Construction Grammar

Holger Diessel
University of Jena

holger.diessel@uni-jena.de
http://www.holger-diessel.de/

Words seem to have a prototype structure; but language does not only consist of words.

What is the nature of grammatical categories?

    1. conjunction

    2. subject

    3. transitive clause

Grammatical categories

- Hypothesis 1: Grammatical categories are like words. They have a prototype structure grounded in experience?

- Hypothesis 2: Grammatical categories are like mathematical categories? They have clear-cut boundaries and are *not* grounded in experience.

Generative grammar

Noam Chomsky
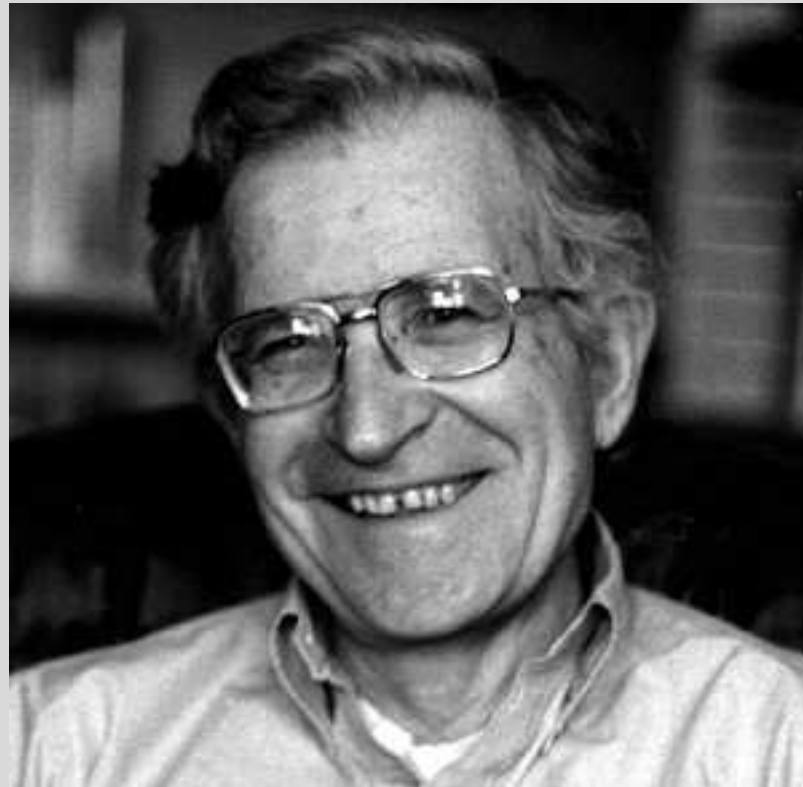
The autonomy of syntax

Colorless green ideas sleep furiously.

[Chomsky 1957]

Categories and rules

Parts of speech: N, V, DET
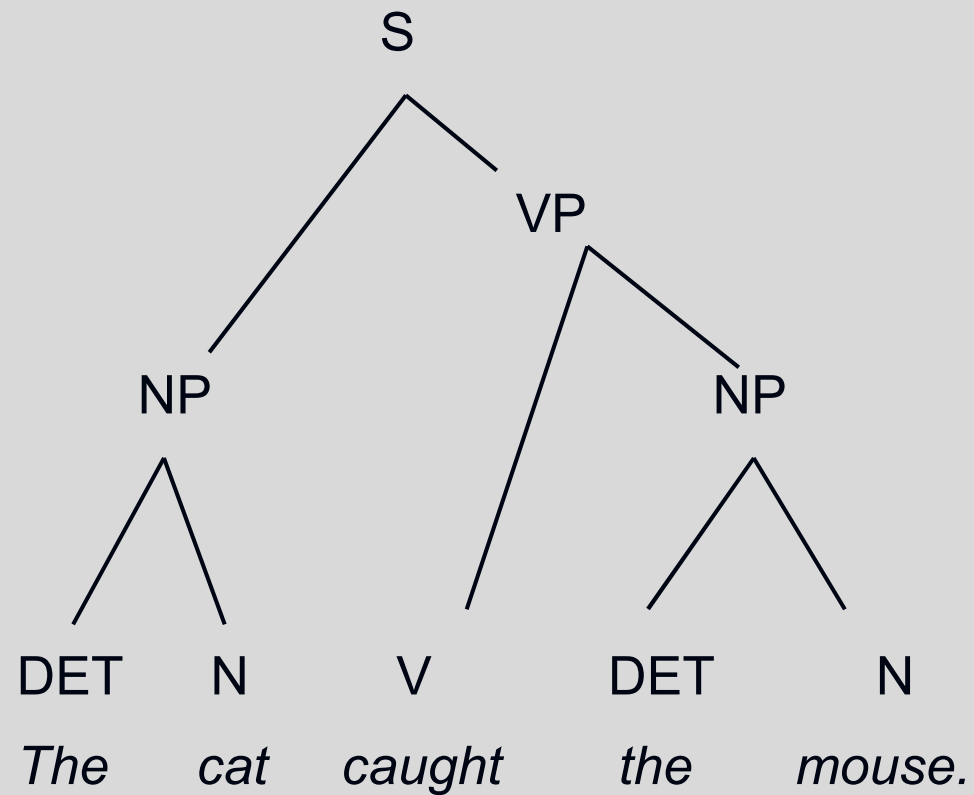
Phrasal categories: NP, VP, S

