analogical compounds and say whether or not they are metonymic.

1. **motormouth** 'a person who talks fast and incessantly’
   - big mouth ‘a talkative, indiscreet, or boastful person’
2. **airhead** 'a foolish, unintelligent, or frivolous person’
   - fat-head ‘a stupid dolt’
3. **crackhead** 'a person who is addicted to crack cocaine’
   - acid head
4. **babe magnet** 'a man who is attractive to women’
   - chick magnet

### Exercise: Identify the models of the following analogical compounds and say whether or not they are metonymic.

5. **crappymeal** 'word of condolence expressing shared distress at an unfortunate occurrence or circumstance’
   - Happy Meal
6. **dick-flick** 'movie that favours a male audience’
   - chick-flick
7. **Failbook** 'derogatory expression for Facebook’
   - Facebook

### Target production and interpretation

**Similarity relationships and Semantic associations (1)**

- Analogical compounds can be described in terms of Variable and Invariable Parts (VP vs. IP).
- E.g., *babe* (VP) *magnet* (IP) < *chick* (VP) *magnet* (IP)
- The Variable Parts in model and target compounds are generally semantically related via similarity relationships of:
  - Near identity (synonymy):
    - E.g., *poopface* [2010] ‘someone who is unkind or unpleasant’ after *shifface* [1923] ‘a despicable or hated person’ (*poop* is slang for ‘faeces’)

### Exercise: Identify the models of the following analogical compounds and say whether or not they are metonymic.

1. **motormouth** 'a person who talks fast and incessantly’
   - big mouth ‘a talkative, indiscreet, or boastful person’
2. **airhead** 'a foolish, unintelligent, or frivolous person’
   - fat-head ‘a stupid dolt’
3. **crackhead** 'a person who is addicted to crack cocaine’
   - acid head
4. **babe magnet** 'a man who is attractive to women’
   - chick magnet

### Exercise: Identify the models of the following analogical compounds and say whether or not they are metonymic.

5. **crappymeal** 'word of condolence expressing shared distress at an unfortunate occurrence or circumstance’
   - Happy Meal
6. **dick-flick** 'movie that favours a male audience’
   - chick-flick
7. **Failbook** 'derogatory expression for Facebook’
   - Facebook
Contradictory opposition (antonymy):
- E.g., hot war [1948] ‘an armed conflict’ after cold war [1945] ‘hostilities short of armed conflict’;

Other contrasts (co-hyponymy):
- E.g. grey market [1934] ‘legal but unethical traffic’ after black market [1727] ‘illegal traffic’;

Both Variable and Invariable Parts in model and target compounds can share the same/related semantic and conceptual associations involving:

Metaphor: e.g., white market [1943] ‘authorized dealing in things that are rationed’ after black market [1727] ‘illegal traffic’;
- white → purity, clarity, cleanness, integrity: WHITE IS LEGAL
- black → dirtiness, filthiness, grubbiness: BLACK IS ILLEGAL

Metonymy: e.g., brown-out [1942] ‘a partial black-out’ after black-out [1934] ‘the failure of an electricity supply; the resulting darkness’.
- brown → COLOUR FOR STATE (brown for ‘semi-darkness’)
- black → COLOUR FOR STATE (black for ‘darkness’)

- Fever → agitation, heat: FEVER IS STRONG SEXUAL ATTRACTION
- Jungle → PART FOR WHOLE COUNTRY (jungle for ‘Africa(n origin)’)
- Yellow → SKIN COLOUR FOR PERSON’S ORIGIN (yellow for ‘Asian origin’)

- hell → suffering, discomfort, wickedness, misery: HELL IS BAD (ECONOMIC) SITUATION
- job
Conclusions (1)

Initial questions:
- What is the impact of figuralization on: a) word-formation (target production), b) recognition of the model (model recoverability), c) disambiguation of novel compounds (target interpretation)?

As for target production, a quantitative analysis of some neologisms collections has shown the relevance of figuralization to analogical word-formation (esp. compounding).

In particular, more than half (51.61%) analogical compounds involve figurative language, either metaphor (59.99%) or metonymy (39.99%), or both.

Conclusions (2)

As for model recoverability and target interpretation, a qualitative analysis has shown that:
- The semantic associations and cognitive operations behind figurative meaning in both model and target compound words are similar and generally involve:
  - metaphorical language (i.e. conceptual mappings between two domains): e.g., CAGES-ATTRACTION PEOPLE,
  - TUBERS-IDLE PEOPLE, FEVER-SEXUAL ATTRACTION,
  - metonymic language (i.e. conceptual mappings within single (sub)domains with cognitive operations of reduction, expansion, highlighting): e.g., BODY PART-PERSON, PLACE-ACTION, SKIN COLOUR-ORIGIN.

Conclusions (3)

Therefore, in order to disambiguate the meaning of a novel analogical compound, we should:
- First, recover the model compound and investigate if/analyse how figurative language works in the meaning construction of its components (head, non-head);
- Second, identify similarities in semantic associations and cognitive operations which may have originated the target compound.
- In general, the higher the similarity between model and target compounds, the easier the recoverability of the former (model) and the interpretation of the latter (target).

References


References


