

# **NEFLT Study Materials**

# Compiled by Dr. Christoph Haase, Ph.D.

# Text linguistics, pragmatics, stylistics





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# UNIT 1

## **1. Linguistic knowledge and the production of texts 1.1 Types of knowledge**

2 types of knowledge:	a) rules of the <u>code</u>
	b) rules of the <u>conventions</u>

- language allows novel manifestations of code but within non-novel message conventions code is systematic, are conventions systematic?

#### →depending on text type, stylistic analysis is limited

## **1.2 Elements of textual communication**

- a) sender of message: "grammatical" person, individual
- b) receiver of message: individual or generic
- c) text has social environment

#### **1.3 Preliminaries of an analysis of texts**

 $\rightarrow$  interpretation of any text: involves recognition of 2 sets of relations:

a) <u>extra-textual relations</u> between the language items and the code from which they deriveb) <u>intra-textual relations</u>: relations between language items within the context itself

# 2. The relevance of genre 2.1 Genre definitions

cf. esp. Swales, Halliday/Hasan: genre is a key feature of a text Hoey 2002: not a great gult between narrative/non-narrative text, but works best with nonliterary text

#### **Genre: 2 main schools**

- a) Swales on academic genres
- discourse community has <u>ownership of the genre</u>
- writer chooses linguistic "moves" to signal ownership

b) systemic-functional linguistics (Halliday, Hasan, Ventola)writers compose texts that are "normal" in their culture

Pike: two perspectives on genre analysis

a) particleperspective on language	(what is the object made of?)
b) <u>field</u> perspective	(what role in ling./non-ling context does it play?)

#### 2.2 The "social constructionist" view of discourse

"writing is always a personal and socio-cultural act of identity whereby writers both signal their membership in a range of communities, as well as express their own creative presence" (Hyland, 2006)

### 3. Example discussion

# Mitochondrial substitution rates are extraordinarily elevated and variable in a genus of flowering plants

Phylogenetic relationships within **Plantaginaceae** were determined from a 4,730-nt data set consisting of portions of four chloroplast regions (ndhF, rbcL, and **intergenicspacersatpBrbcL**and trnLtrnF). Relationships within Plantago subgenus Plantago were analyzed from a **9,845-nt data set** containing two additional chloroplast regions (intergenicspacerspsaAtrnS and trnCtrnD). **Maximum likelihood** (**ML**) **trees** were constructed with PAUP\* by using the general time-reversible model, a gamma distribution with four rate categories, and an estimate of the proportion of invariant sites. The rate matrix, base frequencies, shape of the **gamma distribution**, and proportion of invariant sites were estimated before the MLanalysis from a neighbor-joining tree constructed from the data. Divergence times outside Plantaginaceae were taken from ref. 27. Those within the family were calculated by using a penalized likelihood approach (28) as implemented in the R8S program (29) and a time constraint of 48 million years (27) for the Antirrhinum Plantago split. The ML tree was used as the starting tree for the divergence time analysis. The starting tree was constructed by first constraining the taxa in the 4,730-nt data set to incorporate the alternative relationships within subgenus Plantago and then estimating branch lengths for this topology in PAUP\*. A smoothing factor of three was determined by using the R8S cross-validation procedure.

#### 4. The Discourse situation



contract: A and B both share the knowledge that:

#### A knows that B does not know everything that A knows (about X)

- A uses conventionalised strategies to express him/herself comprehensibly relies on shared cognitive endowment with B (instruments of bodily perception)
- B expects lexicalization that coincides with B's knowledge by transformation of
   a) specific knowledge (target domain) to
   b) generic knowledge (source domains)

#### 5. Defining texts: a first attempt

**text**: evidence of a self-contained, purposeful interaction between one/more writers and one/more readers in which the writer(s) control the interaction

#### whole interaction = discourse

but:

 $\rightarrow$  view of writer control is faulty

## 1. [continue on discourse] Interaction of writer and reader

Textual meaning = meaning<u>communicated by a writer</u> and <u>interpreted by a reader</u>  $\rightarrow$ requires study of circumstances = study of contextual meaning contextual meaning: how more is communicated than what is said

#### **1.1 Roles in the interaction process**

- writers desire to meet audiences needs (reader can stop reading at any time)

- readers have lack of knowledge,

have questions they want answered,

#### 1.2 Subtypes of interaction (example with original spelling)

We first heated up the water and measured the tempeeture. We poured in the tomatoe soup and put the soap and put a lid on one of them and waited for a boute seven minnits and then took the tempreture and the one with the highest recording was the lid one. So the shop was right. (adapted from Hoey 2001)

- issues:

#### 2. Textual interaction and expectation

#### 2.1 Issues of structure (example sentence 1)

The basic opposition, in grammars of the second half of the twentieth century, is not that between 'structuralist' and 'generative' as set out in the public debates of the 1960's.

(from Halliday, MAK (1994). Introduction to Functional Grammar.London: Arnold)

#### **2.1.1 Inferences for elements to follow:**

a) expectation 1: a reason why this is not the basic opposition

b) expectation 2: a statement of what the basic opposition is

c) expectation 3: a characterisation of the opposition between 'structuralist' and 'generative' grammars

#### **2.2Issues of structure (example sentence 2)**

There are many variables in the ways grammars are written, and any clustering of these is bound to distort the picture; but the more fundamental opposition is between those that are primarily syntagmatic in orientation (by and large the formal grammars, with their roots in logic and philosophy) and those that are primarily paradigmatic (by and large the functional ones, with their roots in rhetoric and ethnography).

#### 2.2.1 Expectations

d) expectation 4: an explanation of why this is the more fundamental opposition e) expectation 5: more details on the nature of the opposition

#### **2.3Issues of structure (example sentence 3)**

The former interpret a language as a list of structures, among which, as a distinct second step, regular relationships may be established (hence the introduction of transformations); they tend to emphasise universal features of language, to take grammar (which they call 'syntax') as the foundation of language (hence the grammar is arbitrary), and so to be organised around the sentence

**Expectations:** f) an equivalent characterisation of paradigmatic grammars **2.4 Reader-writer interaction schema** 



#### **3.Lexical units and interpretation**

cf. the relationship between linguistic forms and their uses (purpose, goal, intention)

**interaction** usually has a communicative intention cf. small talk; <u>phatic function</u> of language

# 3.1 Lexical meaning: <u>underdetermines</u> utterance interpretation

- systematically used in quantifiers, cf.

(1)	some of the apples are ripe	$\rightarrow$ not all are ripe
< /		i i i i i i i i i i i i i i i i i i i

#### **3.2 Nonentailment relations in texts**

(2)	She is poor but honest	$\rightarrow$ contrast between poverty and honesty
(3)	John has good handwriting	$\rightarrow$ (context: recommendation letter for
		academic position)

 $\rightarrow$  he is very recommendable/not very recommendable

(4)	My cat is in the kitchen or in the basement	$\rightarrow$ I don't know for fact that she is in the
		kitchen

#### **3.3 Instances of implicature**

pragmatic presupposition induces:

- focus particles
- **truth-conditionally** transparent verbs
- factive verbs

even, too, just, almost manage to, bother to... believe that, know that

 $\rightarrow$ Implicature: nonlogical inference conveyed by speakers/writers in uttering U in context C without being part of what is said in U

 $\rightarrow$  what is expressed is <u>richer</u> than what is said (Grice)

#### 1. Collocations in text research

'You shall know a word by the company it keeps'. (Firth, 1957)

#### **1.1 Preliminary definition of collocation**

Collocations are: arbitrary, domain-dependent, recurrent and cohesive lexical clusters (Smadja, 1993)

problems:	arbitrariness	$\rightarrow$ difficult for L2 speakers
	domain-dependence	$\rightarrow$ may belong to specific discourse community
	recurrent	$\rightarrow$ frequently repeated in given context
	cohesive	$\rightarrow$ one word in a collocation can determine the rest

#### **1.2 Early attempts**

general/usual vs. technical/personal collocations

- (1) a. to wreak .... b. between a ..... and a hard ....
- (2) Eat my ..... ! (Bart Simpson)

 $\rightarrow$  notion of **collocability**: amount up to which a lexical item enters into different collocations

# 2. Recent issues in lexicography 2.1 Sinclair's principles

a) <u>open-choice principle</u>: a text is the product of a large number of complex choices - constraints: grammatical, semantic, stylistic

b) <u>idiom principle</u>: choice is enhanced/constrained by large number of pre-fabricated utterances

enhancement	example	constraint	example
Many phrases have an indeterminate extent	Time flies Time flies today!	Many uses of words and phrases attract other	It's not use crying over spilt milk
	Our time flies!	words in strong collocation	spin min
Many phrases allow internal lexical variation	Once a priest/thief/ insert profession always a priest/thief/ insert profession	Many uses of words and phrases show a tendency to co-occur with certain grammatical choices	No pains, no gains vs. Nopain, nogain
Many phrases allow internal syntactic variation	Less is more Less can be more	Many uses of words and phrases show a tendency to occur in a certain semantic environment	Take me to your leader!