Phrase structure rules:

     NP → DET (A) N

     VP → V (NP)

     S → NP VP

Categories and rules
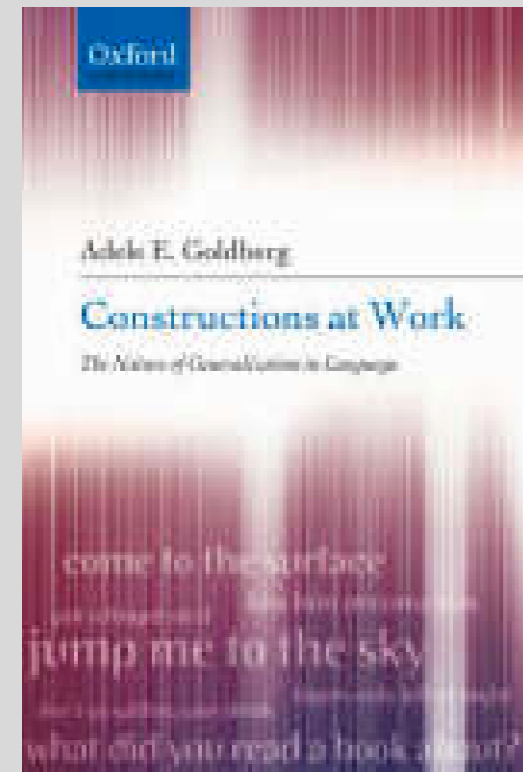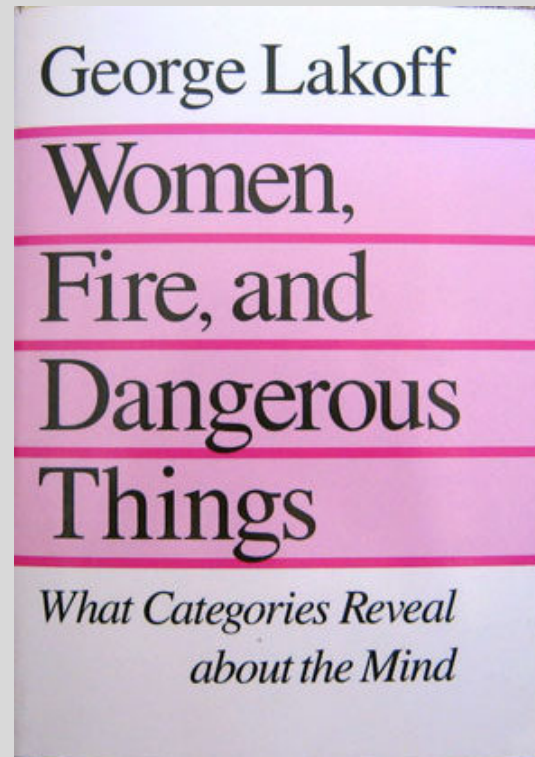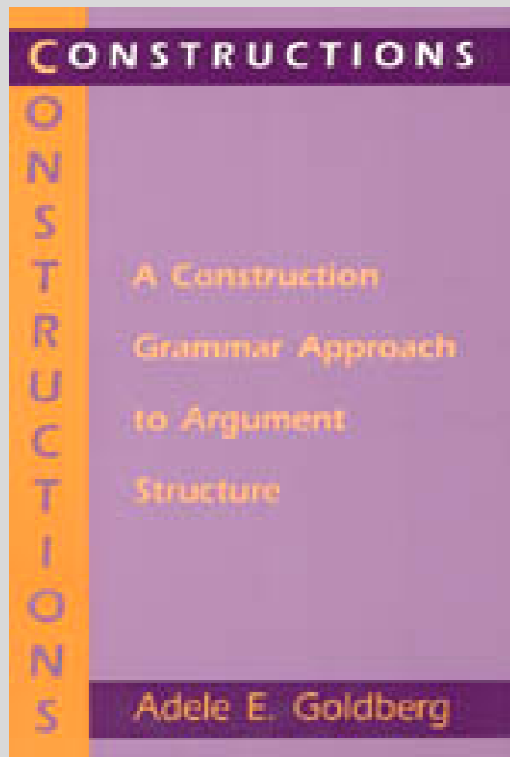
Construction Grammar

Charles Fillmore

Paul Kay

George Lakoff

Adele Goldberg

Construction Grammar

Construction Grammar

Construction Grammar

What is a construction?

Construction Grammar

A construction is a complex linguistic sign that combines
a specific form with a particular meaning.

Idioms

Fillmore, C., Kay, P. and O'Connor, M.K. 1988. Regularity and idiomaticity in grammatical constructions: The case of *let alone*. *Language* 64: 501-38.

Nunberg, S., Sag, I.A., and Wasow, T. 1994. Idioms. *Language* 70: 491-538.

Proverbs

(1) An apple a day keeps the doctor away.

(2) The grass is always greener on the other side.

(3) Birds of a feather flock together.

Idioms

Idioms are prefabricated chunks, conventionalized collocations, utterance formulas.

Idioms

(1)
    a.   How are you doing?

    b.   Thank you, I'm fine.

    c.   What can I do for you?

    d.   Get the hell out of here!

    e.   You can't have it both ways.

    f.   Either way is fine.

    g.   Say that again.

    h.   I don't believe what's happening.

    i.   You gotta be kidding.

    j.   No, I'm dead serious.

