The Role of Grammatical Role Assignment in Production in Three Languages
Jessica L. Montag & Maryellen C. MacDonald
University of Wisconsin-Madison

Introduction
Speakers’ structure choices vary with the animacy of the head noun. For example, speakers tend to prefer sentence 1 over sentence 2 (Bock & Warren, 1985).

1. The doctor administered the shock.
2. The shock was administered by the doctor.

This choice might be motivated by grammatical role assignment (functional processing), but it could also stem from surface word order (positional processing) in production planning. To investigate this question, we examined active object relative and passive relative productions in English, Japanese, and Korean.

English
Active: The ball that the boy is kicking...
Passive: The ball that is being kicked by the boy...

Japanese
Active: 男の子に蹴られているボール...
"The ball that the boy in kicking..."
Passive: 男の子が蹴られているボール...
"The ball that is being kicked by the boy..."

Korean
Active: 소년이 차는 공...
"The ball being kicked by the boy..."
Passive: 소년에게 차는 공...
"The ball that the boy is kicking..."

Why do the languages show different patterns?

In English, passivization is a response to topicalization, but topicalization may have a different effect in Japanese and Korean.
The degree to which a language requires that a topic be a subject could account for these cross-linguistic differences.
These constraints may be revealed in different consequences of topicalization in different languages.

Prediction: If word order motivates structure choice, Japanese and Korean should show different patterns than English.
If functional processing motivates structure choice, cross-linguistic productions should be similar.

Results: Experiment 1

Participants
18 native English, 18 native Japanese and 17 native Korean speakers.

Participants viewed color illustrations that contained humans acting upon human and inanimate entities and answered an auditorially presented question. The question referred to either an animate patient or an inanimate theme.

Animate Target: Who is wearing blue?
Sample Answer: "The girl that the boy is kicking" or "The girl being kicked by the boy"

Inanimate Target: What is orange?
Sample Answer: "The ball that the boy is kicking" or "The ball being kicked by the boy"

Results: Experiment 2

In Experiment 2, we investigate the role of topicalization in structure choice.

Participants

Participants viewed color illustrations that contained simple actions and typed responses to questions about either an animate patient or an inanimate theme. Questions were phrased to topicalize the item being asked about.

Animate Target: Tell me about the girl.
Sample Answer: "The boy is kicking the girl." or "The girl is being kicked by the boy."

Inanimate Target: Tell me about the ball.
Sample Answer: "The boy is kicking the ball." or "The ball is being kicked by the boy."

We found robust animacy effects in all three languages regardless of word order. This suggests that rather than word order (positional processing), grammatical role assignment (functional processing) seems to account for the observed data.

Speakrs of the three languages experienced similar message-level constraints which motivated them to phrase animate items as the grammatical subject. However the speakers varied in the extent to which languages bias topics to be grammatical subjects.

This suggests that speakers of different languages may consider similar factors when making structure choices, but the relative weights of these factors vary cross-linguistically.

References

Questions and comments can be addressed to Jessica Montag at montag@wisc.edu.