

When metaphors in the mind become metaphors in the mouth: Documenting the emergence of a new system of linguistic metaphors for time

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Abstract & Introduction

Cultures talk metaphorically about concepts in the same ways they think about them [1,2]

Especially true for time [3,4]. For English speakers: future=ahead, past=behind

Metaphorical language shapes metaphorical thought: Learning new linguistic metaphors for time creates new mental representations [5].

But how does metaphorical thought become metaphorical language?

Native speakers of English and other languages **think** about time on the left-right axis, but **never talk** about time using that axis

We document a novel, conventional system of linguistic metaphors that uses this left-right axis to talk about time.

Study 1: Acceptability Ratings

Active Duty members of the US military (n=23)
 Civilian undergraduates at UC San Diego (n=31)

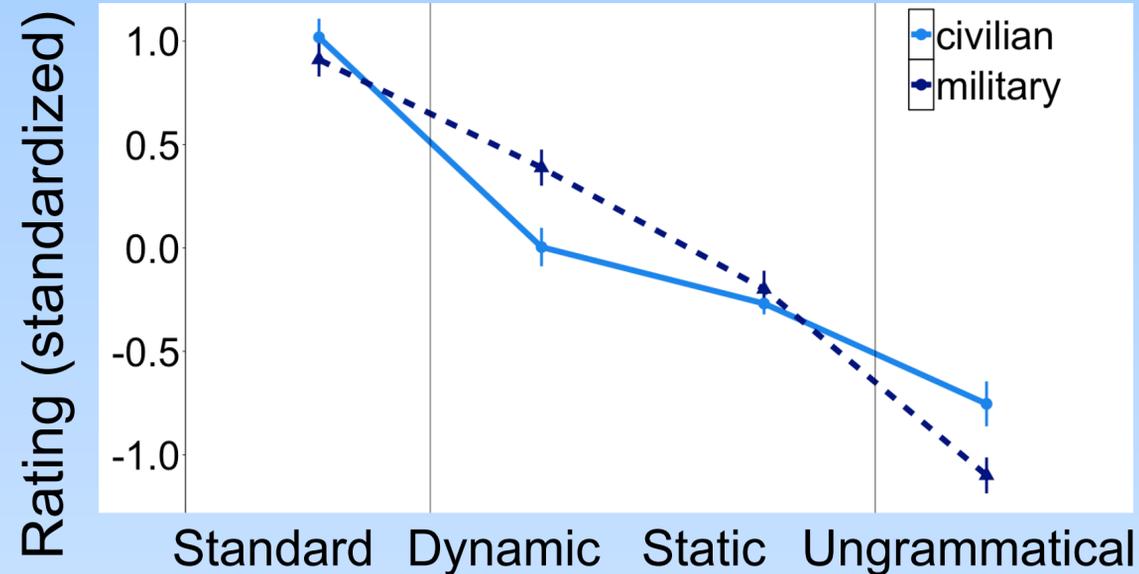
Sentence Types

Standard *The meeting was moved two days earlier, from Friday to Wednesday*

Dynamic-Lateral *The meeting was moved two days to the left from Friday to Wednesday*

Static-Lateral *The meeting on Wednesday is two days to the left of the meeting on Friday*

Ungrammatical *From the meeting was two earlier days, Friday to Wednesday pushed*



Military personnel accepted *Dynamic-Lateral* phrases more than civilians did.

“Move the meeting right” (Dynamic) = “Move the meeting later”

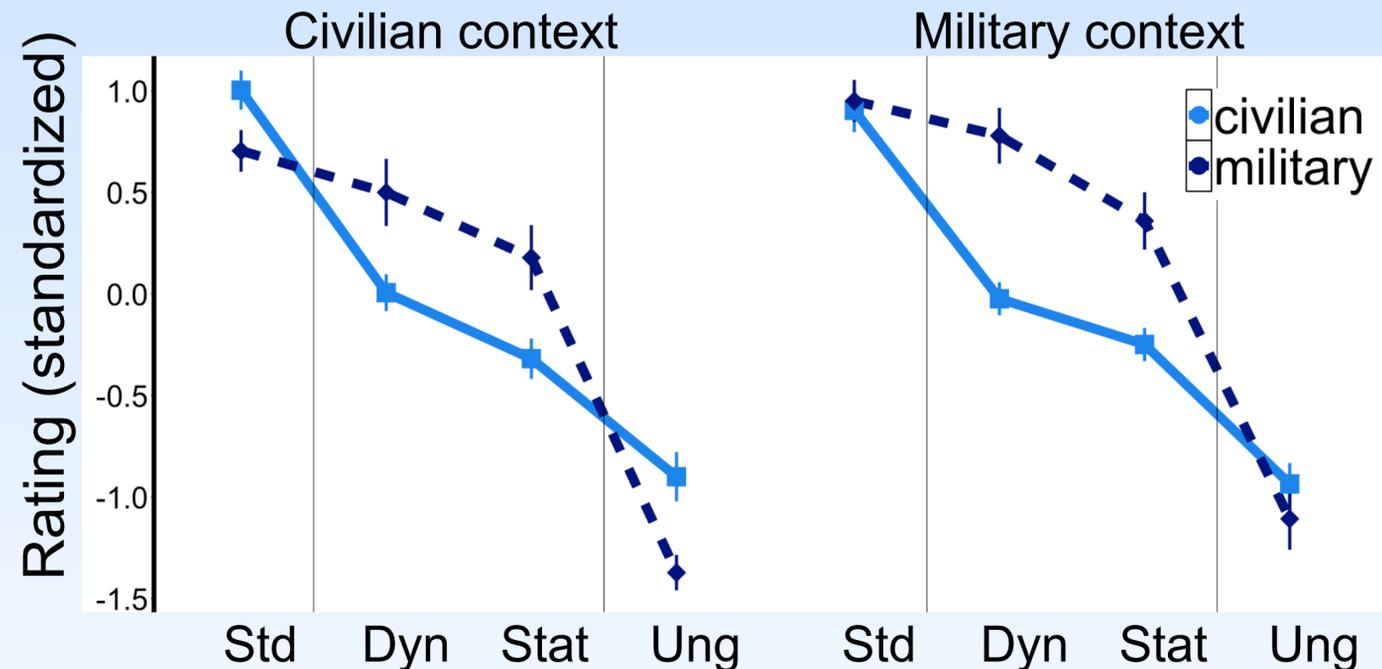
General Discussion

- Members of the US military, especially Officers, accept sentences containing *dynamic-lateral metaphors*, compared to civilians.
- Bidirectional link between conventional linguistic metaphors & cultural conceptual systems:**
- language shapes thought...
- ... but metaphorical mental representations can also make their way into conventionalized language.

Study 2: Acceptability ratings in different contexts (Military vs. Civilian)

Question: Do military personnel recognize that these metaphors are only used in military contexts?

Active Duty members of the US military (n=14)
 Civilian undergraduates at UC San Diego (n=27)



- Again, military personnel selectively accept lateral metaphors, compared to civilians
- True regardless of context: **talking to civilians** (left panel) or **military personnel** (right panel).

References

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 [4] Núñez, R., & Cooperrider, K. (2013). The tangle of space and time in human cognition. *TICS*, 17, 220-229.
 [5] Hendricks, R. K., & Boroditsky, L. (2015). New space-time metaphors foster new mental representations of time. *Proceedings of the 37th Annual Meeting of the Cognitive Science Society*.

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