

Do we know what's in and what's out?

The mental representation behind inward
and outward articulation dynamics



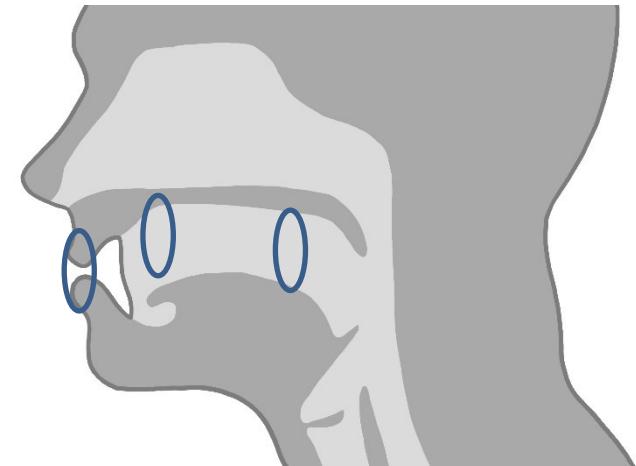
Which word do you like more?

BODIKA

vs. KODIBA

The articulatory in-out effect

- Preference for stimuli with **inward-oriented** articulation dynamic compared to stimuli with **outward-oriented** articulation dynamic
 - Front Consonants: B, M, P, F, W
 - Middle Consonants: T, D, S, L, N
 - Rear Consonants: K, R, G



BODIKA
→

KODIBA
←



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Angaben zum Verkäufer
EBOG
Angemeldet als privater Verkäufer

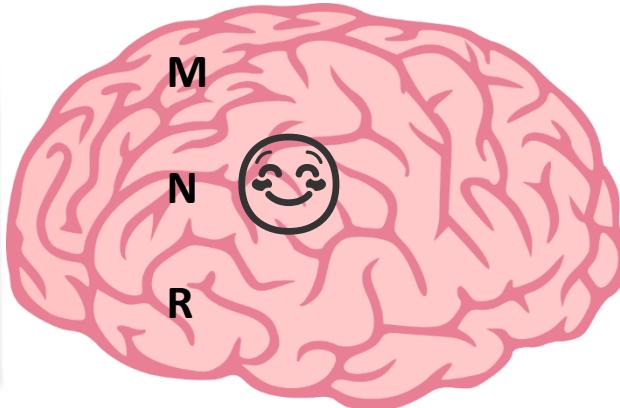
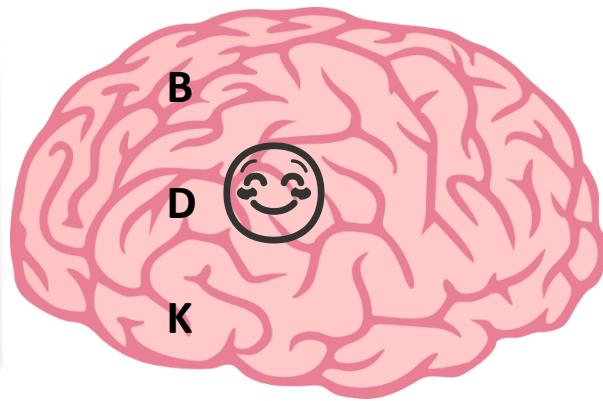
+ Diesem Verkäufer folgen
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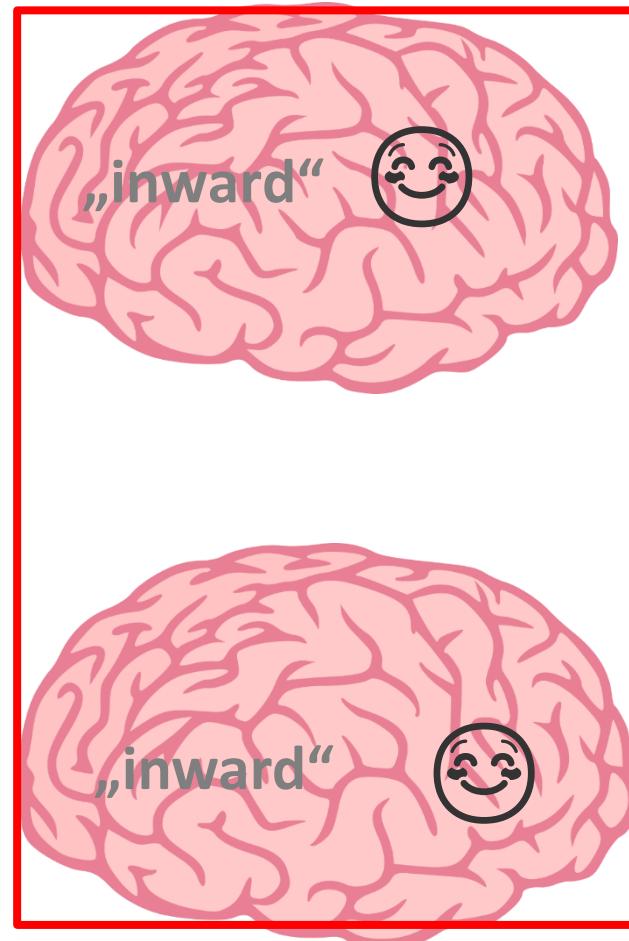
Angaben zum Verkäufer
OGIP
Angemeldet als privater Verkäufer

+ Diesem Verkäufer folgen
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A generalized representation of inward/outward dynamics?