Idioms

(2)   a.   Why don't you __ .

          b.   I don't know __ .

          c.   Do you mind if __ .

          d.   I am just about to __ .

          e.   Would you please __ .

          f.   __ is not in the position to __ .

          g.   I can't help Ving __ .

          h.   __ never got around to __ .

          j.   That's just about the __ that __ .

          k.   I wonder if __ .

Idioms

The frequent use of prefabricated chunks (i.e. idiomatic expression) is one of the features that distinguishes the speech of native speakers from the speech of second language learners.

[Pawley and Syder 1983]

Idioms

Native-like competence and fluency demands such idiomaticity.

[Nick Ellis 2003]

Idioms

Encoding idioms	Decoding idioms
answer the door *wide awake*	*kick the bucket* *pull a fast one*

Idioms

Encoding idioms	Decoding idioms
answer the door *wide awake*	*kick the bucket* *pull a fast one*
Meaning partly transparent	Meaning completely opaque

Idioms

Grammatical idioms	Extragrammatical idioms
kick the bucket *spill the beans*	*all of a sudden* *by and large*

Idioms

Grammatical idioms	Extragrammatical idioms
kick the bucket *spill the beans*	*all of a sudden* *by and large*
Semantically irregular but syntactically regular	Semantically irregular and syntactically irregular

Idioms

Idioms with pragmatic point	Idioms without pragmatic point
Good morning. See you later. Once upon a time. Him be a doctor?! How are you doing?	All of a sudden. Either way is fine. That's just about the __ that __ You can't have it both ways. Say it again.

Idioms

Idioms with pragmatic point	Idioms without pragmatic point
Good morning. *See you later.* *Once upon a time.* *Him be a doctor?!* *How are you doing?*	*All of a sudden.* *Either way is fine.* *That's just about the __ that __* *You can't have it both ways.* *Say it again.*
Tied to a specific pragmatic context	Not tied to a specific pragmatic context

Idioms

Substantive idioms	Formal (schematic) idioms
It takes one to know one.	The __ the __ .
> *It took one to know one.	__ let alone__ .
	Why don't you __ ?
So far so good	__ never got around to __ .
>*So far so bad.	

Idioms

Substantive idioms	Formal (schematic) idioms
It takes one to know one. *> *It took one to know one.* *So far so good* *>*So far so bad.*	*The __ the __ .* *__ let alone__ .* *Why don't you __ ?* *__ never got around to __ .*
Lexically filled and grammatically invariable	Partially filled by lexical items and partially variable

Idioms

Hypothesis:

Idioms are fixed irregular expressions that are learned and memorized like words.

Idioms

(1)   He kicked the bucket.

(2)   *The bucket was kicked.

(3)   *They kicked the buckets.

(4)   He will kick the bucket.

(5)   ?He had kick the bucket.

Let alone

Idioms

(1)   a. We'll need **shrimp and squid**.

        b. Max won't eat **shrimp, let alone squid**.

(2)   a. I want to **cook the shrimp and clean the squid**.

        b. Max won't **touch the shrimp, let alone clean the squid**.

Idioms

(3)   a. Bill will drink beer and whisky.

        b. Bill **won't** drink beer and whisky.

(4)   a. *Bill will drink beer let alone whisky.

        b. Bill **won't** drink beer let alone whisky.

Idioms

(5) a. Shrimp and squid, John won't eat.

b. *Shrimp let alone squid, John won't eat.

(6) a. Shrimp, John won't eat, let alone squid.

b. *Shrimp, John won't eat and squid.

Idioms

(7)   a. Max won't eat shrimp but Minnie will.

          b. *Max won't eat shrimp let alone Minnie will.

Idioms

Conclusion:

Idioms have both idiosyncratic properties that must be memorized and general grammatical properties that characterize 'regular' grammatical expressions.
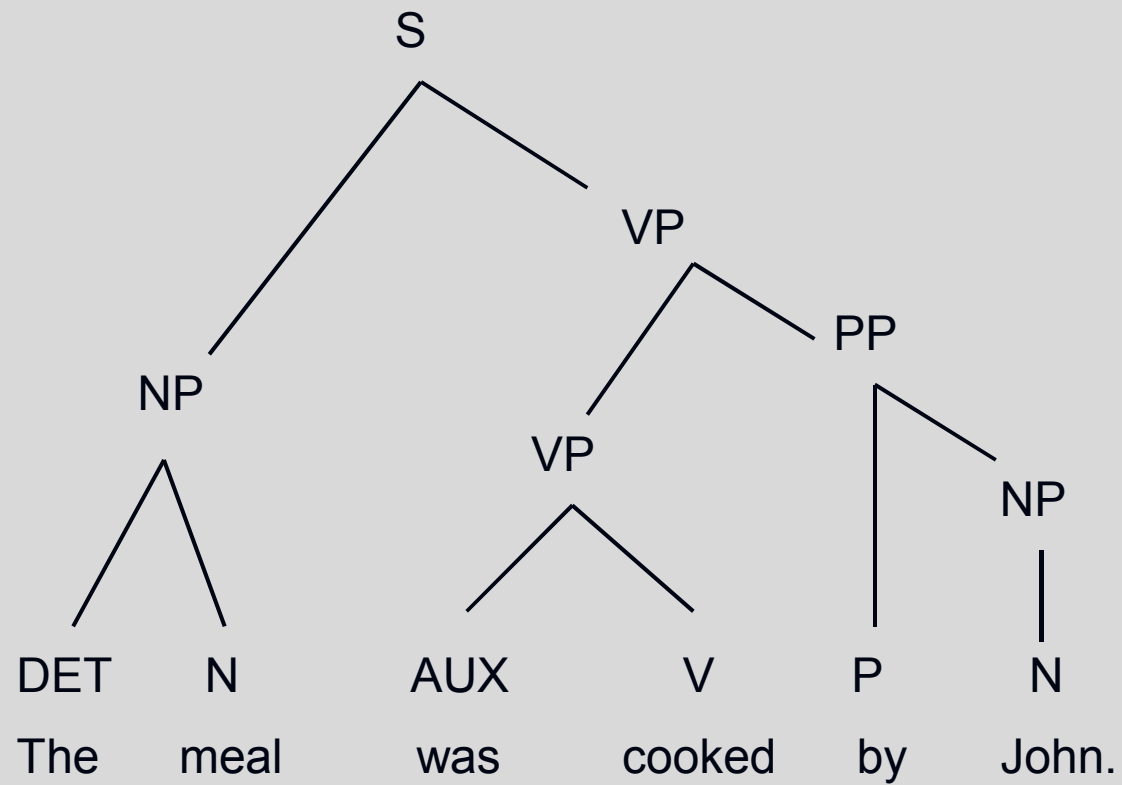
What's left?

