Theme session: *Issues in Metonymy*

WHAT KIND OF REASONING MODE IS METONYMY?

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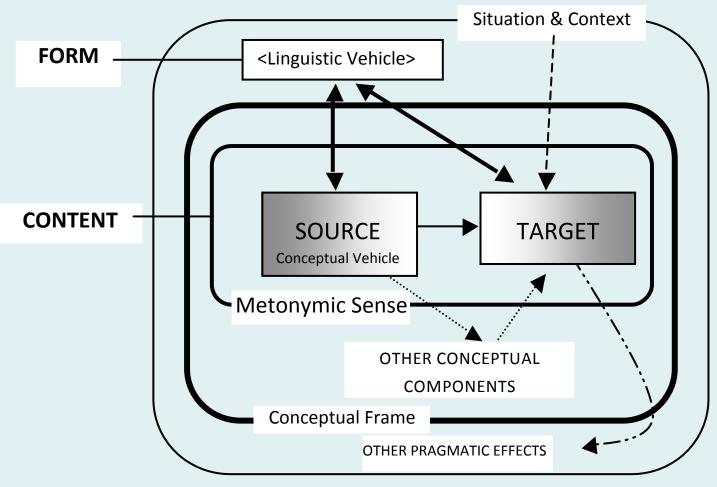




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- 1. The basic metonymic relation (Figure 1)
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Figure 1. The basic metonymic relation



- **←** symbolic relation
- indexical relation
- other possibly activated indexical links
- situational and contextual triggers of target meaning
- —·· → implicature

SHADING: degree of shading ~ degree of prominence

2. Deduction, induction, abduction

Deduction (syllogism)

[Pople 1973: 147, Levinson 2000: 43]

Table 1. Deductive reasoning

Inference mode	Structure of argument Defeasik		
Deductive	$\forall x (P(x) \supset Q(x))$ P(a)	major premise <i>or</i> general law minor premise	no
	Q(a)	conclusion	

∀: universal quantifier a: individual constant

P, **Q**: predicate letters ⊃: (material) implication

 \mathbf{x} : individual variable (bound by \forall)

Problem: Deduction is not defeasible; metonymy is in principle defeasible (see e.g. Panther & Thornburg 2007)

Entailment (non-defeasible)

- Entailment: deductive, not defeasible
- Thesis: entailments cannot be the basis of metonymies since metonymies are contingent, i.e. in principle defeasible)

For example:

John devoured the steak

entails 'John ate the steak'

There is no metonymy DEVOURING FOR EATING

Induction

[Pople 1973: 147, Levinson 2000: 43]

Table 2. Inductive reasoning

Inference mode	Structur	Defeasibility	
Inductive	P(a) Q(a)	observed fact observed fact	yes
	[]	other observed facts	
	$\forall x (P(x) \supset Q(x))$	induced generalization	

∀: universal quantifier

P, **Q**: predicate letters

 \mathbf{x} : individual variable (bound by \forall)

a: individual constant

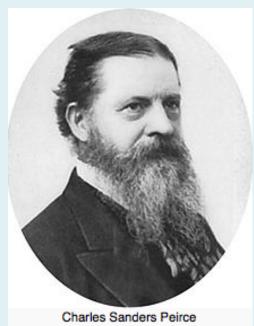
⊃: (material) implication

Induction: problems

- KLEENEX FOR PAPER TISSUE or ASPIRIN FOR PAIN KILLER could be regarded as instances of inductive reasoning (ELEMENT FOR ANY OTHER ELEMENT OF A SET).
- However, many other standard exx. of metonymy are not based on inductive reasoning: EFFECT FOR CAUSE, POTENTIALITY FOR ACTUALITY, PRODUCER FOR PRODUCT, etc.

Abduction

Coined by C. S. Peirce (1839–1914)



Peirce believed that
 "abductive suggestion comes
 to us like a flash. It is an act of insight although
 of extremely fallible insight."
 (Peirce, in Buchler 1955: 151)

Abductive instinct

 The premises and the inference are not consciously formulated (either verbally or mentally); the link between them is "an associative connection rather than reasoning." (Paavola 2005: 147)

Abduction

[Pople 1973: 147, Levinson 2000: 43]

Table 3. Abductive reasoning

Inference mode	Structure of argument		Defeasibility
Abductive	$\forall x (P(x) \supset (Q(x))$ Q(a)	known generalization <i>or</i> law observed fact	yes
	P(a)	hypothesized explanation	