#### 2.2 Restricted view on collocations

Sinclair: "the occurrence of two or more words within a short space of each other in a text" Collocations have: <u>node</u>, <u>collocate</u>, span/<u>proximity</u> node: the word investigated

collocate(s): any word that occurs in the specified environment of a node

proximity: cut-off left and right of the node (usually: 4 lexical items on each side) span of a proximity of 4 left, 4 right: -4,+4 (4:4)

#### **2.3 Collocation types**

Benson 1999: six types of collocations (node in **bold**)

a) verb + <b>noun (object)</b>	to tackle a problem
b) adjective + <b>noun</b>	weak tea
c) noun (subject) + verb	the heart palpitates
d) noun + <b>noun</b>	a pack of dogs
e) adverb + <b>adjective</b>	keenly aware
f) <b>verb</b> + adverb	hurt badly

#### 3. Testing collocational probability

The ultimate computer (Justin Mullins, New Scientist, 1 June 2002)

Itmakes a Pentium chip look like an abacus. But it's not a military supercomputer or colossal number cruncher. This computer was booted up at the big bang and has been running for 13 billion years. Yes, it's the Universe.

Scientists know that a single fundamental particle such as an electron or a photon will carry a single bit of information, and that they can perform calculations with the information by manipulating the particle. Researchers are trying to build quantum computers to do just that (see "Saline solution"). Such devices would be far more powerful than conventional computers. But how powerful could they be?"Clearly the ultimate is a computer that uses all of the particles in the Universe," says Seth Lloyd, a quantum computing expert at MIT. "I thought it would be interesting to work out its limits."

He began by working out the number of particles in the Universe and the total amount of information they could hold, in the region of 1090 bits. The number of logical operations that could have been performed on those bits is limited by: the energy available to carry out the operations, the speed of light, which determines how fast information can move, and the running time—the age of the Universe. Do the maths and you get the maximum number of logic operations that the Universe could have carried out since the big bang: around 10120.By contrast, the number of bits that can be stored in all the computers ever manufactured on Earth is about 1021 and the number of logical operations carried out is roughly 1030, tiny fractions of the theoretical maximum.

The idea has curious philosophical implications. If the Universe is a giant quantum computer, then everything in it is just part of its calculations. But there's no need to invoke a supernatural programmer. Lloyd believes random quantum fluctuations provide the information input, "programming" the Universe to create complex structures such as living things.

He likens this to a million monkeys typing random numbers into a computer. The chances of these monkeys typing the first billion digits of is vanishingly small, he says. But the chances of them typing out a program that calculates these digits is much higher, because such a program need only be relatively simple.

But Charles Bennett, pioneer in the theory of quantum computation at the IBM T. J. Watson Laboratory in Yorktown Heights, New York, cautions against taking the idea of the Universe as a computer too literally. "The real question is whether we will ever come up with a good fundamental theory that describes the Universe, and if so whether a quantum computer will be able to simulate it efficiently," he says.

n	=		
F(number)	=		
F(of)	=		
F(number of)	=		
P(number)	=	=	
P(of)	=	=	
P(number of)	=	=	

 $H_0 = P(number of) = P(number) P(of) =$ 

# **1.** Metastructures in texts **1.2** Types and definitions

v.Dijk: texts as objects of linguistic description: have micro- and macrostructures  $\rightarrow$  during processing, two levels of structure are formed:

a) Micro-structure	= a network representation of the text.
b) Macro-structure	= an edited / reduced version of the text that preserves the gist of the
	story

#### **1.3 Metastructure processes**

Summarization rules called macro-operators <u>edit the micro-structure</u> Formation of the micro-structure: reader construal

#### 1.4 Kintsch's construction-integration model

Kintsch: construction of the micro-structure (cf. original text)

### 1.5 Steps in micro-structure construal

a) Step 1	- identify most important proposition- <u>"was at war"</u>
b) Step 2	<ul> <li>relate other propositions to this proposition according to certain coherence rules</li> <li>process is limited by <u>capacity of STM</u></li> </ul>
c) Step 3	<ul> <li>try to relate propositions in next sentence to propositions that are active in STM</li> <li>fails in example text: no terms in 2<sup>nd</sup>sentence can be directly connected to preceding sentence</li> </ul>
contrast branc	h: e.g. 2nd sentence = <u>The neighboring tribe was the Masaii</u> $\rightarrow$ connection can be made
d) Step 4	<ul> <li>if step 3 fails then:reinstatement search</li> <li>reinstates information about the text from LTM into STM</li> <li>link <u>new propositions to old propositions</u></li> <li>reinstatement searches slow comprehension</li> </ul>
e) Step 5	<ul> <li>if reinstatement search fails then: start a new coherence graph (e.g., establish network for new sentence)</li> <li>make inference to link <u>new material to old material</u></li> <li>e.g. infererence:<i>Kakra&amp; Gum are Swazi warriors</i></li> </ul>

#### 2. Mental organization in text analysis

One night two young men from Egulac went down to the river to hunt seals and while they were there it became foggy and calm. Then they heard war-cries, and they thought: "Maybe this is a war-party". They escaped to the shore, and hid behind a log. Now canoes came up, and they heard the noise of paddles, and saw one canoe coming up to them. There were five men in the canoe, and they said:

"What do you think? We wish to take you along. We are going up the river to make war on the people."

One of the young men said,"I have no arrows." - "Arrows are in the canoe," they said.

"I will not go along. I might be killed. My relatives do not know where I have gone. But you," he said, turning to the other, "may go with them."

So one of the young men went, but the other returned home.

And the warriors went on up the river to a town on the other side of Kalama. The people came down to the water and they began to fight, and many were killed. But presently the young man heard one of the warriors say, "Quick, let us go home: that Indian has been hit." Now he thought: "Oh, they are ghosts." He did not feel sick, but they said he had been shot.

So the canoes went back to Egulac and the young man went ashore to his house and made a fire. And he told everybody and said: "Behold I accompanied the ghosts, and we went to fight. Many of our fellows were killed, and many of those who attacked us were killed. They said I was hit, and I did not feel sick."

He told it all, and then he became quiet. When the sun rose he fell down. Something black came out of his mouth. His face became contorted. The people jumped up and cried.

He was dead.

→ schema approach (Bartlett), frames (Minsky), scripts (Schank), story grammars (Charniak) constraints: STM, LTM

#### **3.** Constraints in coherence

He sat in the waiting room, his cheeks bloated. After a while, a nurse called him up. Reluctantly, he followed her next door

constraints of causality: A causes B

- 1. temporal constraint (A precedes B)
- 2. counterfactuality constraint (if A had not happened, B would not have happened)
- 3. sufficiency constraint
- If B occurs after A, circumstances for A are still prevailing

steps of comprehension:

- 1. identification of clauses corresponding to the events
- 2. identification of causal relations
- 3. establishment of causal chains

### 1. Process model of text comprehension

#### 1.2 Two comprehension processes

a) microprocesses: sentence by sentence /phrase by phrase b) macroprocesses: gist-oriented

#### **1.3 Microprocesses**

- parser turns text into intermediate semantic representation
- proposition list generated
- coherence graph generator builds <u>network</u> from list
- <u>inferencer</u> fills propositions from the network
- <u>fact organizer</u> determines facts represented by input propositions

#### 2. Psycholinguistics of sentence comprehension

#### 2.1 Derivational theory of complexity (Clark/Clark)

Comprehension:	Derivation of meaning from some kind of
	representation and its subsequent use

Steps: a) sentence is parsed

b) propositional representation derived

## **2.2 Propositions**



#### 2.3 Macroprocesses

- macro-generators reduce input proposition to gist
- control structure guides application of macro-operators

cf. declarative text subjects induce **decision schema** 

#### 2.4 Example of a declarative text

The company has skipped the dividend again this year, advancing cash problems as the cause. Furthermore, banks have refused to renew the credit line without representation on the board of directors. However, recent strengthening in the monthly composite of leading indicators provides an appearance of a better underlying tone to the economy, <u>and company</u> sales could reach \$420-\$440 million, up 25% from last fiscal year. But, considering the higher prospective costs, earnings can fall in the range of \$6 to \$7 per share next year rather than the previously estimated \$7-\$8. Thus, we anticipate a period of slower growth next year, between 3 and 4% per annum.

