Sentence Production

Beginning research focused on speech errors

More recent experimental

Questions:

1. Stages in production process
2. Scope of planning
3. Interaction vs. modularity
Examples of Sentence Level Speech Errors

They hissed my mystery lectures.  (attributed to Prof. Spooner)

She wore a gownless evening strap.  (from Freud)

Freudian Slips?
Stages in production process an issue because:

1. Simultaneity of ideas to be expressed in clause, sentence
2. Transform to linear sequence of words
3. Word choice, grammatical structure to be planned
Sound Exchanges

T - Be careful on the slick streets.
A - Be careful on the strick sleets.

T - His first perception was ... 
A - His pirst ferception was ...

T - Children interfere with your night life
A - Children interfere with your light knife.
Word Exchanges

T - I’ll take my check to the bank.
A - I’ll take my bank to the check.

T - I won’t go to the grocery store to buy
A - I won’t buy to the grocery store to go....go to the grocery store to buy

T - Did you ask her why my room matched my personality?
A - Did she ask you why my room matched my personality?

T - My room’s empty without my chair.
A - My chair’s empty without my room.

T - “Shake it up” came out.
A - “Shake it out” came up.
Different properties of sound and word exchanges
Properties of Sound Errors

strict sleets, pirst ferception, knife light

1. Distance?  Nearby - adjacent words

2. Position?  Similar position in word

3. Similarity?  (phon vs. semantic)
   tend to occur between words with some phonological similarity, semantic similarity not relevant, grammatical class not relevant
Properties of Word Exchanges

check-bank, go-buy, you-her (she-you), room-chair, up-out

1. Distance - greater distance than sound errors, can be far apart

2. Similarity
    a. Phonological? - not evident
    b. Semantic? - some similarity or relatedness
    c. Grammatical class? - matching grammatical class
Word exchanges occur at a stage where words that end up being distant in speech are close together in mental representation -

E.g. propositional (functional) representation being planned

```
agent  theme  location
   |       |   /
Take (first person, check, bank)
   |       |     |
subj   d.o.   i.o.
```

Sound not planned at this point, since sound not relevant to error
Sound Errors

Occur later, over smaller distance

Suggest phonological planning occurs for only a few words at a time
Bock and Levelt (1994) Model of Speech Production

MESSAGE

Functional

Lexical Selection
Function Assignment

Processing

Positional

Constituent Assembly
Inflection

Processing

Phonological Encoding

to output systems

Grammatical Encoding
Bock and Levelt (1994) Model of Speech Production

MESSAGE

Functional

Processing

Positional

Processing

Phonological Encoding

to output systems

Word exchanges

Lexical Selection Function Assignment

Grammatical Encoding

Stranding errors

Constituent Assembly Inflection

Sound errors

to output systems
Model is modular

Are there interactions between levels?
Baars, Motley, MacKay (1975)

Elicited speech errors

<table>
<thead>
<tr>
<th>Condition 1</th>
<th>Condition 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>big Dutch</td>
<td>big Dutch</td>
</tr>
<tr>
<td>best doll</td>
<td>best doll</td>
</tr>
<tr>
<td>bill death</td>
<td>bill death</td>
</tr>
<tr>
<td>bark dog</td>
<td>bark dog</td>
</tr>
<tr>
<td>dart board</td>
<td>darn bore</td>
</tr>
</tbody>
</table>