Are there fully regular grammatical expressions?

Passive

(1)   The meal was cooked by John.

Passive

Passive

- The subject functions as patient rather than actor.

- The verb occurs in a particular form (be + past PTC).

- The by-phrase has a particular function/meaning.

There is no principled difference between idiomatic constructions and regular grammatical constructions

Caused-motion construction

(1) She dragged the child into the car.

(2) He wiped the mud off his shoes.

(3) She forced the ball into the jar.

(4) He pushed the book down the chute.

Form: SU V DO PP

Meaning: <X causes Y to move somewhere>

Caused-motion construction

Where does the meaning come form?

Traditional view: The meaning of the construction is derived from the meaning of the words it includes.

Caused-motion construction

Verbs: drag x into

wipe x off

force x into

push x down

causative + motion

Caused-motion construction

(1)   She sneezed the napkin off the table.

Caused-motion construction

The caused motion construction is idiosyncratic in that it evokes a construction-specific interpretation.

The meaning of the construction is more than the meaning of its components.

The construction as a whole has a particular meaning.

Resultative construction

(1)   Peter meeked the bleek dizzy.

<X changes Y in such a way that Y becomes Z>

Conclusion

There is no principled difference between idioms and grammatical constructions:
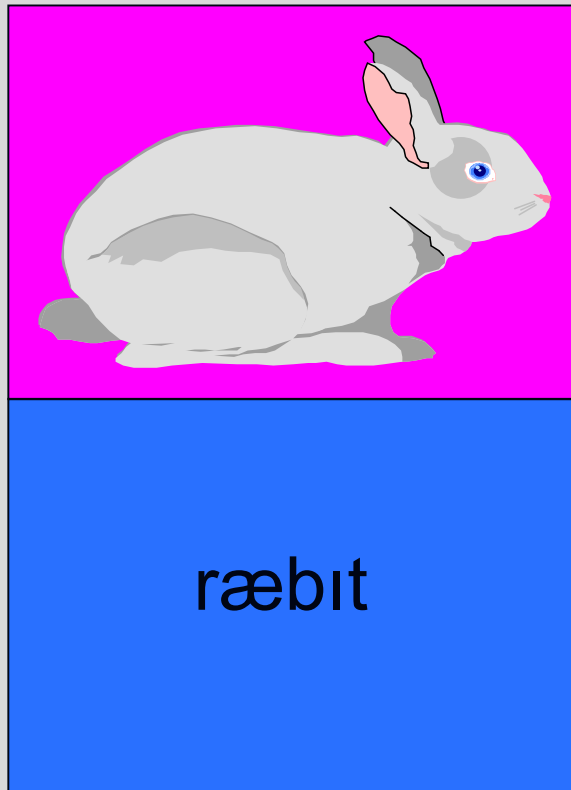
Both involve regular and idiosyncratic properties.

If constructions include idiosyncratic properties they must be stored and memorized like words.

Conclusion

A construction is a complex linguistic sign that combines a specific form with a particular meaning.

Linguuistic sign

Conclusion

Constructions are ‚big words'. (Dąbrowska 2000)

Passive construction

X is affected by Y

| SUBJ | be | V-ed | by PP |

Caused motion construction

X causes Y to move somewhere

| SUBJ | V | OBJ | PP |

Resultative construction

X affects Y so that it turns Z

SUBJ   V   OBJ   ADJ

Construction Grammar

If grammatical units are linguistic signs, grammatical categories may be of the same type as words.

Gramatical categories

How is the category 'subject' represented in mental grammar?

-> Is the subject a category of non-linguists?

Subject

- The subject is the NP before the verb.
- The subject agrees with the verb.
- Pronominal subjects occur in nominative case.
- The subject functions as controller of participle adverbial

Subject

(1)   Peter met Mary.

(2)   John hates country music.

(3)   He likes this picture.

(4)   Watching TV he did not noticed Jane.

Subject

(1) Peter walked down the street.

(2) The man kicked the ball.

(3) The dog was barking.

Subject = agent

Subject

agent

NP_{NOM} (V …)

Subject

The subject precedes the verb:

 (1) Yesterday, Peter met Mary.