#### 2.5 List of propositions

Р	input	theory	recall (%)
24	(AND,P26)	S	15
25	(COMPANY, SALES)	S	0
26	(COULD, SALES, P27)	S	8
27	(REACH,SALES,\$420M)	SS	46
28	(UP,SALES,25%)	SSM	62
29	(FROM, P28, LAST YEAR)	S	15
28	(FISCAL,LAST YEAR)	S	8

S = Storage operatorM = Macrooperator

1

#### 2.6 Coherence graph

- P27selected to **head** the graph
- P25, P26, P28 connected via common argument SALES



#### 2.7 Macro cue: sales

- P27, P28: selected for retention in STM
- form bridge between cycles (double application of storage SS)

Models of text comprehension

#### 1. Microprocesses: word recognition principles

**1.1 Word recognition**: the identification of familiar lexical items via audiovisual input

The paradox in word recognition: rapid/effortless comprehension in reading

perceptual basics:	4 letters to the left of fixation, 15 to the right
	letter identities: identified for a range of 5-6 letters
eye tracking results:	word is fixated once for durations from 50-250 ms
	saccades of 25 ms + fixations (200-250 ms)
- short function words	s: sometimes skipped, long words: fixated more than once

#### 1.2 Two routes of recognition

- 1. words are recognized on basis of visual information
- $\rightarrow$  direct mapping from spelling to meaning
- 2. words are recognized visually, a phonological representation is computed
- $\rightarrow$  mapping from phonological representation to meaning

barrier to phonology: orthographic-phonological correspondence and exceptions

→ dual route models: separate mechanisms for rule-governed words and for exceptions

#### 1.3 Sublexical/morphological parsing

teach-er but ham-mer, dis-play

**role of semantics**: words in texts not predictable, so pre-guessing seems inefficient context constrains computation of comprehension

effect classification:	a) frequency effect: common words are recognized faster than
	uncommon words
	$\rightarrow$ parameter of word length
	b) word/nonword effects: nonwords are rejected without access to
	lexicon
	c) context effects: association speeds up word association
	d) degradation of stimulus quality
	e) word superiority effect: letter is recognized faster in a word than in
	isolation
•.• 1	

 $\rightarrow$  position, class, range and inflectional paradigm of a word relate to lexical access

#### **1.4 Testing word recognition**

**naming task**: subjects give a visual representation to name, naming latency is measured time to produce the word: around 500 ms

lexical decision:to decide whether an item is a word or a nonword $\rightarrow$ more time for less predictable words

<i>petrol</i> primes <i>car</i> ,	apple primes tree etc.
-----------------------------------	------------------------

 $1^{st}$  word: the <u>prime</u>  $2^{nd}$  word: the <u>target</u>  $\rightarrow$  prime can accelerate identification (facilitation) or delay it (inhibition) related words tend to co-occur

**frequency**: single most important parameter, most frequent words are easily recognized but: in experimental familiarity is much variation, age of exposure

frequency effect:	a) word is more accessible because we see/hear it more often
	b) because we use it more often

# **1.5 Word recognition models**

## Logogen model (Morton)

→every lexical item has a logogen counterpart evidence collected until logogen threshold is reached, then word is recognized → passive, looks for evidence, does not reject on basis of counterevidence logogen has resting energy level (activation) no distinction between words from external and internal sources compute phonological codes from audio and visual input

## 2. Microprocesses: parsing syntactic structures

**Sentence comprehension**: real-time computation of structural representation and interpretation **Parsing**: Process of assigning syntactic structure to a string of words

**Turshig**. Trocess of ussigning syntactic structure to a string of words

basic finding:a) comprehension is incremental, input not stored and later processed.b) lexical items are processed as they come in

Effects of minimized STM load

- (1)
- (2)

 $\rightarrow$  downside of economy:

input is <u>ambiguous</u>, processing proceeds **in advance** of relevant information  $\rightarrow$ **garden path effects** 

#### **Incremental processing**

- (3) John knew the answer
- (4) John knew the answer
- (5) John knew the answer
- (6) John knew the answer
- (7) John knew that the answer

ambiguity: *know* takes *that* can be

#### **1.** Compiling and composing a corpus **1.1** Parameters of compilation

Parameters: size, text types, sample population

- are determined by use, cf. grammar analysis or discourse
- grammar: short samples; discourse: long samples
- $\rightarrow$  decision on text length is important

cf. BNC, 90% various types of written, 10% spoken

• balance of speech/writing, design must be flexible Corpus size decides on:

a.) multi-purpose corpora examples: *ICE*, *BNC* size: large use: heterogeneous,answer different research questions

b.) special purpose corpora	examples: MICASE, Penn Treebank
	size: variable
	use: homogeneous, to train taggers etc.

## 2. Determining sample size and text genre

# **2.1 Data collection**

→has two ends:

- a) to establish the parameters of a systempreliminary studies carried out to get the **extreme** values
- b) to establish benchmark data
- benchmarks indicate how typical the data are

2.2 Sample size: selected from texts, no fixed ideal size

- depends on frequency of occurring items,
- cf. Biber: 1000 words are sufficient

 $\rightarrow$  more diverse text samples are <u>better than longer samples</u>

**2.3 Genre**: only superficial categorizationcf. academic texts: large linguistic variance official documents: small linguistic variance

#### 3. Sampling: definition, goal and strategies

**SAMPLING:** method of isolating a representative group of individuals or cases from a particular **population** for purposes of drawing **inferences** from the analysis to the population as a whole.

• goal of sampling: representativeness

#### 3.1 Strategy:

a) set the sample frame (list of sample population, e.g. the entirety of all texts in a language)b) define sample universe (i.e. set boundaries of groups of interest, e.g. decision on genre, variety, mode )

c) assessment of relevant dimensions (e.g. linguistic

variation)

- d) fix sample size (e.g. corpus size, text sample size)
- e) determine sampling method

# 3.2 Sampling methods

a) random sampling

- every member (i.e. text) in the chosen sampling universe has an equal chance of being included
- advantage: <u>method</u> is bias-free; disadvantage: <u>sample</u> may not be bias-free

b) stratified sampling

relies on previous studiese.g. sampling universe includes spoken Academic English of: 50% speakers with English as a first language;

30% speakers with English as a second language

20% bilingual speakers

• random sampling from categories must be according to the ratios of speakers

c) systematic sampling

- every nth text after a random start is selected
- e.g. sample 100 texts from a population of 1000: selects therefore every 10th text

d) quota sampling

• sampling plan includes certain pre-grouped numbers e.g. 50% speakers are male, 50% are female

e) judgment sampling

selects texts or speakers arbitrarily

- relevant: previous identification of typesof speakers (e.g. includes only Cockney)
- characteristics of linguistic occurrence:formal/informal/official etc.

#### 3.3 Practical sampling and time frame

- in practice: probability sampling generates **very large** sample sizes (cf. Meyer 2001:44)
- preferred method in CL: non-probability sampling,

esp. judgment sampling or "convenience" sampling

• convenience means to include anything available

Time frame of corpus compilation: should be *narrow* in order to reflect snapshot of language
changes do occur if time frame is too generous

- $\rightarrow$  adequate time frame: 5-10 years
  - but: does not apply to diachronic corpora

Diachronic corpora: depend on defined periods in languagehistory:

Helsinki corpus: has sections on Old English, Middle English,

(in 100 year steps) and Early Modern English (in 70-80 year steps)

# **Evaluation sheet**

A) Please rate the <u>difficulty</u> of the course by ticking the boxes below		
1: very easy/easy	5: incomprehensibly difficult	
B) Please rate the	materials handed out during the course	
1: very helpful/he	elpful 5: waste of paper	
C) How much con	ald you connect the course contents to your previous knowledge?	
1: smoothly	5: not at all	
D) Would you rec	commend the course to a fellow student?	
1: by all means	5: not at all/discourage from attending	
E) How do you ra	te your preparation - <u>quantity</u>	
1: no time spent	5: very labor-intensive	
F) How do you ra	te your preparation - <u>quality</u>	
1: ignorant	5: came fully prepared most of the time	
G) Please rate the <u>average</u> performance in the student presentations		
1: terrible	5: splendid	
H) Please rate your own performance in the student presentation		
1: terrible	5: splendid	
I) What could be improved (short suggestion, 1 line)		

parser choice: structure *answer* as or as

#### **Eye-tracking results (Rayner/Frazier)**

c): delay in fixations, parser had to revise decisione): no delay because *that* signals new clause

#### Minimal attachment principle (Fodor, Frazier)

- parser attaches new input with the minimal amount necessary

- nominal O is less complex than clausal O etc.

