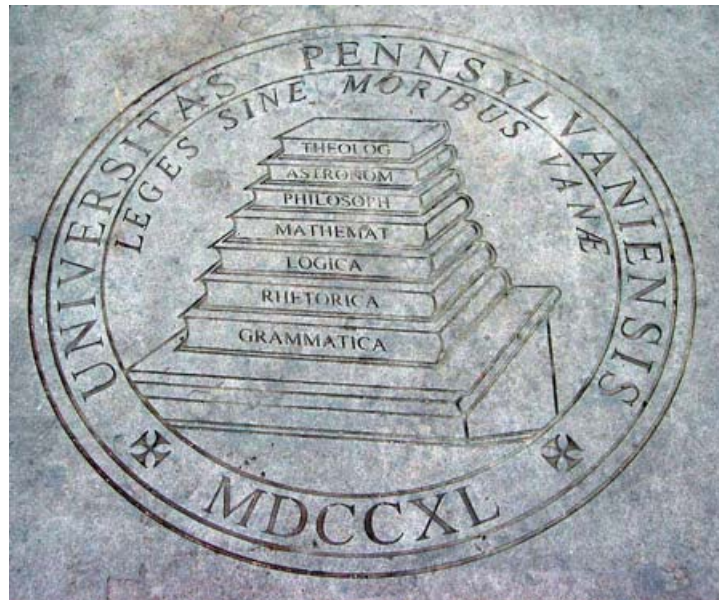


# The Future of Linguistics



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# A bibliographical aside

Earlier versions of this talk were given  
a decade ago at the 50<sup>th</sup> anniversary celebration  
of the Michigan Linguistics Department,  
and at a Stanford colloquium in 2005.

# A terminological aside

***linguistics*** is ambiguous:

1. “pertaining to rational inquiry into questions of speech and language”
2. “the institutions of academic linguistics”
3. “what people identified as linguists do”

I’ll use “linguistics” in sense (1),  
and say “the discipline of linguistics”  
when I mean (2) or (3).

Note that this is sometimes anachronistic

(since the term *linguistics* was not used before the mid 19<sup>th</sup> C)

and usually misleading

(since most linguistics these days is not done by “linguists”)

## OED:

**1837** WHEWELL *Hist. Induct. Sci.* (1840) I. p. cxiv, We may call the science of languages linguistic, as it is called by the best German writers.

**1870** LOWELL *Study Wind.* 334 Mr. Hooper is always weak in his linguistic.

**1847** in WEBSTER. **1855** in OGILVIE, Suppl. **a1858** S. W. SINGER (Worc.), A work containing a complete chronological account of English lexicography and lexicographers would be a most acceptable addition to linguistics and literary history.