Generalized Representation



Evaluative Conditioning (EC)

change of the liking of a conditioned stimulus (CS) due to the pairing with a valenced unconditioned stimulus (US)

BODIKA



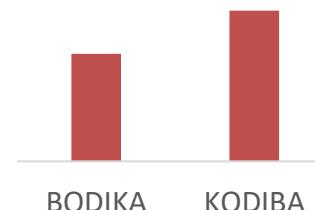
KODIBA



BODIKA



KODIBA

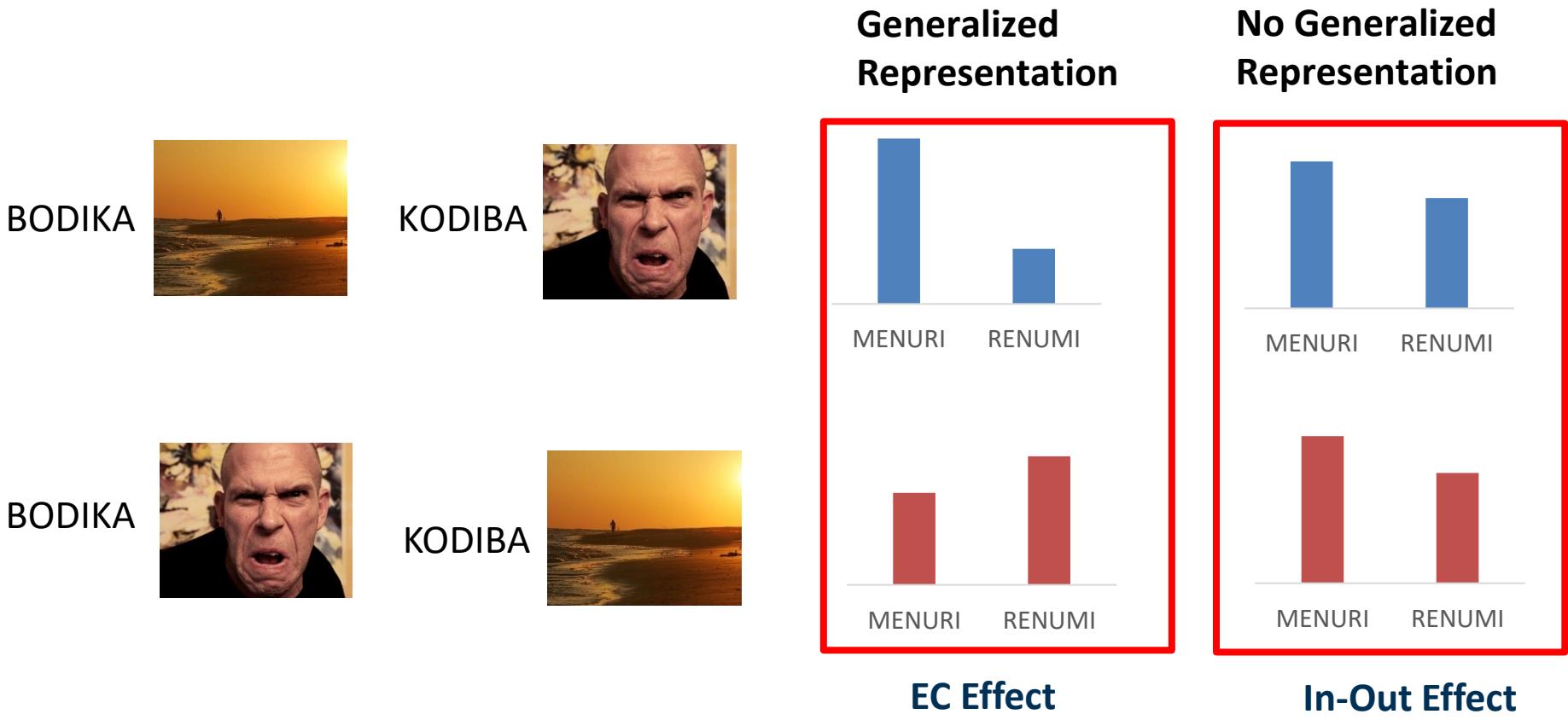


EC– Generalization

- Evaluative Conditioning generalizes to similar stimuli
 - BODIKA → BADIKO
- Even if similarity is abstract
 - Can EC generalize also from BODIKA → MENURI?
 - If there is a generalized representation underlying these words, then yes!!!