Ambiguity resolution: usually on basis of cotext and context

#### **Discourse context (Garnham)**

(8) The firefighter

(9) The firefighter

#### **Breakdown of syntax processing**

Broca's aphasia: slow speech, lack of inflections, plurals, function words (by, of, to)

?

sense without syntax:	girl apple green the the ate
→nonsyntactic cues	

fed they her biscuits dog the

Boca's: difficulty with the serial position of *the*  $\rightarrow$  *the* cues the syntactic structure (Heilman& Scholes)

#### **Strength of cues**

(10) The bike(11) The dog(12) The man

Broca's: scored chance level for (12)

 $\rightarrow$  syntactic analysis relies on cues how to group words into constituents and to establish relationships

Cues for syntax processing:	word order	
	word class	
	function words	
	affixation	
	lexical meanings	
	punctuations/pauses	

 $\rightarrow$  constrain spectrum of syntactic interpretations, reduce ambiguity

train N -s

V -s -ed

single cues: weak or misleading cf. headlines (Pinker)

Squad helps dog bite victim Man eating piranha sold as pet fish Court to try shooting defendant

 $\rightarrow$  word order determinant

Word order vs. inflectional marking: (13) The minister gave the bride the groom

#### Subordinate/main clause ambiguity (Frazier)

(14) After Jane left the party she ran into some old friends (late closure, LC)

(15) After Jane left the party began (early closure, EC)

preferred: LC, parser is sensitive to relative frequency of alternatives

(16) Even though the janitor vacuumed the carpet was covered with dust and crumbs(17) When the janitor vacuumed the carpet was covered with dust and crumbs

 $\rightarrow$  concept of an "expected" amount of information in discourse  $\rightarrow$  cooperative principle of conversation (Grice 1975) and

-> cooperative principle of conversation (Grice 1975) and

4 sub-principles/maxims held together by the

**cooperative principle:** make conversational contribution as required by accepted purpose/direction

#### Grice maxims:

1.) quantity: make contribution as informative as is requested
do not make it more informative

- 2.) quality: try to make a contribution that is true
  - dont say what you believe to be false
  - don't say for what you don't have adequate evidence
- 3.) relation: be relevant
- 4.) manner: avoid obscurity, ambiguity
  - bebriefandorderly

Inference, presupposition, and entailment

inference: cognitive process to complement the semantic modelin discourse by its presuppositions and entailmentspresupposition: something the speaker <u>assumes to be the case</u>entailment: what logically follows from what is asserted in utterance

- $\rightarrow$  listeners use inferences
- $\rightarrow$  speakers have presuppositions
- $\rightarrow$  sentences have entailments

a.) Some of Sue's in-laws are honest

• inference via cooperative principle: Some are <u>dishonest</u>

b.) Mary's mother bought a car

• presupposition: Mary exists, has a mother, has only one mother, mother has money (all depends on speaker's beliefs)

• entailments: mother bought something, bought 1 commodity, somebody bought a car, somebody did something... (all independent from speaker's beliefs)

Types of presupposition 1

**1. existential presupposition**: possessives like *Mary's car* = presupposition of existence Mary's car>> Mary has a car 2. factive presupposition: information following V like know, realize considered as fact (*I know John is nice*) a.) *She didn't realize John was ill*>> John was ill b.) *I regretted telling him* >> I told him c.) I'm glad it's over >> it's over 3. lexical presupposition: presupposition, that another, non-asserted meaning is understood a.) Sarah managed to ... >> she succeeded b.) Sarah didn't manage to ... >> she failed but a.) + b.) >> she tried to others: She stopped smoking >> she used to smoke *She started smoking* >> she didn't smoke before

- factive presupposition: presupposes truth of what is stated
- lexical presupposition: presupposes in unstated concept

Types of presupposition 2

**4. structural presupposition**: presupposes that part of structure is already assumed to be true

a.) When did he leave? >> he leftb.) Where did you buy the cake? >>youboughtcake

• informationisnecessarily<u>true</u>

• subtle <u>manipulation</u> what listener is supposed to believe:

How fast was the car when it ran the red light?>> it ran the red light

#### **5.** non-factive presuppositions:

a.) I dreamed I was rich	>> I was not rich
b.) He pretends to be ill	>> he is not ill

**6. counterfactual presupposition**: what is presupposed is not only not true but contra to what is true

non-factive: *He pretends to be ill* >> he is not ill, but not: he is healthy counterfactual: *If you were my friend*... >> you are not my friend

# **1.** Stylistics as a linguistic discipline **1.1** Definitions

**Stylistics** is the study of how linguistic resources are put to use in the production of <u>actual</u> <u>messages</u> and of the <u>patterns of use</u> in given texts (adapted from Widdowson, 1992) - tries to find <u>correlations</u> of linguistic patterns and social situations

#### **1.2 Issues in the discussion of stylistics**

a) subjectivity vs. objectivity

 $\rightarrow$  the <u>individual</u>linguistic expression vs. all types of utterances

b)conscious vs. spontaneous expression

 $\rightarrow$  analyses of utterances which are connected with a <u>conscious choice</u> vs. the analyses of utterances which are connected with a spontaneous choice

c)<u>deep</u> structure studies v. <u>surface</u> structure studies;

#### 1.3 Reasons for a scientific study of stylistics

stylistics: borne out of subjectivity and imprecision of literary studies

- tries to put lit criticism on a scientific basis
- desire for automatic instant procedure (e.g. Fish, 1996)

but: no aesthetic universals exist

 $\rightarrow$  stylistics is neutral to aesthetics, just concerned with usage patterns

 $\rightarrow$  not prescriptive but descriptive, raising conscious awareness

#### 2. Types of stylistics reseach

#### 2.1 Contextualist stylistics

#### $\rightarrow$ The relevance of context

Expectations about a text  $\rightarrow$  reader <u>consults</u> a) the context

b) his/her world knowledge

in order to <u>clarify the relations</u>in a sequence of sentences

#### **2.2 Pragmatic stylistics Functions:**

Pragmatic stylistics studies <u>context-dependent aspects of meaning</u>  $\rightarrow$  semiotic triangle (Morris, Carnap, Peirce)

syntax (relation between signs)

pragmatics (relation between sign and user) semantics (relation between sign and what it denotes)

= singles out stylistic aspects that are

a.) context-dependentb.) rule-governed

= deals with stylistic features of speech context that help determine which proposition is expressed by a given sentence

## **2.3 Problems in pragmatic stylistics**

Pragmatic stylistics investigates relationship between linguistic forms and their uses Uses: purpose, goal, intention

problem: goals, intentions difficult to analyze A: So did you? B: Hey, who wouldn't?

keywords: deixis, speech acts, presuppositions, reference, information structure, implicature

 $\rightarrow$  pragmatic aspects of meaning: interaction between expression's context of utterance and interpretation of elements within the expression

# 3. Text Utterances3.1 Study of utterances

a central subdomain in pragmatics

- utterance U can be distinguished from illocutionary force = intention of speaker with U
- field of study initiated by Wittgenstein, Austin, Searle

#### 3.2 Performatives as a special type of U

Austin 1962: performatives have no ordinary truth value

- alternative view: performatives are automatically self-verifying (= an a priori truth)
- indirect speech acts:
- (1) Can you pass me the salt = a request for action

 $\rightarrow$  People perform actions with utterances

(2) You are welcome!

Common label: apology, complaint, compliment, invitation, promise, request

#### **3.3 Speech events**

- supported by circumstances of utterance = <u>speech event</u>

cf. cold day, speaker sips from tea

(3) a. That tea is cold – complaint

cf. hot day, speaker sips from (ice-) tea

- (3) b. That tea is cold compliment
- $\rightarrow$  no 1:1 correspondence of utterance/action, circumstances are important

- utterance consists of 3 related acts

Which levels can be discerned in the following cartoon?