**1875** WHITNEY *Life Lang.* x. 191 A fundamental principle in linguistics.

**1893** LELAND *Mem.* I. 112 The extreme interest which I take in philology and linguistics.

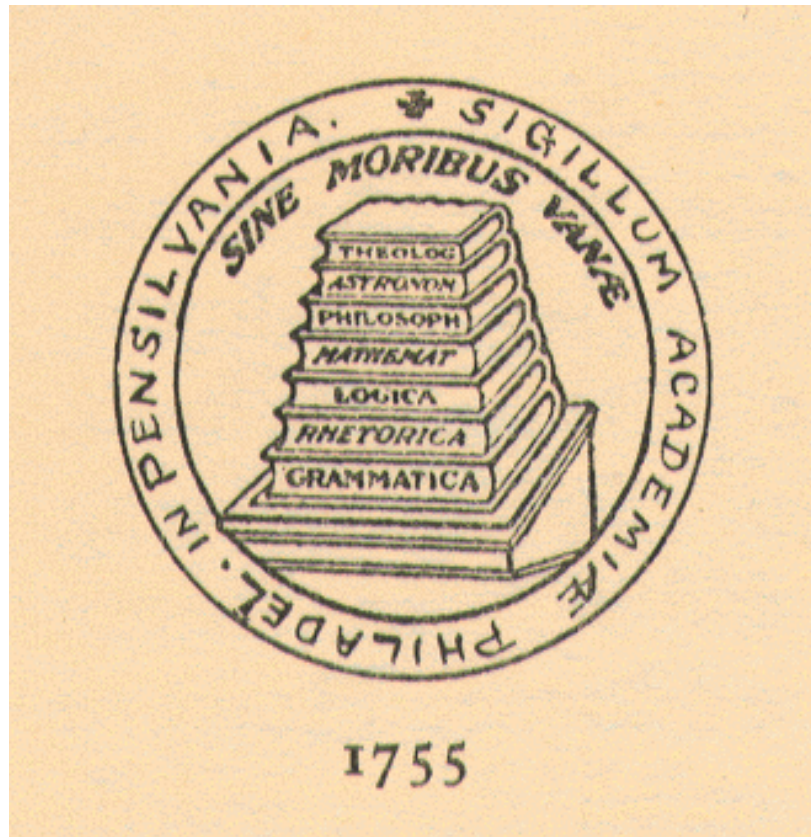
# What happened to linguistics in the poker game of intellectual history?

- Big initial stake
- Good cards
- Almost busted out

# 1700-1850:

## Into the game with a good stake

- Analysis of language was the foundation of education
  - Classical trivium = grammar, rhetoric, logic
  - Enlightenment interest in “philosophical languages”
  - Romantic fascination with
    - National languages
    - Folkloric texts
    - Traditional dialects
- Comparative grammar was hot
  - Leibniz, Peter the Great, Thomas Jefferson...



Benjamin Franklin's choice for the seal of the University of Pennsylvania

# 1850-2000: fate dealt some good cards

- Historical linguistics was a model of success in rational inquiry
  - Darwin hoped to emulate it
  - Philology was **the core of the humanities**
- Linguistic anthropology was a smash hit
  - Broader influence of structuralist ideas
  - Linguistic analysis at **the core of the social sciences**
- The “linguistic turn” in philosophy was huge
  - Logic and/or ordinary language as **the core of philosophy**
- “Generative grammar”
  - was key to the revival of “cognitive” approaches in psychology
  - Linguistics as **the core of cognitive science**
- Language analysis was important in the development of CS
  - Formal language theory
  - Artificial intelligence



...and yet...

# Grammar school is grammarless

- Most American students learn nothing in primary and secondary school about how to analyze speech and language
- Reading is so badly taught that 1/4 to 1/3 of all students can't read well enough to learn other subjects

# Universities are no better

- Only a tiny fraction of American students get useful instruction in language analysis (about 1 in 50?)
  - English students don't know how to scan Shakespeare or Milton (unless they teach themselves)
  - Law students are taught no analytic skills for analyzing the explicit and implicit meaning of words, phrases and discourses
  - Future teachers learn nothing about English pronunciation, orthography, sentence structure, history, or dialect variation
  - Students in fields from psychology to marketing fare no better
- The trivium is no longer trivial – it's out of sight and out of mind.

$$\text{psych} = \alpha \text{ ling}, \quad 5 < \alpha < 50$$

- {"linguistics department"} ~ 33,948 (MSN search)  
{"psychology department"} ~ 260,267 (MSN search)

$$\text{psych} \approx 8 * \text{ling}$$

- Web links to [www.lsadc.org](http://www.lsadc.org) ~ 416  
Web links to [www.apa.org](http://www.apa.org) ~ 4,880

$$\text{psych} \approx 12 * \text{ling}$$

- Intro ling ~ 50K U.S. students/year  
Intro psych ~ 1.5M U.S. students/year

$$\text{psych} \approx 30 * \text{ling}$$

- LSA ~ 4K members  
APA ~ 150K members

$$\text{psych} \approx 38 * \text{ling}$$

Likewise w.r.t. history, chemistry, political science etc.

Psychology is not an order of magnitude  
more interesting, important or useful than linguistics is.