 (2) Across the bridge lived an old man.

Subject

The subject agrees with the verb in third person.

      (1)   Peter likes bananas.

      (2)   There are my shoes.

Subject

The subject occurs in nominative case.

  (1) He(*him) is a teacher.

  (2) Him be a doctor!

Subject

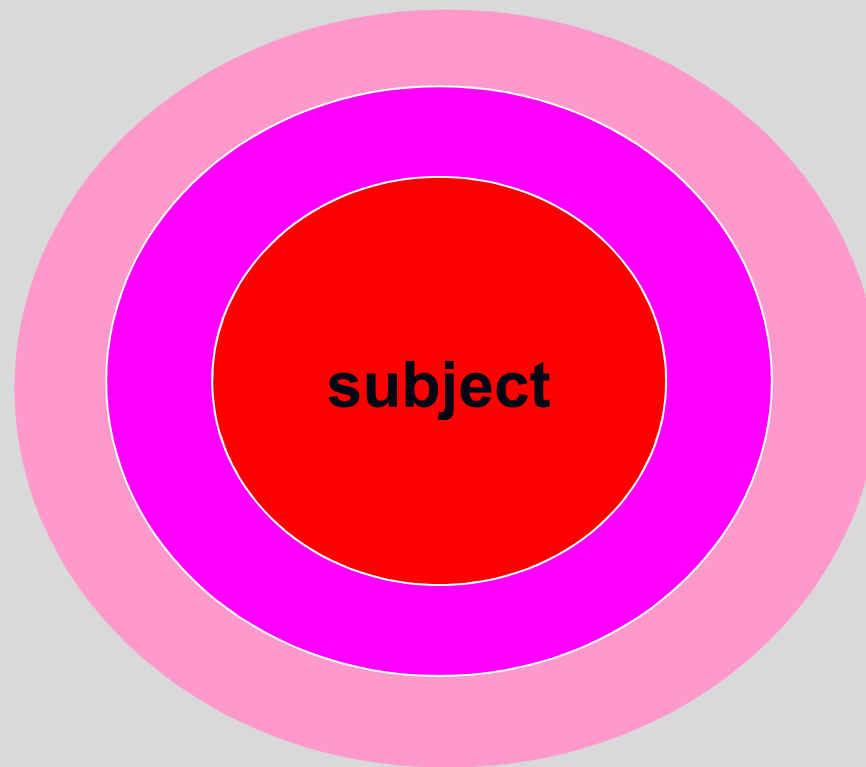The subject controls the actor of the omitted subject of participle adverbial clauses and coordinate sentences.

     (1)   Entering the room, Peter saw Mary.

     (2)   The conference closed, we left London.

Subject

The subject functions as actor.

    (1)   Peter kicked the ball.

    (2)   The ball was kicked against the wall.

    (3)   The bomb exploded.

Subject

subject

Transitive construction

X is acting on Y

SUBJ   V   OBJ

Subject

(1) a. Peter kicked the ball.   [activity vs. psych]

    b. Peter likes bananas

(2) a. Peter is eating it up.   [telic vs. atelic]

    b. Peter is eating it.

(3) a. I write your name.   [+/-volitional]

    b. I forgot your name.
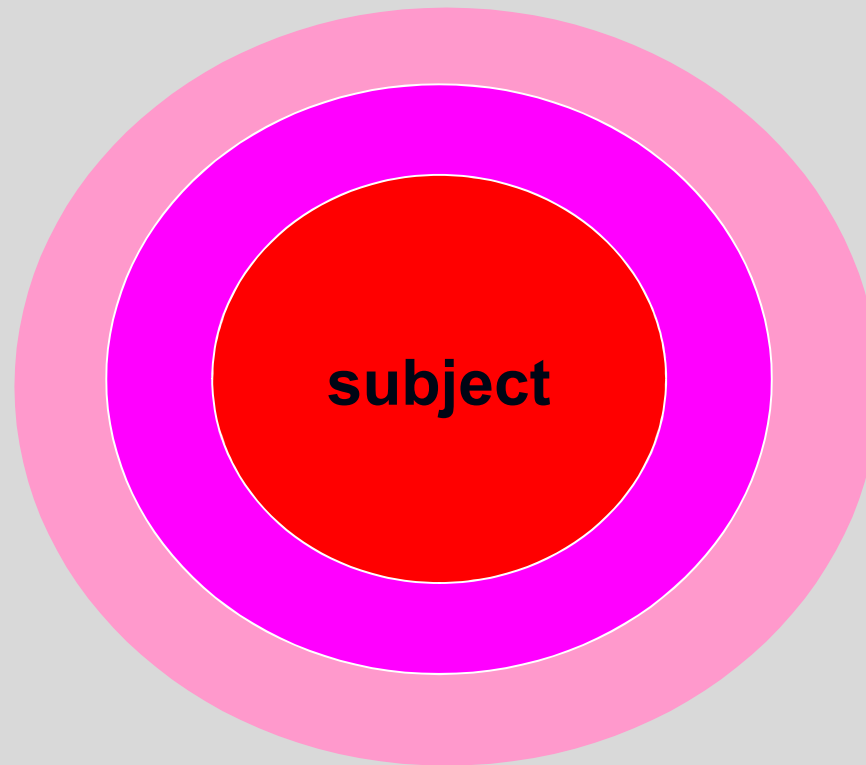
Hopper & Thompson 1984

Subject

(4) a. I kicked the ball.   [+/-punctual]

  b. I was kicking the ball.

