Comedian Dane Cook, telling a funny story:

Those cops in Florida are in trouble. They shot at a guy eleven times because they claim the guy had a grenade. The guy was actually eating a pear! How do you screw that up? Unless he was eating a pear like...

"unless he was eating a pear like <khkhwhw, brragghh>!"
• The degree to which communication is simultaneously audible and visible (for people who can hear and see)
• Contrast the bias towards written language in linguistics (Linell 2005)
  – implicitly monomodal view of language
  – sentence-based (versus based on intonation units)
• What about speakers’ gestures?

Contrast: The formal view of language

  – “The articulatory and perceptual systems, for example, require that expressions of the language have a linear (temporal, ‘left-to-right’) order at the interface” (Chomsky 2007: 65)
  • sequential
    – e.g., we don’t pronounce two morphemes at the same time

Speakers’ gestures

• In every known culture, speakers gesture (at least some of the time)
  – in ways coordinated with speech
• Speech and gesture production are linked
  – behaviorally
  – cognitively (Krauss et al. 2000; McNeill 1992)
• In what ways do gestures relate to
  – the lexicon?
  – grammar?

• Lexico-grammar in speech and writing as
  – sequential
  – analytic (segmental)

  • Gesture as
    – not sequentially structured very much
      • often simultaneous (overlapping) with speech
      – global, wholistic imagery
• Gesture as
  – not sequentially structured very much
    • often simultaneous (overlapping) with speech
  – global, wholistic imagery

Adaptation of “Kendon’s Continuum”
status as conventional signs

→ emblems

recurrent gestures

more idiosyncratic gestures
(‘gesticulation’)

(see Kendon 1988; McNeill 1992, 2005; www.togog.org)

**Emblems**

• Standardized form/meaning relationship
• Have fixed symbolic status within a culture
• Intentionally used

**Emblems** (Efron 1941)
Adaptation of “Kendon’s Continuum”
status as conventional signs

emblems

→ recurrent gestures

more idiosyncratic gestures
(‘gesticulation’)

(see Kendon 1988; McNeill 1992, 2005; www.togog.org)

Recurrent gestures
(Bressem & Müller 2014)

• Recurring group of forms, with limited variations

• Recurring set of related meanings

Dane Cook on ‘cheating’ in a relationship

“and I’ll tell you something right now. I’m telling you/, no matter what– even the message I just gave you, ...”

Stretched index finger held vertical
➔ attention
(Bressem & Müller 2014)
Palm down, open hand, movement from center to sides → negation (Calbris 2003; Harrison 2009)

"without making any movements, without waking them whatsoever."

Adaptation of “Kendon’s Continuum”

status as conventional signs

emblems + recurrent gestures

more idiosyncratic gestures (‘gesticulation’)

(see Kendon 1988; McNeill 1992, 2005; www.togog.org)

Recurrent gestures

More idiosyncratic gestures

"and I could just see, that their connection, that they had"
More idiosyncratic gestures

“you go. you cheat.
you do your cheat thing.”

More idiosyncratic gestures
(more context-dependent meaning)

“their connection”
“your cheat thing”

• They are not conventionally linked to
a particular meaning, but understood
by virtue of:
  – Iconicity
  – Verbal context

How can we (linguists) handle the complex
relation between spoken language and
gesture?
Let’s take one particular theory of grammar:

status as conventional signs

emblems
recurrent gestures
more idiosyncratic gestures
(‘gesticulation’)
Cognitive Grammar

• Lexicon and grammar form a continuum consisting in assemblies of symbolic structures

Construction Grammar

• No strict distinction between syntax and lexicon (continuum)
  – Both of them are constructions, only differing in terms of degree of abstraction and complexity
    (Fillmore 1988; Croft 2001; Goldberg 1995, 2006; etc.)
Properties of gesture in relation to grammatical distinctions (a proposal)

- Degree of **conventionality** of symbolic status
- Degree of **schematicity** of representation
- Gesture **movement quality**