∀: universal quantifier

P, Q: predicate letters

 \mathbf{x} : individual variable (bound by \forall)

a: individual constant

⊃: (material) implication

Abduction as reasoning from evidence to explanation

- "Inference to the Best Explanation" (Douven 2011) or "thinking from evidence to explanation, a type of reasoning characteristic of many different situations with incomplete information" (Aliseda 2005: 28)
- Abductive inferencing: pervasive in both scientific and common sense reasoning (Thagard 2007: 227)

Metonymy as abductive reasoning

- Hobbs (2006) claims that the interpretation of pragmatic meanings (implicatures, metonymies) is based on abductive reasoning.
- If so, is metonymy reducible to implicature, or vice versa?

Metonymy as abductive reasoning?

Schema

Premise 1

CONCEPT_T is associated with CONCEPT_S

Premise 2

CONCEPT_s is coded in utterance

Inferred meaning

CONCEPT

Metonymy as abductive reasoning?

Premise 1

'Tennis championships taking place in Wimbledon' (EVENT) is associated with 'Wimbledon' (LOCATION)

Premise 2

'Wimbledon' (LOCATION) is coded in utterance ['wimbəldən] (linguistic vehicle)

Inferred meaning

'Tennis championships taking place in Wimbledon' (EVENT)

3. Contingency, defeasibility, reinforceability

Conversational Implicature 1

[Grice 1989, Levinson 2000]

Generalized Conversational Implicature (GCI)

Default inference, i.e. preferred/normal interpretation, e.g.:

We found that **most** countries used ad hoc prioritysetting and planning methods, with little to no underlying systematic risk analysis. (COCA 2012)

Default inference: 'We found that not all countries [...]'

Conversational Implicature 2

[Grice 1989, Levinson 2000]

Generalized Conversational Implicature (GCI) vs. Particularized Conversational Implicature (PCI)

GCI: default inference, i.e. preferred normal interpretation

PCI: inference arising in particular contexts

Conversational Implicature: GCI vs. PCI

Example 1 (Levinson 2000: 16)

A: What time is it? [CONTEXT]

B: Some guests are already leaving.

GCI: Not all the guests are already leaving.

PCI: It must be late.

Conversational Implicature: GCI vs. PCI

Example 2 (Levinson 2000: 16)

A: Where is John? [CONTEXT]

B: Some guests are already leaving.

GCI: Not all the guests are already leaving.

PCI: Perhaps John has already left.

Properties of Conversational Implicatures 1 (Grice 1989)

- 1. Cancellable/defeasible: The inference can be defeated by adding premises/additional assumptions.
- Nondetachable: Same coded content = same implicatures (except those that are based on the Maxim of Manner).
- 3. Calculable: The structure of the inference is transparent, reconstructable.
- 4. Not coded: GCIs are not coded (whereas conventional implicatures are).

Properties of Conversational Implicatures 2 (Levinson 2000)

5. Reinforceable: What is implicated can be added to what is said without causing too much redundancy (in contrast to real tautologies).

Defeasible vs. Reinforceable Implicature

Defeasibility

And I think, in fact I know, Governor Wilson yesterday said that California shares some responsibility for the crime committed against the lady in Florida for releasing him in the first place. (COCA 1997, CNN_Talkback)

Reinforceability

I think but I don't know for sure that metonymy is a kind of implicature.

Are metonymies implicatures?

Four parameters to check

- Metonymic sense
- Contingency
- Defeasibility
- Reinforceability

Contingency vs. defeasibility

(see e.g. Panther 2006, Panther & Thornburg 2007)

Contingency: metonymies are based on world knowledge, not on conceptual necessity; therefore, they are, in principle, defeasible.

However: linguistic context/situation may coerce a non-defeasible metonymic reading.

Paul Auster is on the second floor

Metonymic sense	Contingency	Defeasibility	Reinforceability
+	+	+	+
Paul Auster's	Empirical (not	Auster	Paul Auster is
novels	conceptually necessary) fact: Paul Auster writes novels		on the second floor — in fact / I mean, all of his novels are there.