"its me again" Stating the most obvious fact but: used to apologize for troubling someone twice "Its you again!" Literal meaning  $\rightarrow$  not the intended meaning Grammaticalized: think of annoying progressive

What is the situation in Sorry I'm sorry I am sorry

3 components of "Its me again"

- $\rightarrow$  stating a sentence with a truth value
- $\rightarrow$  has force of an apology
- → has consequencs (not completely foreseeable)

basic distinctions

- 1. sentences which describe state of affairs
- 2. vs. Sentences which "do" something

the truth or falsity of utterances vs. Felicity of utterances

You are a busy bee! - not literally true but felicitous

Truth as a way of determining meaning Vs. Performative effect as source of meaning



Thus: 3 levels; The literal act of saying something that may or may not relate to the world in truth value

I am going on holidays next week



Snow is white The levels apply under which situations?

#### Searle: What's a speech act? (in Martinich pp.115)

typical speech situation: speaker/hearer/utterance

 $\rightarrow$  illocutionary act (cgf. Austin) can be: to state/describe/warn/comment/apologize etc. (over 1000 in English!)

unit of linguistic communication: not word/sentence/token of symbol but: the production of the symbol in performance of the speech act

= illocution

= rule-governed behavior

On rules: one approach: knowledge of meaning = knowledge of the rules of use; but: fails to formulate the rules necessary

- 1.) regulative rules: regulate relationships that exist independently of the rules (e.g. interpersonal relations; cf. Do x, If y, do x)
- 2.) constitutive rules: constitute and regulate activities dependent on the rules (e.g. football; x counts as y)
- $\rightarrow$  semantics: setsofconstitutiverules
- illocution: acts in accordance with these sets

on propositions:

- within different illocutionary acts, the included acts of reference and predication can be the same:
- a.) John, leave the room!; b.) John will leave the room; c.) Did John leave the room?

a-c: common content  $\rightarrow$  equals proposition

ex. a dichotomy of illocutionary act and propositional content

therefore: every sentence has two parts:

- a) propositional element
- b) function indicating device (word order, intonation, stress, mood, performatives etc.)

on meaning: refers to Grice's meaning: "A intends with x an effect on audience by their recognition of the intention"

example: behaving French vs. telling "I'm French"

difference: suspicion raised by recognition of the former intention

other example of such unbalance: German-officer-story

 $\rightarrow$  we must capture intentional AND conventional components

# 1. Embedding stylistics in other fields of linguistics

# 1. 1 Stylistics as pragmatic research

**Pragmatics:** the study of meaning as communicated by a speaker and interpreted by a listener

 $\rightarrow$  analysis of what <u>**people**</u>mean

 $\rightarrow$  requires study of circumstances = study of <u>contextual meaning</u>

# **1.2 Contextual meaning:**

how to communicate more than what is said

- differentiation of what is said/unsaid involves distance
- closeness implies shared experience

 $\rightarrow$  pragmatics: <u>the study of the expression of relative distance</u>(Yule 2002)

# **1.3 Functions of stylistics**

Stylistics investigates the relationship between linguistic forms and their uses (purpose, goal, intention)

- use of language for interaction = the interpersonal function
- interaction usually has a communicative intention

cf. small talk; phatic function of language

# 2. Deixis, indexicals and referring expressions 2.1 Defining deixis

Deixis: the process of pointing via language

• deictic expressions = indexicals, are acquired early

# 2.1 Types of deixis:

- 1. person deixis (me, you)
- 2. spatial deixis (*here, there*)
- 3. temporal deixis (*now*, *then*)
  - most useful in face-2-face conversations: I just found this here
  - most basic distinction in deixis:

near to speaker (proximal terms) vs. away from speaker (distal terms)

- speaker = deictic center (space/time)
- distal terms: can indicate near listener or

away from speaker and listener, cf. Japanese

reflected in: demonstratives

•

## 2.2 Types of deictic reference A

a) Person deixis: in conversations constant shift of *I/you* (in L1 acquisition: phase of confusion)
 → many languages include social status (higher vs. lower)
 → indication of higher status: honorifics (cf. social deixis)

- German *du/Sie* contrast, aka T/V- distinction from
- French *tu/vous*
- Spanish *Usted*  $\rightarrow$  3rd person  $\rightarrow$  indicates distance
- English His excellence, please this way!

3rd person distance: used in accusations *Somebody made a mess in the kitchen!* 

#### b) Spatial deixis:

modern English: here/there, but older forms are

*yonder* (more distant from speaker)

place + motion:	hither (to this place),	
	<i>thence</i> (from this place)	

#### 2.3 Types of deictic reference B

*This/here*: acquired early, can be seen, experienced because close *That/there*: acquired late

Deictic projection: (parked car) I'm over there!

- anthropological basis of spatial deixis: psychological distance
- $\rightarrow$  physically close objects are psychologically close,

 $\rightarrow$  some physically close objects can be psychologically distant (nasty food on plate) *I'm NOT going to touch THAT*!

#### c) Temporal deixis

yesterday/tomorrow - depend on knowing the utterance time

 $\rightarrow$  similar to spatial deixis, events are conceptualized as objects tenses: present = proximal, past = distal unlikely situations: marked distal *If I had 1mio* \$... reported speech: I asked her if she was planning to go there...

 $\rightarrow$  focus shifts to new relative center deictic expressions depend on: context, speakers intention; used for **relative** distance

#### **1. Referring expressions in texts 1.1 Definition and examples**

**reference:** act from speaker to enable listener to identify something **referring expressions:** 

a) proper nouns (*Mary*),
b) definite NPs (*the pianist*)
c) indefinite NPs (*a woman*)
d) PRO (*she*)

 $\rightarrow$  choice based on speaker's assumptions <u>what listener knows</u>

#### 1.2 Shared knowledge and interpretation

- shared knowledge in shared visual contexts:

(1) Look at her/this!

- shared memory:

(2) Remember that weird guy in the first semester?

- shared perception: invent names:

(3) Mr Aftershave is late today

- shared world knowledge:

(4) We need to find a cop (entity is unknown but can be assumed to exist)

- shared knowledge about descriptive properties:

(5) He needs a rich wife(who/whatever fits the description)

#### →successful reference is collaborative

#### 2. Identify deictical and referring expressions in the following text

He found the corpse covered with a blanket on the campaign cot where he had always slept, and beside it was a stool with the developing tray he had used to vaporize the poison. On the floor, tied to a leg of the cot, lay the body of a black Great Dane with a snow-white chest, and next to him were the crutches. At one window the splendor of dawn was just beginning to illuminate the stifling, crowded room that served as both bedroom and laboratory, but there was enough light for him to recognize at once the authority of death. The other windows, as well as every other chink in the room, were muffled with rags or sealed with black cardboard, which increased the oppressive heaviness. A counter was crammed with jars and bottles without labels and two crumbling pewter trays under an ordinary light bulb covered with red paper. The third tray, the one for the fixative solution, was next to the body. There were old magazines and newspapers everywhere, piles of negatives on glass plates, broken furniture, but everything was kept free of dust by a diligent hand. Although the air coming through the window had purified the atmosphere, ...

(excerpt from GarcíaMárquez, Gabriel. Love in the time of Cholera. Penguin)

## 3. Collaborative functions

### 3.1In discourse: collaboration in reference

functions:

- a) intention to identify
- b) recognition of intention

stylistic example:  $\rightarrow$  context makes difference between persons/objects

- person as object: Can I borrow your Shakespeare?

- object as person: Where is the lobster sitting?

## **3.2 Conventionalized expressions**

 $\rightarrow$  convention at work:

- (6) a. Shakespeare takes up the top shelf
  - b. I hated Shakespeare at school
  - c. We're going to see Shakespeare in London
- $\rightarrow$  pragmatic connection between proper names and objects
  - invites listener to make expected inference
  - role of co-text:
- (7) a. Japan wins world cup
  - b. Japan wins trade talks

# 4. Principles of text organization

# 4.1Four sub-principles/maxims

- held together by the**cooperative principle:** make conversational contribution as required by accepted purpose/direction

# 4.2 Grice maxims

1.) quantity: make contribution as informative as is requested

- do not make it more informative
- 2.) quality: try to make a contribution that is true
  - don't say what you believe to be false
  - don't say for what you don't have adequate evidence
- 3.) relation: be relevant
- 4.) manner: avoid obscurity, ambiguity
  - be brief and orderly

He found the compse covered with a blanket on the campaign cot where he had always slept, and beside it was a stool with the developing tray he had used to vaporize the poison. On the floor, tied to a leg of the cot, lay the body of a black Great Dane with a snow-white chest, and next to him were the crutches. At one window the splendor of dawn was just beginning to illuminate the stifling, crowded room that served as both bedroom and laboratory, but there was enough light for him to recognize at once the authority of death. The other windows, as well as every other chink in the room, were muffled with rags or sealed with black cardboard, which increased the oppressive heaviness. A counter was exammed with jars and bottles without labels and two crumbling pewter trays under an ordinary light bulb covered with red paper. The third tray, the one for the fixative solution, was next to the body. There were old magazines and newspapers everywhere, piles of negatives on glass plates, broken furniture, but everything was kept free of dust by a diligent hand. Although the air coming through the window had purified the atmosphere, ...