(5) a. I drank the beer.   [+/-countable]

  b. I drank some beer.

(6) a. I kicked the ball.   [+/-negative]

  b. I didn't kick the ball.

Hopper & Thompson 1984

Subject

subject

Genitive

Peter's car

Genitive

(1) Peter's car

(2) John's hand

(3) John's train (to London)

(4) the secretary's computer

(5) the dog's bone

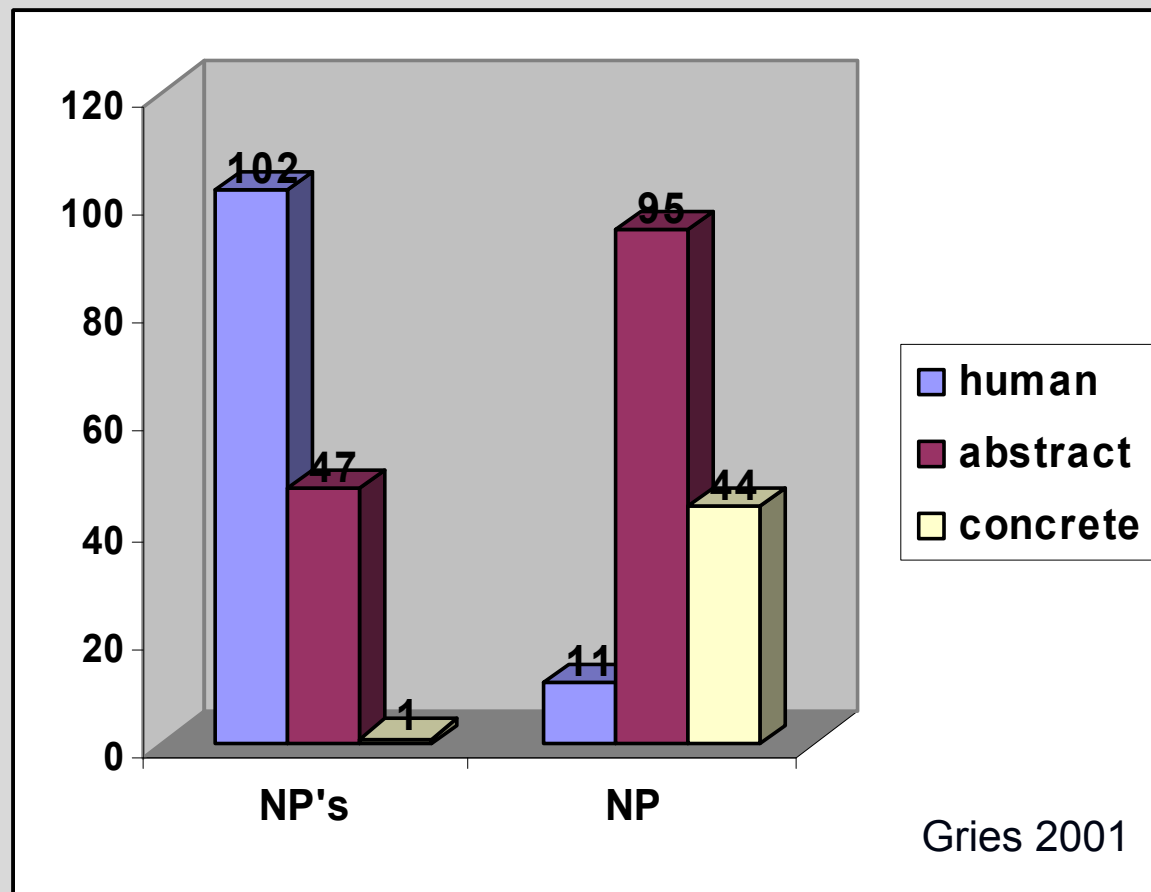(6) the car's door

(7) the play's final act

Genitive

(1) John's photograph

1. the photograph that John owns
2. the photograph that John took
3. the photograph that depicts John