She is the mother of two daughters

Metonymic	Contingency	Defeasibility	Reinforceability
sense/			
I-implicature			
+	+	+	+
Metonymic	Empirical (not	She is not a	She is the
model (Lakoff	conceptually	housewife	mother of two
1987) vs. I-	necessary) fact:	mother	daughters – i.e.
Heuristic	In some		a typical
(Levinson 2000):	societies /	9	housewife
'housewife	cultures /social	BAS	mother.
mother'	classes, mothers		
	are typically		
	housewives.	93	
			27

Paul Auster began a new book

Metonymic sense	Contingence	Defeasibility	Reinforceability
+	+		+
ACTIVITY: writing	Empirical (not	THING: a new	Paul Auster
a new book	conceptually	book	began a new
	necessary) fact: Paul Auster writes novels	BOOK	book-I mean, he started writing one.

Paul Auster began a new book

Note

- ➤ The metonymic sense 'write a new book' is defeasible; because Auster might 'read a new book', 'bind a new book', 'catalogue a new book' although 'put the new book on a shelf' is probably not a possible metonymic sense.
- The schematic metonymic sense is 'do something that is typically done with a new book'
- ➤ This schematic sense allows for some indeterminacy: prototypical, peripheral, unlikely events involving a new book

Hollywood made millions with *The Titanic*

Metonymic sense	Contingency	Defeasibility	Reinforceability
+	+		+
the American	Empirical (not	Hollywood	Hollywood
movie industry	conceptually	Mark Street, and Market	made millions
located in	necessary)	HOLLYWOOD	with <i>The</i>
Hollywood	fact: The		Titanic – I
	American	Multipation Cy 1st Street Block 2 st. Street Block 2 st. Street Block 2 st.	mean, the
Metro Goldwyn Mayer	movie industry		American
TRADE	is located in		movie industry
	Hollywood		did.

The kettle is boiling

Metonymic sense	Contingency	Defeasibility	Reinforcability
+	+	+	+
'the liquid in the kettle' CONTAINER → CONTENT	Empirical (not conceptually necessary) fact: A kettle does not necessarily contain liquid	'kettle' CONTAINER	The kettle is boiling – of course, I mean the water in the kettle.
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The kettle is boiling

Note

Stainless steel:

- melting point: 1510° C
- boiling point: 3000° C

The interpretation that the kettle itself is boiling is unlikely but it is not impossible!

4. Conclusions

What (some) metonymies have in common with implicatures

- Defeasibility: This is not surprising given that the relation between source and target is contingent.
- Reinforceability: the possibility to make the target meaning explicit

When (some) metonymies do not behave like implicatures

Metonymic coercion

Occurs typically when semantic selection restrictions are violated; e.g. incompatibility between verb and NP meaning or between construction and lexical meaning.

Such cases instantiate non-defeasibility but they nevertheless exhibit the relation of contingency between source and target.

Metonymically coerced target meanings

- Genuine metonymic coercion typically occurs when semantic selection restrictions are violated:
- Ontological clash: enjoy the wine 'enjoy drinking the wine'; direct object must be EVENT
- Aspectual clash between construction meaning (ACTION) and lexical meaning (STATE): How to Own a Piece of Ontario Cottage Country for \$199,000

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References 1

Aliseda, Atocha. 2006. *Abductive Reasoning: Logical Investigations into Discovery and Explanation* (Synthese Library: Studies in Epistemology, Logic, Methodology, and Philosophy of Science 30). Dordrecht: Springer.

Douven, Igor. 2011. Abduction. *The Stanford Encyclopedia of Philosophy (Spring 2011 Edition)*, Edward N. Zalta, ed. http://plato.stanford.edu/archives/spr2011/entries/abduction.

Hobbs, Jerry R. 2006. Abduction in natural language understanding. In: Horn, Laurence R. & Gregory Ward, eds. *The Handbook of Pragmatics*, 724–741. Oxford: Blackwell.

Levinson, Stephen S. *Presumptive Meanings: The Theory of Generalized Conversational Implicature*. Cambridge, MA: MIT Press.

Paavola, Samie. 2005. Abduction: Instinct or inference? *Semiotica* 153: 131–154.

References 2

Panther, Klaus-Uwe. 2006. Metonymy as a usage event. In: Kristiansen, Gitte, Michel Achard, René Dirven, & Francisco J. Ruiz de Mendoza Ibáñez, eds. *Cognitive Linguistics: Current Applications and Future Perspectives* (Applications in Cognitive Linguistics 1). Berlin and New York: Mouton de Gruyter, 147–185.

Panther, Klaus-Uwe & Linda L. Thornburg. 2007. Metonymy. In: Geeraerts, Dirk and Hubert Cuyckens, eds. *The Oxford Handbook of Cognitive Linguistics*. Oxford: Oxford University Press, 236–263.