EC– Generalization

- Evaluative Conditioning generalizes to similar stimuli



Methods

- 3 Experiments ($N = 90$, $N = 112$, $N = 221$)
- Procedure
 - Conditioning phase: Inward/outward word + US
 - Rating phase: Measure in-out effect



BODIKA



KODIBA



Wie sehr gefällt Ihnen dieses Wort?

1= gefällt mir gar nicht
9= gefällt mir sehr

Verwenden Sie bitte die Zahlen 1-9 auf der Tastatur.

BODIKA



KODIBA



BODIKA

Rating Phase

Within Subjects

		Conditioned	Word Type	
			Same Consonants	New Consonants
Dynamic	Inward	BODIKA	BADIKO	MENURI
	Outward	KODIBA	KADIBO	RENUMI

EC Effect

Rating Phase

Within Subjects

			Word Type	
		Conditioned	Same Consonants	New Consonants
Dynamic	Inward	BODIKA	BADIKO	MENURI
	Outward	KODIBA	KADIBO	RENUMI

EC Generalization
at all

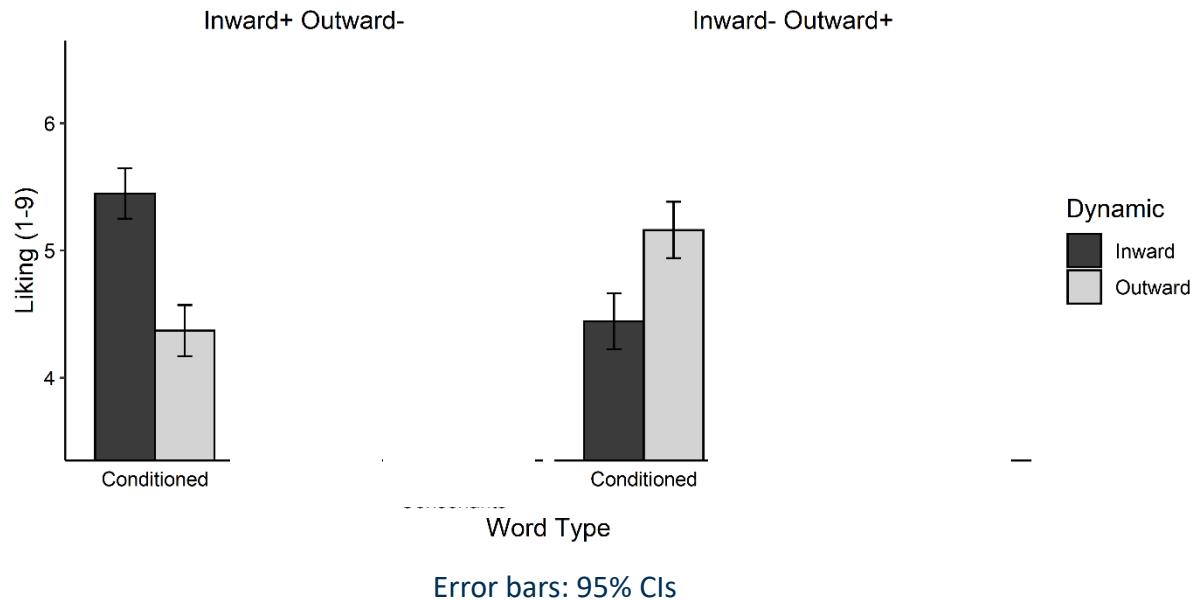
Rating Phase

Within Subjects

			Word Type	
		Conditioned	Same Consonants	New Consonants
Dynamic	Inward	BODIKA	BADIKO	MENURI
	Outward	KODIBA	KADIBO	RENUMI

EC Generalization
on the articulation dynamic

Integrative Data Analysis ($N = 420$)



New-Consonant Words

In-Out effect

$$F(1, 414) = 15.13, p < .001,$$
$$BF_{10} > 1000$$

EC effect

$$F(1, 414) = 1.52, p = .219,$$
$$BF_{10} = 0.15$$

→ No EC generalization beyond consonant sequence

Discussion

- Implications
 - EC can overwrite In-Out effect...
 - ...but only for conditioned words and words with the same consonants!
- Interpretation
 - a) No implicit/explicit generalized representation of „inward“/“outward”
 - b) There might be a generalized representation, but EC does not affect it

Thanks to all collaborators!



Thanks for your feedback!

