What Makes Humans So Smart?  
Possibility #2

• Although the core cognitive systems of humans are the same as those of other animals...

• Language—which is unique to humans—allows humans to combine information from different core systems

• Crucial feature: compositional semantics

**But: insight may also be required**
CONCLUSION

• “...human intelligence depends both on core knowledge systems...and on a uniquely human combinatorial capacity...made possible by natural language...that serves to conjoin these representations to create new systems of knowledge.”

How does language help us think?

Possibility #1

We cannot think at all without language

• Evidence for:
  – We usually experience our thought as “talking to ourselves”

How does language help us think?

Possibility #1

We cannot think at all without language

• Evidence against:
  – Thinking is largely independent of what language you think in (otherwise translation would not be possible)
  – Linguistic expression can exist without thought
    • Jabberwocky, memorized ritual language, W5??
  – Thought can exist without linguistic expression
    • Composers, artists, motor intelligence (washing dishes, swimming, ice skating)
How does language help us think?
Possibility #2

- Collective and cumulative knowledge can be passed on
- Language allows us to attend to our own thoughts, which we can then build on
- Language gives us labels for different valuations of our percepts ("real", "imaginary", "self-controlled") and thus makes our valuations conscious

Linguistic Zeroes
What you see is not what you get

- The fish is swimming this way
- The fish are swimming this way
- The fish_ are swimming this way

Linguistic Zeroes
What you see is not what you get

- Max called Lisa after __ reading the newspaper
- Max called Lisa after (Max) reading the newspaper
- Max asked Lisa __ to move the car
- Max asked Lisa (Lisa) to move the car
- Max promised Lisa __ to move the car
- Max promised Lisa (Max) to move the car
- __ Reading the newspaper is depressing.
- (Anybody) Reading the newspaper is depressing

Linguistic Zeroes
What you see is not what you get

- The dog the girl likes is thirsty.
- The dog __ the girl likes is thirsty.
- The dog who the girl likes is thirsty.
- The girl who likes the dog is hungry.
- *The girl __ likes the dog is hungry.
Another Linguistic Zero:
The case of the missing copula in African American Vernacular English

• “She the first one started us off”
• She ___ the first one ___ started us off
• She is the first one who started us off

Is AAVE just lacking the verb BE?

• Many languages show no copula (BE) before predicative adjectives (Hebrew, Hungarian, Russian)
• Example from Jamaican Creole English:
  • im sik bad (‘She is very sick’)

The case of the missing copula
In AAVE

• “He fast in everything he do”
• Michael Washington out here sellin’ his stuff.
• “Boot always comin’ over my house to eat.”
• “He just feel like he gettin’ cripple up from arthritis.”

Is AAVE just lacking the verb BE?

• Sometimes BE is present in full form:
  – “We send Kenneth, ‘cause Kenneth is tough”
  – “About two is in jail now”

• Sometimes BE is present in contracted form:
  – “I know it’s the root of all evil”
  – “I told you, I don’t believe there’s no God.”
Is AAVE just lacking the verb BE?

**NO**

- The full form, contracted form, and zero form may co-occur in rapid alternation during “sounding”:
  - Your mama’s a weight lifter
  - Your mother ___ a applejack-eater
  - Your mother is a Phil D. basket
  - Your mother’s a diesel
  - Your mother ___ a ass, period
  - Your mother IS a lizard
  - Your mother ___ a fleabag

How does the copula work in AAVE?:

**Some possibilities**

1. The grammatical category of the copula to be may be optional in AAVE
2. The copula may have 3 alternate forms: is, ’s, and Ø
3. Or something else?

Which forms occur where?

Is there a pattern?

An overt form of BE appears systematically in many well-defined contexts:

- The past:
  - “I was small; I was sump’m about one years o’baby”
  - “She was likin’ me…she was likin’ George too”

- Emphasis
  - “Allah is God”
  - “He is a expert”
An overt form of BE appears systematically in many well-defined contexts:

- Elliptical responses
  - (You ain’t the best sounder, Eddie!) I ain’t. He is!
- After ellipsis in comparative constructions
  - “He is better than the girls is”
  - “It always somebody tougher than you are”
- In embedded clauses with wh-heads
  - “That’s what he is: a brother”
  - “I don’t care what you are”

Comparison with Standard American English: Where can contraction of be occur?

<table>
<thead>
<tr>
<th>Present tense is/are Non-emphatic</th>
<th>&quot;Standard&quot; American English</th>
<th>AAVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>She is the first one who started us off.</td>
<td>She is the first one started us off.</td>
<td>She is the first one started us off.</td>
</tr>
<tr>
<td>She’s the first one who started us off.</td>
<td>She’s the first one started us off.</td>
<td>She Ø the first one started us off.</td>
</tr>
<tr>
<td>Boot is always comin’ over.</td>
<td>Boot is always comin’ over.</td>
<td>Boot Ø always comin’ over.</td>
</tr>
<tr>
<td>Boot’s always comin’ over.</td>
<td>Boot’s always comin’ over.</td>
<td>Boot Ø always comin’ over.</td>
</tr>
</tbody>
</table>

Comparison with Standard American English: Where can contraction of be NOT occur?

<table>
<thead>
<tr>
<th>Past was/were</th>
<th>&quot;Standard&quot; American English</th>
<th>AAVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was small.</td>
<td>I was small.</td>
<td>I Ø small.</td>
</tr>
<tr>
<td>&quot;I’s small.</td>
<td>&quot;I’s small.</td>
<td>&quot;I Ø small.</td>
</tr>
<tr>
<td>Emphasis</td>
<td>He is there.</td>
<td>He is there.</td>
</tr>
<tr>
<td>&quot;He’s there.</td>
<td>&quot;He’s there.</td>
<td></td>
</tr>
<tr>
<td>Are you going? &quot;I’m.</td>
<td>Are you going? &quot;I Ø.</td>
<td></td>
</tr>
<tr>
<td>Comparative ellipse</td>
<td>He’s as nice as he says he is.</td>
<td>He’s as nice as he says he is.</td>
</tr>
<tr>
<td>&quot;He’s as nice as he says he’s&quot;</td>
<td>&quot;He’s as nice as he says he Ø.</td>
<td></td>
</tr>
<tr>
<td>Embedded clauses with wh-heads</td>
<td>That’s what he is.</td>
<td>That’s what he is.</td>
</tr>
<tr>
<td>&quot;That’s what he’s.&quot;</td>
<td>&quot;That’s what he Ø.</td>
<td></td>
</tr>
</tbody>
</table>

Generalization

- Where other English dialects do not permit contraction of be (‘s, ‘re), AAVE does not permit deletion (Ø)
- Where other English dialects do permit contraction of be (‘s, ‘re), AAVE does permit deletion (Ø)
1. The grammatical category of the copula to be may be optional in AAVE

2. The copula may have 3 alternate forms: is, ‘s, and Ø

3. *Be* is present regularly in the grammar, but it is reduced by the contraction rules of casual speech to ‘s and then to zero.

How does the copula work in AAVE?: Some possibilities

Moral

No dialect is inherently better or worse than any other, they are just different

In this case, the difference between 2 dialects is actually quite superficial

Hands on analysis of tag questions