And it should be obvious to any rational being that  
intellectuals need skills in the analysis of language.

So what happened?

# A series of unfortunate events

- Late disciplinary consolidation
  - 1950-1970 instead of 1870-1920
  - like the Kurds,  
linguists were scattered among other nations
- Narrow definition of the field
  - Compare to “big tent” attitude  
of psychology, anthropology, sociology
- Sectarian squabbling in public
- Emphasis on research over teaching
- Little effective lobbying and PR  
on behalf of the discipline

# The problem we face

- The discipline of linguistics is now small, weak and inward-looking
- Public discourse on language and communication is dominated by (often uninformed) non-linguists
- The same is true in other arenas:
  - commerce
  - technology
  - medicine
  - the academy
- Public policy is random or worse

# Is there a solution?

- The current state of ignorance about language among intellectuals is
  - historically unprecedented
  - functionally maladaptive
  - contrary to human nature
- Therefore it will change
- What role will the discipline of linguistics play in this change?
  - Lead?
  - Obstruct?
  - Ignore?



# Things we could do

- Identity politics for linguists
  - Reclaim our history
  - Resettle our intellectual territory
- Build effective institutions
- Start a virtuous cycle of accomplishment and growth

# Reclaiming our history

- Linguistic research  
was at the intellectual (and political) center of
  - the renaissance
  - the enlightenment
  - the romantic eraEven linguists are mostly ignorant of most of this history!
- Central role since then:.
  - Boasian anthropology, linguistic philosophy (1900)
  - Information theory, cognitive psychology (1950)
  - etc.; (*again the history is mostly unknown,  
and certainly untaught!*)

# For example: Jefferson the linguist

- Thomas Jefferson corresponded with many sources to obtain word lists in Indian languages
- Examined and compared the results of Peter the Great's Siberian expeditions
- Benjamin Franklin also collected Indian word lists

How many ages have elapsed since the English, Dutch, the Germans, the Swiss, the Norwegians, Danes and Swedes have separated from their common stock? Yet how many more must elapse before the proofs of their common origin, which exist in their several languages, will disappear? It is to be lamented then ... that we have suffered so many of the Indian tribes already to extinguish, without our having previously collected and deposited in the records of literature, the general rudiments at least of the languages they spoke. Were vocabularies formed of all the languages spoken in North and South America, preserving their appellations of the most common objects in nature, of those which must be present to every nation barbarous or civilised, with the inflections of their nouns and verbs, their principles of regimen and concord, and these deposited in all the public libraries, it would furnish opportunities to those skilled in the languages of the old world to compare them with these, now or at a future time, and hence to construct the best evidence of the derivation of this part of the human race.

Thomas Jefferson,  
*Notes on the State of Virginia*. [Written 1781-82].

# Benjamin Barton

By a careful inspection of the vocabularies, the reader will find no difficulty in discovering that in Asia the languages of the ... tribes of the Delaware-stock may be all traced to ONE COMMON SOURCE. Nor do I limit this observation to the languages of the American tribes just mentioned... HITHERTO, WE HAVE NOT DISCOVERED IN AMERICA... ANY TWO, OR MORE LANGUAGES BETWEEN WHICH WE ARE INCAPABLE OF DETECTING AFFINITIES (AND THOSE VERY OFTEN STRIKING) EITHER IN AMERICAN, OR IN THE OLD WORLD.

## ***New Views of the Origin of the Tribes and Nations of America***

Benjamin Smith Barton M.D., Professor of Materia Medica, Natural History and Botany, in the University of Pennsylvania (1798)

# Barton as proto-Greenberg

My inquiries seem to render it probable, that all the languages of the countries of America may ... be traced to one or two great stocks...

# Jefferson disagreed:

...imperfect as is our knowledge of the tongues spoken in America, it suffices to discover the following remarkable fact. Arranging them under the radical ones to which they may be palpably traced, and doing the same by those of the red men of Asia, there will be found probably twenty in America, for one in Asia, of those radical languages, so called because, if they were ever the same, they have lost all resemblance to one another. A separation into dialects may be the work of a few ages only, but for two dialects to recede from one another till they have lost all vestiges of their common origin, must require an immense course of time; perhaps not less than many people give to the age of the earth. A greater number of those radical changes of language having taken place among the red men of America, proves them of greater antiquity than those of Asia.

