WHAT CAN STRUCTURAL PRIMING TELL US ABOUT SYNTACTIC REPRESENTATIONS?

STRUCTURAL PRIMING

I. Priming in Production:
   - Spoken Production:
     Prime: Subjects repeat either 1a or 1b
     (1a) The rock star sold *some cocaine to an undercover agent*. (PO)
     (1b) The rock star sold *an undercover agent some cocaine*. (DO)

     Target: They describe a picture that can be depicted with PO or DO
     e.g. a girl handing a brush to a man
     More PO after PO prime, more DO after DO prime
     Also for active/passive alternation
     The effect is syntactic and NOT:

     * Lexical: Both 2a and 2b prime 2c.
     (2a) The secretary baked a cake *for* her boss. (P1)
     (2b) The secretary took a cake *to* her boss. (P2)
     (2c) The girl handed the paintbrush *to* the man. (T)

     * Metrical: No priming between 4a and 4b
     (4a) Susan bought a book to study.
     (4b) The girl gave a brush to the man.

     * Written Production: Sentence Completion Task:
     (5a) The messenger handed an unsigned note…
     (Prime: either PO or DO possible)
     (5b) The head waiter gave…
     (Target: Both PO&DO possible)

     Same result: More PO after PO prime, more DO after DO prime

II. Priming in Comprehension:
   - Garden Path Disambiguation:
     Early Closure sentences prime 6a, Late Closure sentences prime 6b in reading Garden Path sentences
     (6a) While the woman was eating the creamy soup went cold.
     (6b) While the woman was eating the creamy soup the pudding went cold.

III. Priming from Comprehension to Production
   - Sentence Completion: Reading 7a, primes PO response in 7b; same for DOs.
     (7a) A soldier was in the court, accused of attacking a young man. The victim showed his injuries to the judge. The judge gave… (P)
     (7b) A soldier was in the court, accused of attacking a young man. The victim showed the judge his injuries. The judge gave… (T)
IV. Priming from Production to Comprehension
- Sentence-Picture Matching Task:
  Subjects first read globally ambiguous phrases like 8:

(8) The policeman prodding the doctor with the gun
(NP & VP attachment possible) (P)

Then, they are shown and asked to choose between 2 pictures, only one
of which matches the prime sentence 8.
In target trials, one picture matches NP and other VP attachment. Result: Priming

- Visual-world Eye-movement Paradigm:
Prime: Subjects first read aloud PO/DO sentences
Target: Listen to 9a or 9b while looking at picture:
Predictory eye-movements: Priming
(9a) The pirate will send the princess the necklace.
(9b) The pirate will send the necklace to the princess.

STRUCTURAL PRIMING BETWEEN TURKISH NOUNS AND
NOMINALIZED VERBS

Possessive Noun Phrases in Turkish

(10) (Ben) [Hasan-ın kitab-ın] -ı oku-du-m
“I read Hasán’s book.”

Turkish Noun Clauses marked with the nominalization suffix –DIK

(11) [(Sen-in) piyano çal-diğ-ın] -ı bilmiyordum
You-GEN piano play-VN-2SG.POSS-ACC
“I didn’t know [you played the piano]”

MAIN STRUCTURAL PRIMING STUDY:
Sentence Completion Tasks

1) Free Completion

(12a) Adam kadın-ın ............... gör-du
Man woman-GEN see-Past
(PRIME: N or V: “kedi-si-ni” or “gel-diğ-i-ni”)
cat-3SG-ACC come-VN-3SG-ACC

(12b) Adam kadın-ın ............... düşün-du
Man woman-GEN think-Past
(TARGET: N or V)
2) Guided Completion

(13a) Adam kadın-ın …………… yıkı-yor (PRIME, N)
Man woman-GEN wash-Pres-3.sg.
(13b) Adam kadın-ın …………… düşün-üyor (TARGET1, N or V)
Man woman-GEN think-Pres-3.sg.
(13c) Adam kadın-ın …………… boyu-yor (TARGET2, N)
Man woman-GEN paint-Pres-3.sg.

(14a) Adam kadın-ın …………… san-iyor (PRIME, V)
Man woman-GEN believe-Pres-3.sg.
(14b) Adam kadın-ın …………… düşün-iyor (TARGET1, N or V)
Man woman-GEN think-Pres-3.sg.
(14c) Adam kadın-ın …………… zanned-iyor (TARGET2, V)
Man woman-GEN suppose-Pres-3.sg.

PRELIMINARY STUDY

Free Completion Task

Frequencies of native speakers’ preferences of nouns vs. nominalized verbs with target matrix verbs to be used in main study

14 Target Verbs:

SET1:
- anla- (to understand)
- gör- (to see)
- düşün- (to think)
- gizle- (to hide)
- hatırlı- (to remember)
- açıkla- (to explain)
- onayla- (to approve)

SET2:
- öğren- (to learn)
- duy- (to hear)
- hisset- (to feel)
- gözlemle- (to observe)
- unut- (to forget)
- anlat- (to tell)
- kanıtla- (to prove)

Sample Sentences:

Filler:

<table>
<thead>
<tr>
<th>President</th>
<th>building-ABL</th>
<th>speed-with</th>
<th>go away-Past-3sg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Başkan</td>
<td>bina-dan</td>
<td>hız-la</td>
<td>uzaklaş-tı.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>araba-si-yla</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>korku-yla</td>
<td></td>
</tr>
</tbody>
</table>

Target:

<table>
<thead>
<tr>
<th>Korsan, prenes-in</th>
<th>onu öp-tüğü-nü</th>
<th>hatırladı.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>kolye-si-ni</td>
<td>gel-e-me-yeceğ-i-ni</td>
</tr>
<tr>
<td></td>
<td>öfke-si-n-i</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pirate, princess-GEN</th>
<th>him kiss-VN-3sg-ACC</th>
<th>remember-Past-3sg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>necklace-3sg-ACC</td>
<td>come-can-NEG-VN-3sg-ACC</td>
</tr>
<tr>
<td></td>
<td>anger-3sg-ACC</td>
<td></td>
</tr>
</tbody>
</table>

Subjects

Number: 28 (15 M, 13 F)
Age: 21-58 Average: 30.3
Results

N-Bias: gizle-, onayla-
Balanced: anlat-, anla-, öğren-, duy-, gözlemle-, unut-
V-Bias: hatırla-, açıkla-, gör-, kanıtladı, hisset-, düşün-

FUTURE EXPERIMENTS

I. Bi-Directional Priming

A. From Production To Comprehension:
   Visual-World Eye-Movement Paradigm
B. From Comprehension To Production:
   Confederate-Scripting Technique

P1: Adam kadın-na kedi-si-ni gördü.
    Man woman-GEN cat-3sg-ACC see-Past-3sg

    Man woman-GEN cat-ACC caress-VN-3sg-ACC see-Past-3sg

T: Adam kadının…
   Man woman-GEN

+ Picture depicting a woman caressing a cat, a man seeing this, another picture with a similar event

II. Cross-Categorical Priming and Word Order

A. Reading Times (Priming) & eye-tracking

[Adam [kadının geldiğini] gördü].
[Adam gördü] [kadının geldiğini].
[Adam [kadının gördü] geldiğini].
(Alternating: man, woman-GEN, come-VN-3sg-ACC & see-Past-3sg)

B. Extended Cross-Categorical Priming

[Adam [kadının kedisini] gördü].
[Adam gördü] [kadının kedisini].
[Adam [kadının gördü] kedisini].
(Alternating: man, woman-GEN, cat-3sg-ACC & see-Past-3sg)
REFERENCES