Verbal structures

- **Schemacity**
  - Class Descriptions (phonologically schematic)
  - Markers (phonologically specific)
- **Symbolic Complexity**
- **Rules**
- **Grammatical Lexicon**

Gesture types

- **Schemacity**
  - Gesticulation
  - Recurrent gestures
  - Emblems
- **Symbolic Complexity**

References:

- Langacker 2008: 21
- Kok & Cienki (under review)

(Kasper Kok’s PhD project on gesture in relation to Cognitive Grammar and Functional Discourse Grammar)
Relation to grammar

Analysis of 20 interviews from “The Ellen DeGeneres Show”

From Suwei Wu’s PhD project on the relation of gesture to transitivity and grammatical constructions

Gestural modes of representation

enacting
re-enacting an everyday activity

holding
showing the shape of an object

tracing
outlining the shape of an object

embodying
transforming itself into an object

(Müller 1998, 2013)

He’s trying to unscrew the mike
He’s a domestic cat

Intransitive verb (X came)

Transitive verb (X did Y)

It all came out. Of him.

He’s trying to unscrew the mike

Copula (X is)

Different Modes of Representation
(Müller 1998, 2013)
Properties of gesture in relation to grammatical distinctions (in relation to verbs) (a proposal)

• Degree of **schematicity** of representation – how the Mode of Representation is used (correlation with transitivity types?)
  – detailed
    • e.g., enacting (and transitive actions)
  – schematic
    • e.g., tracing path (and intransitive motion event)
    • e.g., holding (and object oriented gestures with copula)

• “Aspects are different ways of viewing the internal temporal constituency of a situation” (Comrie 1976: 3)
  – English progressive vs. non-progressive
    (was doing vs. did, has been doing vs. has done)
  – Russian несовершенный vs. совершенный вид
    (делал vs. сделал буду делать vs. сделаю)

Properties of gesture in relation to grammatical distinctions (in relation to verbs) (a proposal)

• Degree of **conventionality** of symbolic status
• Degree of **schematicity** of representation
    • Gesture **movement quality**

Aktionsarten
(Vendler 1967)

• **Accomplishment** - durative, telic
  e.g. delivered the baby, baked the pizza

• **Activity** – durative, atelic
  e.g. ran, laughed, watched

• **Achievement** – non-durative, telic
  e.g. fell asleep, stumbled, cut
“Aspects are different ways of viewing the internal temporal constituency of a situation” (Comrie 1976: 3)
— e.g., Accomplishments, Activities, Achievements

— Speech and gesture arising from the same idea units or “growth points” (McNeill 1992)
— Gestures as enacting mentally simulated actions (Hostetter & Alibali 2008)

— Is there aspect in gesture?

Aspect Study 1

— Project developed in workshop on Empirical Methods in Cognitive Linguistics (EMCL) in Freiburg, Germany in 2011


Becker et al. (2011) production study

— 5 pairs (10 participants) in English
— Elicited narratives of different types
  — Tell about a time when you had difficulty in one of these situations:
    • dealing with bureaucracy, ordering dinner in a foreign country in a foreign language, or falling asleep
  — Tell about a time when you witnessed or experienced one of these situations:
    • an accident, winning a sporting event, a surprise party, or someone doing a good deed

Results

— Primary difference:
  • salient pattern of gestures accompanying Achievements verbs (non-durative verbs)
    • punctual nature
  • no such punctual nature with the verbs expressing Accomplishments or Activities
• Gesture **movement quality**
  (? correlation with aspectual qualities ?)

Comprehension study (Becker et al. 2011)

• Does it matter for comprehension of video clips with ‘Achievement’ utterances if you see gestures that match them or not?

Method – comprehension study

• 26 Participants
• 28 videos
• 14 Match & 14 Mismatch

Match

jumped on the tracks
Mismatch

jumped on the tracks

Results

• A reliable effect of condition: match >> mismatch
• The experiment showed a sensitivity to the mismatch of duration gesture in achievement-verb environments
• In other words:
  • If speech is accompanied by gesture and both communicative streams convey compatible event structures, comprehension is facilitated

If languages marks these categories differently, do speakers of the languages gesture differently when talking about different kinds of events?