(excerpt from GarcíaMárquez, Gabriel. Love in the time of Cholera. Penguin)

#### 1. Discourse analysis

#### **1.1 Pre-sequences**

- to avoid risk by checking the situation and NOT to put people in a face-threatening position

A: Are you very busy? B: No. A: Can I ask you to... B: Yes. A: Sorry.

→pre-requests either result in a "go-ahead" or in a "stop"

A: Mind if I use your phone?
B: Yeah, sure!
→read: no, use it
B answers request, not pre-request, thus short-cutting the pre-request

#### **1.2 Pre-invitation & Pre-announcement**

(1) a. What are you doing tonight?b. Guess, what happened!

#### **1.3** Conversation and preference structure

Floor = "the right to speak", who controls the floor has the <u>turn</u>  $\rightarrow$  attempts to switch control: turn-taking

- conventions form turns: are set up in the LOCAL MANAGEMENT SYSTEM
- LMS has possible change-of-turn points, so-called TRANSITION RELEVANCE PLACE (TRP)
- Certain features in a conversation are associated with TRPs (differ from social group to group)

TRPs happen where speakers 1. cooperate or 2. fight for floor, only for different reasons

#### 1.4 Pauses, overlaps, backchannels

Smooth transition of turns is **valued**→too long pauses or too long overlaps are **awkward** 

- long pauses: one speaker hands over turn, second speaker remains silent
- $\rightarrow$ attributable silence

overlap: occurs sometimes initially (both speakers start),

 $\rightarrow$ LMS steps in, one speaker stops

- a difficult shared rhythm occurs when the start-overlap-stop pattern repeats
- younger speakers: permanent overlap = talking at the same time = signals closeness
- competing speakers: overlap is seen as interruption

"CAN I FINISH, puh-leeze?!" = an appeal to unstated conversation rules

 $\rightarrow$ other floor-holding devices: announcing larger structures: "I've got three points to make. First..."

backchannelling signals: uh-uh, yeah, mmm... = feedback that the message is received, = listener is not objecting

 $\rightarrow$  in face-2-face: not providing backchannel looks like withholding agreement which implies disagreement

### **1.5 Conversational style**

- 1.) high involvement style = active talk, almost no breaks, some overlap
- 2.) high considerateness style = slower rate, longer pauses, no overlap, no interruption

type 1 speaker meeting type 2 speaker: a pretty one-sided conversation

adjacency pairs: automatic structure patterns in a conversation

- A: How are you? B: Fine!
- always have first and second part; 1<sup>st</sup> part always creates expectation of second part
- missing second part is therefore meaningful

examples:	A: Thanks!	B: You are welcome.
	A: Can you help?	B: Sure.

Insertion sequence: adjacency pair spans over some interaction in between A: Can you help? B: What time is it? A: 8 pm B: Sure!

- delay marks potential unavailability $\rightarrow$ delay is always meaningful

#### 2. Vagueness preliminaries

- (1) a. What defines a REPTILE?
  - b. Which wordclass is LIKE?
  - c. Where do CORALS belong?
  - d. How nice is NICE?
  - e. THE KING OF FRANCE IS BALD true or false?
- → categories are **discrete or "hard"** (Aristotelian)
  - vs.

# categories are **blurred and fuzzy**

 $\rightarrow$  sufficient vs. necessary conditions of membership Frege: law of the **excluded middle** 

#### 2.1 The sorites paradox

paradigm sorites set-up (Keefe 2003) for the predicate F: sequence of objects  $x_i \rightarrow$  two premises

(2) a.  $Fx_1$ b. for all i, if  $Fx_i \rightarrow \text{then } Fx_{i+1}$ 

- both appear true, but: for suitably large n, the putative conclusion

c. Fx<sub>n</sub>is false!

#### Hedges: if speakers don't fully adhere to maxims (Yule, 2004)

a.) As far as I know.../I'm not sure it's right but.../I guess...

hedges show, speaker is conscious about maxims of quality

b.) As you probably know/ to cut a long story short.../I will not bore you with details...

speaker is conscious about maxim of quantity

c.) oh by the way.../anyway,...

speaker is conscious about relation, therefore marks relevance or how the utterance is connected to the rest

d.) This may be confusing, but.../not sure if this makes sense, but...

speaker is conscious about manner

- institutions/courtroom/interrogation sidestep the maxims
- sometimes the speakers sidesteps them "No comment." etc.

# Advanced coherence issues The de Beaugrande/Dressler view

 $\rightarrow$ a relation of interconnectedness of text is achieved through syntactic features such as

- the use of deictic, anaphoric and cataphoric elements
- a consistent tense structure

#### 1.2 The Halliday/Hasan view

 $\rightarrow$ subsume syntactic elements that make a text coherent under the term cohesion

thus... the relationship between coherence and cohesion is debatable:

- whether cohesion includes only the morphosyntactic surface structures that correspond to the underlying text structures,
- whether cohesion also has lexicological components,
- whether coherence is only mapped very selectively onto the surface and comprises much more, even the world view of a whole culture

#### **1.3 Segregation**

Coherence is intrinsically indeterminate because it is relative to the way in which language users ascribe their understanding to what-they-hear (or what-they-read). Accordingly, coherence is not a text-immanent property at all (as are cohesion and connectivity). It is not given in the text invariantly and independently of the interpretation, but rather 'comes out' of the text in the sense that it is based on the language of the text, in the same way as it is based on additional information provided *inter alia* by the linguistic context, the socio-cultural environment, the valid communicative principles and maxims and the interpreter's encyclopaedic knowledge (Bublitz 1999)

#### 2. Coherence

is therefore basically semantic-pragmatic,

a cognitive construct that is partly mapped onto the surface structure, necessary to help the reader establish and develop the meaning of a text

#### 2.1 Linguistic phenomena

mainly logical sequences, such as

- a) cause/consequence (using and, so),
- b) condition/consequence (using *if*),
- c) instrument/achievement (using by),
- d) contrast (using *however*),
- e) compatibility (using and),
- f) concession (using *although*), etc.

TEST A: Please complete the text in the most natural way by inserting lexical items

#### 

One potential consequence of sexual size dimorphism is conflict among characters.\_\_\_\_\_, a structure evolved for reproduction impair performance during other activities (e.g., locomotion). Here we provide quantitative evidence for an animal overcoming an evolutionary conflict generated by differential scaling and sexual size dimorphism by obligatorily removing an undamaged reproductive organ, and thus enhancing its locomotor performance. The spider genus Tidarren (Araneae, Theridiidae) is interesting because, within several species presenting extreme sexual size dimorphism (males representing #1% of the total mass of the female), males voluntarily remove one of their two disproportionately large pedipalps (modified copulatory organs; a single one represents #10% of the body mass in an adult) before achieving sexual maturity. Whether the left or right pedipalp is removed \_\_\_\_\_\_ to be random. Previous researchers have hypothesized that pedipalp removal might enhance locomotor performance, a prediction that has remained untested. We found that, for male Tidarrensisyphoides, maximum speed increased (44%) and endurance increased (63%) \_\_\_\_\_\_ after pedipalp removal. \_\_\_\_\_, spiders with one pedipalp moved #300% distances before exhaustion and had a higher survival after exertion than those with two pedipalps. Removal of the pedipalp have evolved in male Tidarren because of enhanced abilities to search for females (higher endurance and survival after exertion) and to out-compete rival males on the female's web (higher maximum speed). Our data also highlight how the evolution of conflicts result in the evolution of a novel behavior. A central tenet of optimality theory is that natural selection will optimize structure and performance resulting in an overall \_\_\_\_\_\_ fit organism (1, 2). \_\_\_\_\_\_ studies, \_\_\_\_\_, have shown that the evolution of high performance in one task can lead to decreased performance during another task (e.g., refs. 3–5). In extreme cases of such apparent conflicts, a structure evolved for one activity can impair performance during another activity. For example, Darwin (6) described how sexual selection for sex differences \_\_\_\_\_\_ lead to such functional conflicts, \_\_\_\_\_\_ in males. He depicted how the \_\_\_\_\_ elaborate feathers in some male birds result in enhanced reproductive success via female mate choice, yet also reduces or constrains flight capacities, thus making the animal more susceptible to predators (7). A relatively unexplored area is how organisms cope with these constraints imposed by factors such as sexual selection, natural selection, or allometry. One view of constraints is that they limit or hinder morphological or behavioral change, but another possibility is that constraints result in a novel phenotype or behavior (8, 9). For example, as plethodontid salamanders undergo evolutionary miniaturization (become smaller), they shift from a terrestrial to an arboreal lifestyle (10).

