Psychology and Linguistics 1914 - 2013

• Psychologists often don’t pay enough attention to the results of linguistic science.
• But often they pay too much attention.
• And conversely….
• The larger goal is an integrated language science.
• Today’s (20 minute) talk is a conceptual snapshot of how
• Psychology has influenced linguistics
• And how linguistics has turned the tables….
• Or has it?
What every linguist knew about psychology just before 1924

• And just after…. 
• Some claims of language science that are critical for an integrated understanding of language.
• The role of intuitive knowledge in linguistics
• The role of derivations relating inner to outer forms
• The role of grammar as defining what language is
To everything a season…..

(Turn, turn, turn….)

• Founding year of the LSA was the turning point
• From eclectic mentalism/rationalism
• To wannabe structuralist behaviorism
• We live with legends and fairytales…. 
• It is hard to believe how dominant physicalist behaviorism was…. 
• But this legend/fairytale is true.
Early Bloomfield textbook, 1914

An explicit exegesis of Wundt, ca. 1900…. Hierarchical organization, binary, phrasal categories. Inner forms determine actor/predicate/patient/modifier. Inner form maps onto outer form by transformations. Caesar crossed the rubicon; the rubicon was crossed by Caesar; Caesar’s crossing the rubicon happened….. That is, there are derivations from inner to outer form. And all these processes are recursive. The sentence is defined by native speaker’s intuitions. (Do all these 1900 ideas….sound familiar?)
Bloomfield’s first text, 1914 – some details

• Full range of psychobiological issues involving
• Language structures
• Language evolution
• Language learning
• Language and semantics
• Language and consciousness
• Intuitions everywhere
• De facto derivations, but mostly in morphology.
• Linguistics defines what language is, not its use.
Where did rationalist mentalism go?

• Why did Wundt’s deep (and modern) ideas,

• with Bloomfield’s English exegesis of them,

• (and with Sapir’s deep (and modern) ideas….)

• Die

• just as the LSA began?
The Behaviorist interdiction: (the bells tied back)

• Pavlov: classical conditioning (meat->ding->drool)
• Today cognitive scientists study what human-like behaviors animals can learn (for biological perspective)
• But following Pavlov’s salivating dogs, the question became: what animal-like behaviors can humans learn
• John Watson and Little Baby Albert
• Conditioned phobia against rats: (ucs: whacked bar behind Albert)(cs: a friendly white rat)
• Albert generalized it to fuzzy white things
• And grew up a bit neurotic about FWTs.
Thus, “psychology” became the study of acquiring arbitrary associations:

- *If it can’t be learned, it can’t be real*

- *It can be learned only from observation*

- *All we can see overtly is association*

- *So, the stuff of inner life (if it is inner at all) is associative*
HOW DOES THE CHILD GET FROM HEARING ITS OWN BABBLING.....
HOW DOES THE CHILD GET FROM HEARING ITS OWN BABBLING..... TO NAMING?
IT HEARS A MODEL WHILE BABBLING
IT SEES AN OBJECT WHILE HEARING AND BABBLING: CONNECTS VISION, SOUND & SPEECH
SO....HOW DOES THE CHILD GET FROM hearing its own BABBLING..... TO NAMING?
DA

DOLL

VOI...
VOI...LA!
Weiss and Bloomfield’s conversion

• Weiss: Linguistics should adopt behaviorist principles to become a sound science – in first issue of Language – just as LSA is being founded.

• Bloomfield bought it….first an LSA lecture and then…

• Postulates for a scientific study of Language
  • no evolution, or learning, just discovery procedures
  • (1933) Meaning is blatantly S-R: a “meaning” is the totality of response patterns to an utterance
  • (1933) Syntax = favorite “construction types”
  • Definitely no intuitions!
What is grammar for?

- Wundt – Bloomfield, 1914….
- Describes what language is.
- “God’s Truth” Linguists

- Bloomfield, 1926, 1933, Hocket, Harris, etc.
- Describes arbitrary discovery procedures
- “Hocus Pocus” Linguists
Purging the old Introspectionism

• Rumor1: Bloomfield asked Holt, the publisher of his first book, to stop.
• Rumor2: Bloomfield asked university libraries to remove first book, and replace it with his later book.

• If you don’t believe these rumors
• Try to find the book in your library
Turning to modern times
Syntactic recursive derivations
set problems for cognitive science to explain

• Wundt…..(from basic themes to surface hierarchies)
• Harris (Co occurrence transformations - ordered)
• Syntactic Structures (Generalised transformations)
• Aspects (super P-marker)
• Surface Interpretivism (derive the logical form)
• Government and Binding (Move alpha, and filter)
• Soidisant ”Minimalism” – (the merges, phases)
Most important: What is grammar for?

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- (Jakobson?) Halle, Chomsky, ff.
- **Biolinguistics** - the three sources of universals…. (God is optional)
BUT: *(Turn, Turn, Turn...)*

Re emergence of non-derivational models

- Connectionist models (no rules at all)
- Lexicalism (it’s words all the way down)
- Autolexical grammar (at least for word building)
- Construction Grammars (favorite sentence types)
- Simpler syntax (tweaked hierarchies do it all)
- Unification Grammar (no movement as such, but it swings both ways)
And Where She Stops, Nobody Knows…. Enduring Questions From Bloomfield 1914

- Language science claims for psychological study
- The role of **intuitive knowledge** in linguistics
- The role of **derivations** relating inner to outer forms
- The role of grammar as defining **what language is**

- What every linguist knew in 1924
- And just after….
- Round and Round it has gone
- And round and round it goes
Psychology and Linguistics

• Psychologists often don’t pay enough attention to the results of linguistic science.
• But often they pay too much attention.
• The larger goal is an integrated language science.
• Today’s (20? minute) talk was a snapshot of how….
• Psychology influenced linguistics
• And how linguistics has set problems for psychology