Genitive

1. NPs referring to abstract entities
2. NPs referring to concrete entities
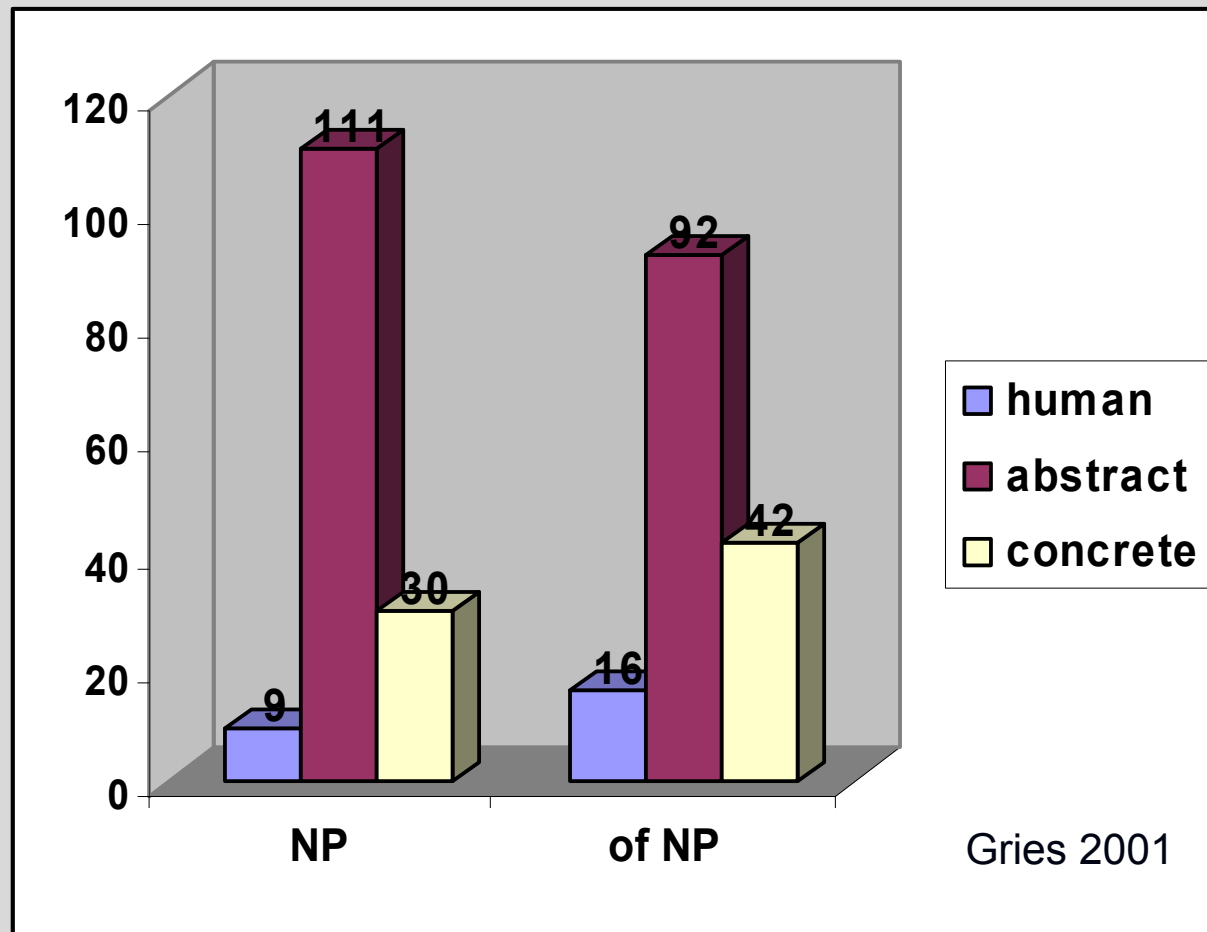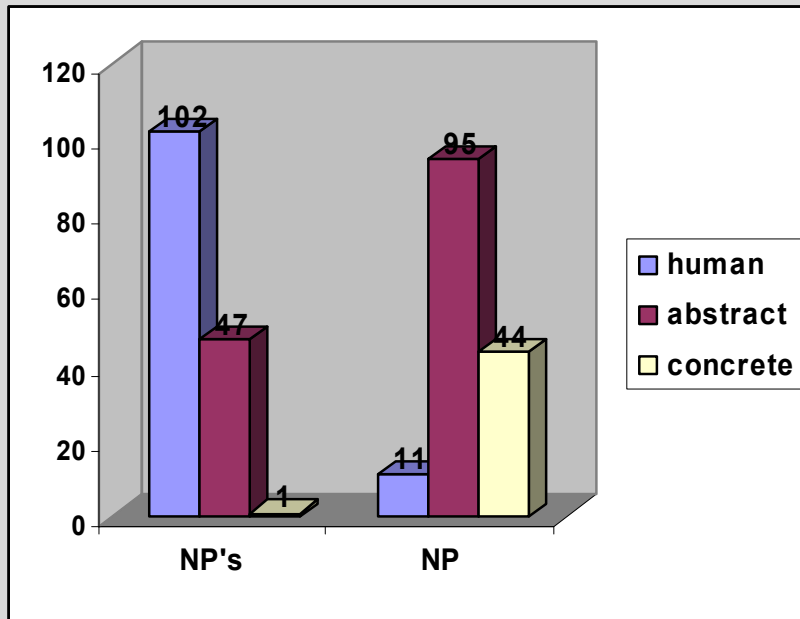3. NPs referring to humans

Genitive

Gries 2001

Genitive

(1) a. my father's car

        b. the car of my father

(2) a. the student's name

        b. the name of the student

Genitive

Gries 2001

Genitive

s-genitive

   1. Human's concrete   Peter's car

   2. Human's abstract   Peter's idea

of-genitive

   1. Abstract of abstract   the foundation of the theory

   2. Abstract of concrete   the consequence of the accident

   3. Concrete of concrete   the roof of the house

Collostructional analysis

Collostructional analysis is a corpus-linguistic method that measures the associations between words and constructions.