# **TEST B:** Please complete the text in the most natural way by either inserting items and/or by choosing from the lists

#### Suntan lotion primes the skin's defences

It MODAL: \_\_\_\_\_\_ possible to develop suntan lotions that kick-start the skin's protective mechanisms against cancer before you hit the beach. The key ingredient MODAL:

\_\_\_\_\_be a fragment of DNA just two bases long, called a TT dimer, that mimics one of the signs of DNA damage from ultraviolet light.

Barbara Gilchrest's team from BostonUniversity and colleagues in the Netherlands exposed hairless mice to a mild ultraviolet radiation, the equivalent of half an hour of afternoon sun. They found that genes involved in DNA repair were **extraordinarily** 

> extremely fully very commonly less hardly

not active in mice that had the TT dimmer rubbed on their skin before exposure. And only 22 per cent of the treated mice developed skin cancers after 24 weeks compared with 88 percent of untreated mice.

People who want a tan MODAL:\_\_\_\_\_\_not even need to go out in the sun. Mouse skin does not produce melanin but earlier tests on guinea pigs **prove** 

indicate suggest hint negate

that the TT dimer also triggers the tanning response. The team has not yet begun testing it on people.

TEST C: Please complete the text in the most natural way by either inserting items and/or by choosing from the lists

Rogue star smashed up the solar system

A Rogue star MODAL: \_\_\_\_\_\_ have ploughed through our solar system in the distant past. It MODAL: \_\_\_\_\_\_ have shaken up the outer reaches and MODAL: \_\_\_\_\_\_ explain the peculiar properties of the key bodies which orbit in the Kuiper belt.

These balls of ice, up to a few thousand kilometres across, inhabit the region between Uranus and Neptune. All / Most / Many / Some / Few / None of the planets orbit in the same plane, that of the proto-planetary disc from which they were formed.

But All / Most / Many / Some / Few / No Kuiper belt objects, including Pluto, travel in "high inclination" orbits, at a sharp angle to the plane of the planets.

Alice Quillen and Eric Blackman of the University of Rochester, New York, and David Trilling of the University of Pennsylvania **speculated** 

hypothesized claimed proved

denied that the orbits MODAL \_\_\_\_\_\_be explained by another star passing the solar system, wreaking havoc, as it went, so they investigated the idea using computer simulations. They found that if a star exactly

about

**roughly** a fifth of the sun's mass approached the sun perpendicular to the plane of the planets, and within 50 times the distance of the Earth to the sun, then about 30 per cent of the Kuiper belt object MODAL\_\_\_\_\_ be scattered into high – inclination orbits. The rest of the solar system MODAL: \_\_\_\_\_ be completely / mostly / relatively / hardly / undisturbed.

In a paper submitted to Astronomical Journal, the researchers imagine

believe allow hypothesize substantiate claim

prove that the interloper came from

the star cluster in which the sun was formed, and that the close encounter MODAL: \_\_\_\_\_\_ have occurred within a billion years of the birth of the solar system.

### 1. Diffusion of knowledge in (academic) texts

hedges serve multiple purposes:

- a) the author A of an academic text knows that reality has more than "ideal" cases of e.g. Newtonian mechanics but is blurred at microlevels
- $\rightarrow$  hedge an utterance by saying "Ideally,..." etc.

caveat: intended listeners share this knowledge and don't need the explicit hedge marking

- b) the author B of a popular academic text (who at the same time is an informed reader of a) knows that his/her readers **do not** share the knowledge of a.
- $\rightarrow$  the hedgy precision of a) has a different function
- $\rightarrow$  hedging used as simplification
  - c) the reader C of b) has a contract that contents will be processed and force-fed via hedges and metaphors

C knows that C does not know what A or B know so C expects lexicalization that coincides with C's knowledge by

transformation of specific knowledge (source domain) to

generic knowledge (target domains)

## $\rightarrow$ cognitive core of metaphorization

#### 2. Hedge expressions

#### 2.1 Functions

Hedges: a metaphorical device (coined by Lakoff )

**properties:** to delimit the scope of an utterance via vagueness i.e.

#### they...

- a.) distance the speaker from the utterance
- b.) blur quantities, attributes, specifications given in the utterance
- c.) relativize notions of truth

Canonical examples: sort of, kind of

#### 2.2 Usage

Hedges can be used to estimate therefore

a) the commitment of a speaker/producer of a text to his/her utterance

b) the amounts, causes, applications in question and

c) the distance of the listener to fully commit to the semantic content or truth value of his/her utterance

hedging: enables therefore both to cross borders which are primarily borders of knowledge

#### 2.3 Forms

**Hedges** follow pragmatic lexicalization patterns cut across syntactic classes

 $\rightarrow$  there is no definite, taggable class of a hedge, only:

#### a) lexical items

- 1. reporting verbs (*thinks, believes, claims, says*, etc.);
- 2. verbs of outcome and resultatives (*succeeds, finishes*, etc.)
- 3. prepositional phrases of mediation such as *by means of, on behalf of, etc.*
- 4. modal verbs in their deontic and epistemic meaning
- 5. modal adverbs (probably, likely, possibly, certainly...)
- 6. quantifiers (some, most, few...)

#### b) discourse items

- 7. direct vs. indirect speech
- 8. the use of the passive voice
- 9. the use of Lakoffian hedge expressions

#### c) pragmatic items

- 8. a wide spectrum of presuppositions the author assumes to be the case (factive, lexical, counterfactual, of the type *When did Smith stop lying?* etc.)
- 9. entailments that logically follow from what is asserted in an utterance
- 10. implicatures where information assumed to be known is not stated, communicated but not lexicalised

# 3. Speech-act theory and texts 3.1 Speech act typology

a) locutionary act: basic act of utterance, of producing a meaningful linguistic expression usually well-formed utterances have a <u>purpose</u>

**b) illocutionary act:** utterance is produced with some <u>function in mind</u> utterance has communicative force

(4)	I've just made some coffee	- can be: statement/offer/explanation, = its	
		illocutionary force	

c)perlocutionary act: utterance should have an effect

cf. Utterance (4)	function/illocution	effect/perlocution		
	statement	listener can appreciate the smell		
	offer	listener invited to drink some too		
	explanation	let listener know why speaker was not		
	-	there etc.		

stylistically usually analyzed is illocution; gives what utterance "counts as"

#### illocutionary force

a.) I'll see you later	
b.) I predict that a.)	prediction
c.) I promise you that a.)	promise
d.) I warn you that a.)	threat

## 1. On utterances

## 1.1 Conventional and pragmatic perspective

a) utterances report facts, describe situations truly/falsely

b) utterances are intended not to report facts but to influence people

 $\rightarrow$  descriptive fallacy= to say, there are only statemental utterances ex. uttererances that look like statements but: <u>utterer ''does'' something</u>

(1) I [apologize / name this ship / bet you \$10] ...

 $\rightarrow$  are all performative utterances

→have to be said in appropriate context(cf. "I do" in wedding ceremony)

- problematic: "I promise" difference of outward act and potential inner emotion
- therefore: sometruthsareimplied

 $\rightarrow$ the convention evoked must exist and be accepted

## 2. Landmark discovery: Searle

## 2.1 Searle: What's a speech act? (in:Martinich1999:pp.115)

 $\rightarrow$ illocutionary act (cf. Austin) can be: to state/describe/warn/comment/apologize

 $\rightarrow$  unit of linguistic communication: not word/sentence/token of symbol but: the production of the symbol in performance of the speech act

= illocution and = rule-governed behavior

# 2.2 On propositions

- within different illocutionary acts, the included acts of reference and predication can be the same:
- (2) a. John, leave the room!
  - b. John will leave the room
    - c. Did John leave the room?

a-c: common content → equals proposition?
→ dichotomy of illocutionary act and propositional content

therefore: every sentence has two parts:

- c) propositional element
- d) function indicating device (word order, intonation, stress, mood, performatives etc.)

