Dirty Words, Pig Latin, and the Structure of Language

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Dept. of Linguistics, U. of Arizona
What do linguists do?
What do linguists do?

- We want to understand people.
What do linguists do?

- We want to understand people.
- What makes people unique?
What do linguists do?

- We want to understand people.
- What makes people unique? *Our minds*
What do linguists do?

- We want to understand people.
- What makes people unique? *Our minds*
- What makes our minds unique?
What do linguists do?

• We want to understand people.
• What makes people unique? *Our minds*
• What makes our minds unique? *Language*
Ernie
Ernie

Birds, bees, dogs, etc. all “communicate”
Ernie

Birds, bees, dogs, etc. all “communicate”
... but is it language?
What *don’t* linguists do?
What *don’t* linguists do?

- We don’t tell people how they *should* talk.
What *don’t* linguists do?

- We don’t tell people how they *should* talk.
- We don’t tell people what the rules of language *should* be.
What *don’t* linguists do?

- We don’t tell people how they *should* talk.
- We don’t tell people what the rules of language *should* be.
- ...and we do *not* necessarily speak a lot of languages.
So what *do* linguists do?
So what *do* linguists do?

- We look at how languages work and how they vary.
So what do linguists do?

- We look at how languages work and how they vary.
- These tell us how the mind works.
So what *do* linguists do?

- We look at how languages work and how they vary.
- These tell us how the mind works.
- In particular that there is a rich invisible structure underlying language that reveals itself in different ways.
So what *do* linguists do?

- We look at how languages work and how they vary.
- These tell us how the mind works.
- In particular that there is a rich invisible structure underlying language that reveals itself in different ways, *even in language games and dirty words.*
High tech
High tech

“Ernie, Ernie, bo-bernie...
Low tech?

Two language systems that tell us about that “invisible” structure:
Low tech?

Two language systems that tell us about that “invisible” structure:

- the “Name Game”
Low tech?

Two language systems that tell us about that “invisible” structure:

• the “Name Game”
• Expletive Infixation
The “Name Game”

Ernie
The “Name Game”

Ernie, Ernie, bo-Bernie,
Banana, fana, fo-Fernie,
Me, my, mo-Mernie,
Er-nie.
Another name

Jonah
Another name

Jonah, Jonah, bo-bonah,
Banana, fana, fo-Fonah,
Me, my, mo-Monah,
Jo-nah.
How to play
How to play

- Replace any word-initial consonants with [b], [f], and [m].
How to play

- Replace any word-initial consonants with \([b]\), \([f]\), and \([m]\).
- If there’s no word-initial consonant: Ernie/Anna \(\rightarrow\) bernie/banna
How to play

• Replace any word-initial consonants with [b], [f], and [m].

• If there’s no word-initial consonant:
  Ernie/Anna → bernie/banna

• If there’s just one consonant, replace it:
  Todd/Bonnie → bodd/bonnie
More than one consonant

If there’s more than one consonant, replace them all:
More than one consonant

If there’s more than one consonant, replace them all:

Steve/Stella → beve/bella
Brad/Brenda → bad/benda
Dwight/Gwen → bight/ben
Strom/Sprague → bom/bag
More than one consonant

If there’s more than one consonant, replace them all:
Steve/Stella → beve/bella
Brad/Brenda → bad/benda
Dwight/Gwen → bight/ben
Strom/Sprague → bom/bag

But:
Beula/Buford → b[y]eula/b[y]uford
# Names that work fine

<table>
<thead>
<tr>
<th>one syllable</th>
<th>two syllables</th>
<th>three syllables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bob</td>
<td>Joseph</td>
<td>Christopher</td>
</tr>
<tr>
<td>Anne</td>
<td>Robert</td>
<td>Madeline</td>
</tr>
<tr>
<td>Strom</td>
<td>Jonah</td>
<td>Catherine</td>
</tr>
<tr>
<td>Ed</td>
<td>Michael</td>
<td>Sergio</td>
</tr>
</tbody>
</table>
# Stress matters

<table>
<thead>
<tr>
<th>one syllable</th>
<th>two syllables</th>
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<tbody>
<tr>
<td>Bób</td>
<td>Jóseph</td>
<td>Christopher</td>
</tr>
<tr>
<td>Ánne</td>
<td>Róbert</td>
<td>Mádeline</td>
</tr>
<tr>
<td>Stróm</td>
<td>Jónah</td>
<td>CátHERine</td>
</tr>
<tr>
<td>Éd</td>
<td>Míchael</td>
<td>Sérgio</td>
</tr>
</tbody>
</table>
Names that don’t work!

• Two syllables (final stress): Daniélle

• Three syllables (second syllable stress): Amánda

• Three syllables (third syllable stress): Adriénne

• Four syllables+ (any stress): Agamémnon, Ábernathy
Names that don’t work!