Gries and Stefanowitsch 2003, 2004

Collostructional analysis

Collexemes

Collostruct
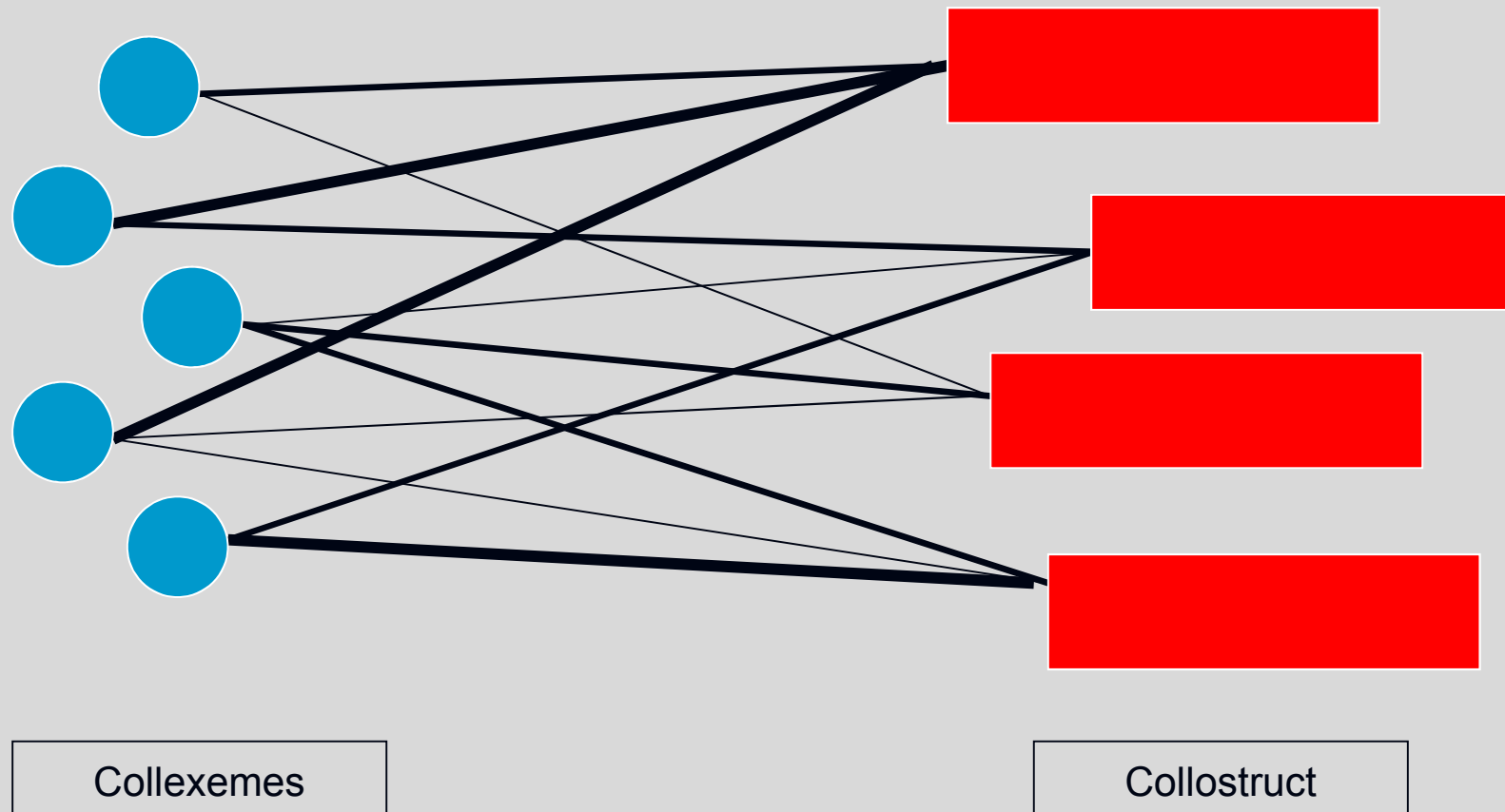
Double object vs. *to*-dative

(1) a. Peter gave the dog a bone.

   b. Peter gave the bone to the dog.

Double object vs. *to*-dative

	Double object	To-dative
give	461	146
send	213	314
tell	98	32
bring	5	27
offer	34	22

Double object vs. *to*-dative

(1)   a. I lend Peter the book.

   b. I lend the book to Peter.

Double object vs. *to*-dative

	Double object	To-dative
lend	85	102

Double object vs. *to*-dative

	Double object	To-dative
lend	85	102
other verbs	574	1.773

Double object vs. *to*-dative

	Double object	To-dative	Total
lend	85	102	187
Other Vs	950	1517	2.467
Total	1.035	1.619	2654

$$\text{Expected frequency} = \frac{x \times y}{\text{total}}$$

Double object vs. *to*-dative

	Double object	To-dative	Total
lend	85 (73)	102 (114)	187
other Vs	950 (962)	1517 (1504)	2.467
Total	1.035	1.619	2654

Double object vs. *to*-dative

Double object	
Collexeme	**Strength**
Give	1.84E-120
Tell	8.77E-58
Show	8.32E-12
Offer	9.95E-10
Cost	9.71E-09

Double object vs. *to*-dative

Double object		To-dative	
Collexeme	**Strength**	**Collexeme**	**Strength**
Give	1.84E-120	Bring	1.47E-09
Tell	8.77E-58	Send	1.46E-06
Show	8.32E-12	Take	0.00002
Offer	9.95E-10	Pass	0.00002
Cost	9.71E-09	Make	0.0068

Conclusion

- Grammar consists of constructions (i.e. complex linguistic signs).

- Linguistic signs are prototype categories.

- The prototype of a construction is characterized by the meaning of words that are strongly associated with a construction.

Questions

- Constructions have been characterizes as 'big words'. What does that mean?

- Explain in which sense 'regular' constructions such as passive sentences (e.g. *The door was opened by Jane*) or resultative sentences (e.g. *Joe pushed the door open*) are similar to idioms such as *He kicked the bucket*.