## 3. Forms of reference

### **3.1 Anaphoric reference**

in-texthierarchy: A man... the man... he = subsequent introduction to already introduced referents

expression: anaphora; initial expression: antecedent

## **3.2 Identity problem**

antecedents are not always identical

(3) Peel and slice 6 potatoes. Put them into cold water

6 potatoes does not equal them as they are peeled and not the same anymore

zero-anaphora:

(4) a. Cook for 3 minutes
b. a red one and a green → zero-anaphora are means of maintaining reference

(5) The bus was on time but he didn't stop

 $\rightarrow$  successful reference does not depend on strictly grammatical agreement

#### 4. Presupposition and entailment 4.1 Definitions

 $\rightarrow$ information assumed to be known is not stated, communicated but not said

presupposition:	something the SPEAKER assumes to be the case prior to utterance
entailment:	what logically follows from what is asserted in utterance

 $\rightarrow$  speakers have presuppositions

 $\rightarrow$  sentences have entailments

#### (6) Mary'sbrotherbought 3 horses

presupposition: Mary exists, has a brother, has only one brother, brother has money (all depends on speaker's beliefs)

entailments: brother bought something, bought 1 horse, bought 2 horses, bought 3 animals, somebody did something... – independence from speaker's beliefs

presupposition: >>, = "presupposes"

(7) a. Mary's dog is cute (p)
b. Mary has a dog (q)
c. p >> q
d. Mary's dog isn't cute (NOT p)
e. Mary has a dog (q)
f. NOT p >> q (known as "constancy under negation")

# 1. Conceptual metaphor theory

# **1.1 Domains and cognition**

- cognitive abilities create new concepts out of existing concepts  $\rightarrow$  mental transfer of concepts; basic concepts: directly understood without metaphor, cf. simple spatial concepts like up/down

- priority of body functioning reflected in up/down, front/back, in/out, near/far etc.

- some experiences are "more" physical, others "more" cultural, cf.

(1) Happy is up (= the orientational metaphorical concept)

- the nonphysical is grounded in terms of the physical (Sarah is in 3<sup>rd</sup> grade)

# 2. Structural metaphors

- structural metaphor: systematic correlation with experience

Argument is war – arguments between people use properties of war like: intimidation, threat, insult...

Labor/time is a resource: material resources can be quantified, are a substance of certain kind, are given a value, use up over time

Time/labor = substance allows quantification

# 3. Early approaches

Aristotle: metaphorical meaning of A is the literal meaning of B Richards 1965: ex. vehicle, tenor and ground, cf. *foot of the mountain* 

> vehicle (item used metaphorically): foot tenor (metaphorical meaning of vehicle): lower portion ground: spatial configuration

# 4. Metaphors We Live By

# Lakoff/Johnson 1980: mapping from source domain to target domain

basic semantic notions (time, quantity, state, cause): understood as extensions of basic conceptual elements

- some concepts emerge directly: object, substance, container cf. Cruse, 2004:

categories: understood as containers or bounded regions in space (something can be in or outside of a category, express transitivity)

quantity:more is up, less is down (Deficit figures are falling, Car sales top at \$1bn...)linear scales are paths (John is by far the best but Mary is catching up)time:dates are locations (We were coming close to Joe's birthday)periods are distances (They sell gingerbread all the way to Christmas)

# 5. Incompatible domains and blending

This book is full of nuggets of information  $\rightarrow$  selects array of physical, abstract, mental, social features from domain

John is married to a library  $\rightarrow$  incompatible domains, 2-sided metaphor - blending: merges selected conceptual features of source domain and target domain cf. *This surgeon is a butcher* This butcher is a surgeon

#### 6. Metaphor and metonymy

**Metaphor**: from Greek: transfer (of meaning), the mapping of a structure of one conceptual domain onto the structure of another conceptual domain

1. Microprocessors are the brains of a computer 2. The company wants to hire new brains source domain target domain brain "brain" body computer

**Metonymy**: the substitution of one conceptual entity by another conceptual entity within the same domain.

- metonymic concepts: from experience with physical objects, correlation of experiences between entities, cf. *back of the chair* part for whole – place stands for event

object for user: institution stands for person

→ metaphor bases on resemblance, metonymy bases on association (Cruse)

- metaphorneeds 2 domains
- metonymy: relies on association between 2 components within the same domain

We drank some bottles
Mary is not in the phonebook
Brasil won the world cup
Bush went to war in 2003
Go, fill up your car
I noticed some new faces in the audience

#### 7. Find examples for Lakoff/Johnson's notion of: Ideas are plants

## **1** Blame the volcano trouble on sun and global warming by Kate Ravilious

Altered weather patterns may have made the disruption caused by volcanic ash from Iceland worse – and climate change could be partly to blame.

5

Ash-laden Arctic air is blowing over Europe because the usual westerly winds are being "blocked" by a high-pressure weather system, and such blockages may be more common now than they used to be. "We predict that the frequency and length of blocking events will increase in a warmer climate," says Christophe Cassou of the European Centre for Research and Advanced Training in Scientific Computation in

A model of air flow developed by Cassou and colleague ÉricGuilyardi shows that global warming will increase summer blocking events over Europe.

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10

Blocking occurs when the jet stream, which carries winds from the west, is forced to slow down suddenly. "It catches up on itself and starts to meander," says Mike Lockwood from the University of Reading, UK. Sometimes the meanders double back on themselves, allowing north-easterly winds to fill the gap.

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When solar activity is low this jet stream "pile-up" shifts eastwards across the Atlantic Ocean, bringing blocking events to Europe. The reasons seems to be that solar activity influences high-level stratospheric winds, and these eventually feed through to the troposphere, where the jet stream lies.

25 Sun winding down

Toulouse, France.

"Solar activity tends to ramp up for 300 to 400 years and then fall again over about 100 years," says Lockwood. Right now the sun has just begun its downward path from a maximum, suggesting that blocking patterns will become more common over Europe during the next century.

Global warming may compound the problem. "As the troposphere becomes warmer you get more vertical mixing but less horizontal mixing, making it easier for a blocking event to occur," says Julian Hunt, a climate scientist at University College London. The lack of horizontal mixing makes it easier for weather systems to sit in one place.

Hunt's research suggests that the problem will become particularly acute in summers to come, and that blocking events may become more frequent and sit over Europe for 20 days or more.

Identify stylistic features of the following three main categories. List only the exact number of items required. Wrongly identified items will be penalized with -1 each!<sup>1</sup>



## C) Conceptual metaphor expressions (12). List line # and item 12+16 For at least 8 items, identify source domain and target domain

	Line #	expression	source domain	target domain
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<sup>&</sup>lt;sup>1</sup>Gradingscheme: max: 60 60-55 (1) 54-47 (2) 46-36 (3)

1	Green machines by Helen Knight
5	Not only are fossil-fuel-fired power plants major polluters, they are also pretty inefficient. Most of the energy in the fuel they burn is lost as heat. Salvaging some of this energy to reduce our consumption of coal and natural gas, not to mention lower our greenhouse gas emissions, is not a new idea. Combined heat and power stations already do this, using the heat produced in electricity generation to keep
10	Some countries, such as Denmark and Finland, generate significant proportions of their domestic heating requirements in this way. But most power plants are sited far from towns and cities, making it impossible to use the waste heat in this way. So efforts are under way to convert the heat lost in power-plant exhaust flues into useable electricity. One option is to use a twist on the Rankine cycle – the thermodynamic cycle used in power stations whereby superheated steam is generated
15	in a boiler, drives a turbine and is then fed back to the boiler.
20	Among others, GE Global Research – General Electric's European research arm, based in Munich, Germany – is developing "organic" Rankine cycle technologies for waste heat recovery. These systems use a refrigerant liquid with a lower boiling point than water, meaning less energy is required to transform it into a high-pressure vapour to drive a turbine.
25	However, such technologies are costly because they involve installing new generators to existing power plants. Alphabet Energy, a spin-out company from the University of California, Berkeley, aims to cut the cost of waste heat recovery using a thermoelectric device that can convert a temperature difference across its surface into a current.
30	The company claims that this could offset as much as 500 million tonnes of carbon per year worldwide. But it refuses to reveal how the company's device works or what materials it is using to produce them. However, in a study published in Nature in 2008, Alphabet co-founder Peidong Yang demonstrated that silicon nanowires could act as a thermoelectric device.
35	derably cheaper. "Waste heat recovery technologies tend to be fairly inefficient, at around 10 per cent efficiency, but when your waste heat source is free, and you're doing nothing with it otherwise, 10 per cent is actually very significant," he says.
39	In principle, the technology could also be used to recover waste heat from car exhausts and aircraft engines.

Identify stylistic features of the following three main categories. List only the exact number of items required. Wrongly identified items will be penalized with -1 each!<sup>2</sup>



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