Notes on the State of Virginia [Written 1781-82]

**though later,  
J. considered a sociolinguistic explanation...**

Having heard that some Indians considered it dishonorable to use any language but their own, he suggested that when a part of a tribe separated itself, the seceded group might refuse to use the original language and invent their own.

“Perhaps this hypothesis presents less difficulty than that of so many radically distinct languages preserved by such handfuls of men from an antiquity so remote that no data we possess will enable us to calculate it.” [Ms. notes circa 1800]



# Jefferson's plans

- By 1801, he had collected vocabularies for dozens of indigenous languages
  - and began to arrange this for publication “lest by some accident it might be lost”
- He put off publication in 1803
  - due to the opportunity to include the results of the Lewis & Clark expedition

# The sad end of J.'s linguistic career

- His linguistic papers were packed in a large trunk and shipped back to Monticello in 1809 with his other effects
- The trunk was stolen during the trip up the James River
  - The disappointed thieves dumped the contents in the river
  - Only a few items floated to shore and were recovered

# Jefferson to Barton (1809), sent with Lewis' vocabulary of Pani:

It is a specimen of the condition of the little that was recovered. I am the more concerned at this accident, as of the two hundred and fifty words of my vocabularies, and the one hundred and thirty words of the great Russian vocabularies ... seventy three were common to both, and would have furnished materials... from which something might have resulted. Perhaps I may make another attempt to collect, although I am too old to expect to make much progress in it.

# Reclaiming the territory of language

- In research
- In pedagogy
- In clinical applications
- In technology
- In public discourse

Not because these areas belong to our field by right, but because the world needs a field that solves its linguistic problems!

# The chicken and the egg

- Disciplinary growth depends on results
- Results depend on disciplinary growth
- How to get a virtuous cycle started?

# Elements of a plan

- Take an inclusive attitude
  - nothing linguistic is outside the disciplinary tent
  - non-linguists are welcome collaborators
- Focus on undergraduate education
  - determines academic resource allocation
  - 10x increase in enrollments?
- Reform graduate education
  - increase breadth of preparation
  - improve relations with other departments
- Promote and value public policy discussions
- Broaden research profile
  - pluralism but high standards
  - longer half-life of results
  - focus on big issues

# Some research opportunities

- Language description and documentation
  - endangered languages
  - applications in technology and education
  - data publication
    - strengthens the empirical foundations of the field at large
- Reading instruction and remediation
- Models of communicative interaction
  - relevant to psych, anthro and engineering
  - easy & interesting route to student research
  - revolutionized by data publication
    - lowers barriers to entry
    - permits checking and replication of research

# Some interdisciplinary opportunities

- Cognitive neuroscience of language
  - and language use!
- Evolution of language/communication
  - Agent-based modeling
  - Molecular genetics
  - Animal communication studies
- Human language technology



# Some pedagogical opportunities

- Intro linguistics, with emphasis on broad intellectual, historical and social issues
- Rhetoric and composition
- Foreign language learning/use
- Linguistic research areas  
that are easily accessible to undergraduates

# Opportunities in the supermarket checkout line...



(Third in the series “Erotic Grammar”, “Erotic Rhetoric”, “Erotic Logic” . . . )

# The future could be bright

- Research opportunities
  - All the basic problems are still open
  - leverage from
    - New apparatus
    - New mathematics
    - New resources
- Educational opportunities
  - Student interest in language and its use is high
  - Intellectual orphans in the academy:
    - rhetoric/writing
    - foreign languages
    - interpersonal (mis)communication
  - Low starting point offers great proportional upside!

# Our goal?

**World domination. Fast.**

-Linus Torvalds (developer of Linux), May 6, 1995.