- Two syllables (final stress): Daniélle (cf. Dániel)
- Three syllables (second syllable stress): Amánda (cf. Ágatha)
- Three syllables (third syllable stress): Adriénne (cf. Ádrian)
- Four syllables+ (any stress): Agamémnon, Ábernathy
The generalization

The game can be played with names that are composed of a “stressed” syllable followed by at most two (unstressed) syllables.

<table>
<thead>
<tr>
<th>yes</th>
<th>no</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bób</td>
<td>Daniéllle</td>
</tr>
<tr>
<td>Jóseph</td>
<td>Amánda</td>
</tr>
<tr>
<td>Chrístopher</td>
<td>Adriénne</td>
</tr>
<tr>
<td></td>
<td>Agamémnon</td>
</tr>
<tr>
<td></td>
<td>Ábernathy</td>
</tr>
</tbody>
</table>
The generalization

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<td>Bób</td>
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</tr>
<tr>
<td>Jóseph</td>
<td>Amánda</td>
</tr>
<tr>
<td>Christopher</td>
<td>Adriéenne</td>
</tr>
<tr>
<td></td>
<td>Agamémnon</td>
</tr>
<tr>
<td></td>
<td>Ábernathy</td>
</tr>
</tbody>
</table>
Don’t be offended!

Minnesota
Don’t be offended!

Minnesota

Minne–ṣ*–sota
Don’t be offended!

Minnesota

Minne–$f^*–sota
Not: *Mi(n)–$f^*–nesota
Not: *Minneso–$f^*–ta
Some more

Tennessee

Montana
Some more

Tennessee

Tenne–$f^*$–ssee

Montana

Mon–$f^*$–tana
Some more

Tennessee

Tenne–f*ssee
Not: *Te(n)–f*nsee

Montana

Mon–f*tana
Not: *Monta–f*na
Multiple options

Timbuktu

Apalachicola

Alamagordo
Multiple options

Timbuktu
Tim–f*buktu and Timbuk–f*tu

Apalachicola
Apa–f*lachicola and Apalachi–f*cola

Alamagordo
Ala–f*magordo and Alama–f*gordo
Some words don’t work at all!

<table>
<thead>
<tr>
<th>These work</th>
<th>but these don’t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mînne–sota</td>
<td>Missouri</td>
</tr>
<tr>
<td>Tenne–ssee</td>
<td>Florida</td>
</tr>
<tr>
<td>Mon–tana</td>
<td>Georgia</td>
</tr>
<tr>
<td>Tîm–buk–tu</td>
<td>Connecticut</td>
</tr>
<tr>
<td>Apa–lachi–cola</td>
<td></td>
</tr>
<tr>
<td>Ala–ma–gordo</td>
<td></td>
</tr>
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</table>
### Stress patterns

<table>
<thead>
<tr>
<th>These work</th>
<th>but these don’t</th>
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<tbody>
<tr>
<td>Minne–sóta</td>
<td>Missóuri</td>
</tr>
<tr>
<td>Tènne–ssée</td>
<td>Flórida</td>
</tr>
<tr>
<td>Mòn–tána</td>
<td>Geórgia</td>
</tr>
<tr>
<td>Tìm–bùk–tú</td>
<td>Connécticut</td>
</tr>
<tr>
<td>Àpa–làchi–cóla</td>
<td></td>
</tr>
<tr>
<td>Àla–ma–górdo</td>
<td></td>
</tr>
</tbody>
</table>
What’s the pattern?
What’s the pattern?

- The expletive must have at least one stressed syllable on either side.
What’s the pattern?

- The expletive must have at least one stressed syllable on either side.
- If there’s one or more stressless syllables in between, at least one of those must be to the left of the infix.
The trochaic foot
The trochaic foot

• There is an *invisible* grouping of syllables that controls the “Name Game” and Expletive Infixation.
The trochaic foot

- There is an *invisible* grouping of syllables that controls the “Name Game” and Expletive Infixation.
- This invisible grouping includes a single stressed syllable and up to two following stressless syllables.
The trochaic foot

- There is an *invisible* grouping of syllables that controls the “Name Game” and Expletive Infixation.
- This invisible grouping includes a single stressed syllable and up to two following stressless syllables.
- This is called the *trochaic foot*. 
Confirmation
Confirmation

• Nicknames tend to be of this form as well, e.g. Bóbbie, Cáthy, Jóey, etc.
Confirmation

- Nicknames tend to be of this form as well, e.g. *Bóbbie, Cáthy, Jóey*, etc.
- Children tend to reduce longer words to just this pattern as well, e.g. *banána → ’nána* (Gerken, Carter).
Conclusions
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• There are hidden structures in language.
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• These can only be detected by looking at how language works in various contexts.
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- Here a language game and dirty words converge on the *same* hidden structure.
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- People don’t learn how to play this game or insert the expletive in school.
Conclusions

- There are *hidden* structures in language.
- These can only be detected by looking at how language works in various contexts.
- Here a language game and dirty words converge on the *same* hidden structure.
- People don’t learn how to play this game or insert the expletive in school.
- Poetry and literature may be satisfying to read, but sometimes the most revealing language is of a very different sort.