What about languages like:
• French (imparfait vs. other past tenses)

• German (many types of Aktionsarten expressed with prefixes: ver-, weg-, wieder-, etc.)

• Russian (perfective vs. imperfective grammatical aspect; and Aktionsarten with affixes: по-, вы-, пере-, -нуть, etc.)

Aspect Study 2

International research grant from the Russian Science Foundation (2014-16)
Team from Russia (Moscow State Linguistic U.):
  I. Khaleyeva, O. Iriskhanova, M. Tomskaya
  E. Karpenko, V. Denisova, A. Petrov
Team from abroad:
  A. Cienki (Netherlands), principle investigator
  A. Morgenstern, D. Boutet (France)
  C. Müller, R. Becker, M. Gonzalez-Marquez (Germany)
Aspect Study 2

• Elicited narratives like those in Aspect Study 1 in
  – France (in French)
  – Germany (in German)
  – Russia (in Russian)
• 10 pairs (20 participants) for each language
• approx. 10 minutes of talk per pair
  = 100 min. per language
Properties of gesture in relation to grammatical distinctions (in relation to verbs) (a proposal)

- Gesture **movement quality**
  (correlation with aspectual qualities?)
  - e.g., bounded or unbounded event?
  - relation to physiological properties of gestures?

Properties of gesture in relation to grammatical distinctions (in relation to verbs) (a proposal)

- Degree of **conventionality** of symbolic status
- Degree of **schematicity** of representation – how the Mode of Representation is used
  - (correlation with transitivity types)
- Gesture **movement quality** – how the gesture is produced
  - (correlation with aspectual qualities?)
  - embodied expression of construal of event
Maybe this is an old-fashioned view of Gesture and Language:

- Idiosyncratic
- Gradient
- Holistic
- Not countable
- Non-combinatoric
- Context dependent

Gesture

- Conventional
- Discrete/categorical
- Linearly/dually structured
- Countable (morphemic)
- Combinatoric
- Less context dependent

Language

(courtesy of S. Wilcox)

Gestue and Language as Classical Categories:

- Idiosyncratic
- Gradient
- Holistic
- Not countable
- Non-combinatoric
- Context dependent

Gesture

- Conventional
- Discrete/categorical
- Linearly/dually structured
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Language

The problem of the classical category view of language:

- Phonemes
- Morphemes
- Syntactic structures
- Semantics
- Intonation
- Gesture

Language in general, and any given language

Classical category view of language:

- Phonemes
- Morphemes
- Syntactic structures
- Semantics
- Intonation
- Gesture

Language in general, and any given language
• Compare the role of gesture in sign language (жестиккуляция в языке жестов):
  – determining whether any combination of behaviors in a particular usage event of communication is “language” or “gesture” is a matter of categorization by users in that event (Sherman Wilcox and colleagues)

• Categories are “a matter of both human experience and imagination — of perception, motor activity, and culture” Lakoff (1987: 8)

• Direct speech is used with co-verbal behaviors indicating viewpoint switch
   – “Fictive interaction” (Pascual 2014)
   – Compare indirect speech in languages without a written tradition (Kombai [West Papua, New Guinea])

   Ya mimono karubuma no koro jenemora
   They all be astonished 3PLNPUT he how
   ma-khe-y-e-ne
   do.3SG.NF-Q-TRAN-CONN-QUOT.3SG
   Lit. “They were all astonished that: “how did he do this?”
   “They were all astonished because of the things he did”

   (de Vries 1993: 98)

Conclusions

• Language as a category which overlaps with other semiotic modes & codes to varying degrees, along various time scales, and variably by context
Conclusions

• Rather than “language” and “gesture”
  Kendon (2004) proposes the terms:
  – utterance-dedicated audible bodily action
  – utterance-dedicated visible bodily action

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