

# Morphological recomposition and the concrete/abstract distinction in Bangla

## Does the salience of the semantic contrast matter?



### Background

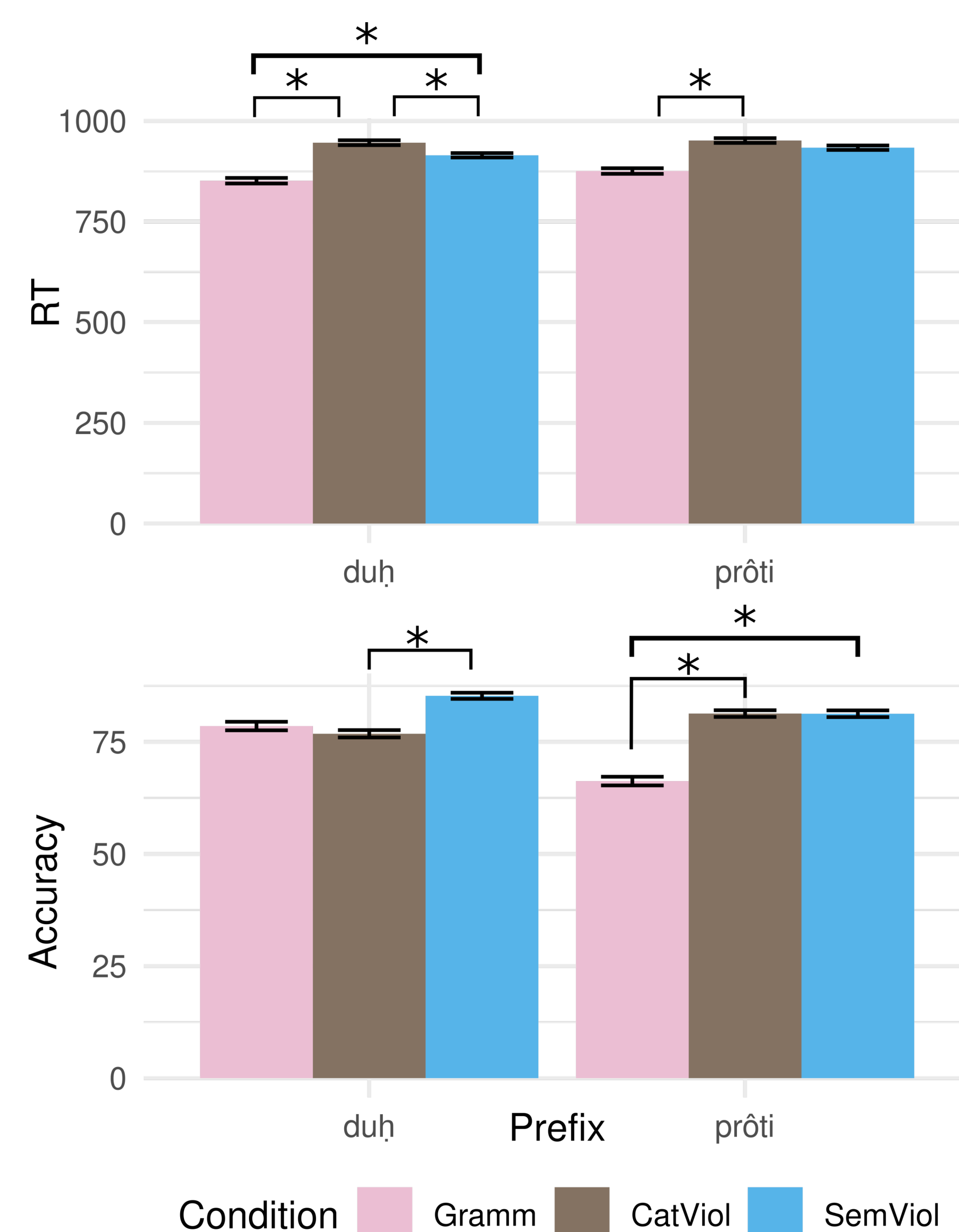
Morphological recomposition for complex words involves two distinct stages: [1]

- checking the syntactic category of the stem (**syntactic licensing**), followed by
- evaluating the well-formedness (**syntactic and semantic composition**).

Previous behavioral studies on English, Greek and Slovenian (and see talks on South Slavic and Tagalog in session 'Block 6') have shown that pseudowords with syntactic **Category Violations** (e.g., \*spoon-able) were responded to *faster* and *more accurately* than pseudowords with **Semantic** (argument structure/thematic) **Violations** (e.g., #die-able) [2,3,4]

- same paradigm and results for event sub-type sensitive derivational prefixes in Slovenian [5] and Bosnian/Croatian/Serbian (talk Block 6-146) and voice marking inflection in Tagalog [6] (talk Block 6-22), suggest that the two-stage recomposition model holds for a range of languages and types of morphology
- but all previous studies investigated **VERBAL** morphology
- what about **NOMINALS**?

### Results



- LMM fit to the RT results show that for *duh* the CatViol condition was **slower** than the SemViol (but no diff for *prôti*)
- CatViol items were **rejected more often** than SemViol for prefix *duh* and not for *prôti*
- For *prôti*, we get no significant effects of interest

Language	Domain	Affix	Example	Gloss
English	V (d)	prefix	*re-knife, #re-smile	—
Greek	V (d)	suffix	*varel-imos, #gela-simos	*barrel-able, #laugh-able
Slovenian	V (d)	prefix	*od-čebula, #od-čutiti	*un-onion, #un-feel
Tagalog	V (i)	prefix	*nag-pusa, #nag-guho	*AV.PFV-collapse, #AV.PFV-cat
♣ BANGLA	N (d)	prefix	*dur-nāk, #dus-kalô	*bad-nose, #bad-black

Table 1. V/N : verbal/ nominal \* CatViol, # (Sem/ArgStr)Viol, ♣ Present Research  
i: inflection, d: derivation, AV.PFV: agentvoice.perfective

### Q: Do morphologically complex Bangla nominals exhibit the same stages of recomposition?

Bangla allows us to extend previous research in three ways

- new syntactic category domain: nominals
- new semantic domain: abstract vs. concrete
- new writing system type: abugida



### Experimental Methods

- 3x2 design, manipulating **Violation** (Gramm(atical); Cat(egory) Viol(ation); Sem(antic) Viol(ation)) and **Prefix** (prôti; duh).
- Visual Lexical Decision Task, N=74 native Bangla speakers (India, Bangladesh).
- Materials : Gramm: abstract stems, SemViol and Fillers: Concrete stems, CatViol: adjectival stems

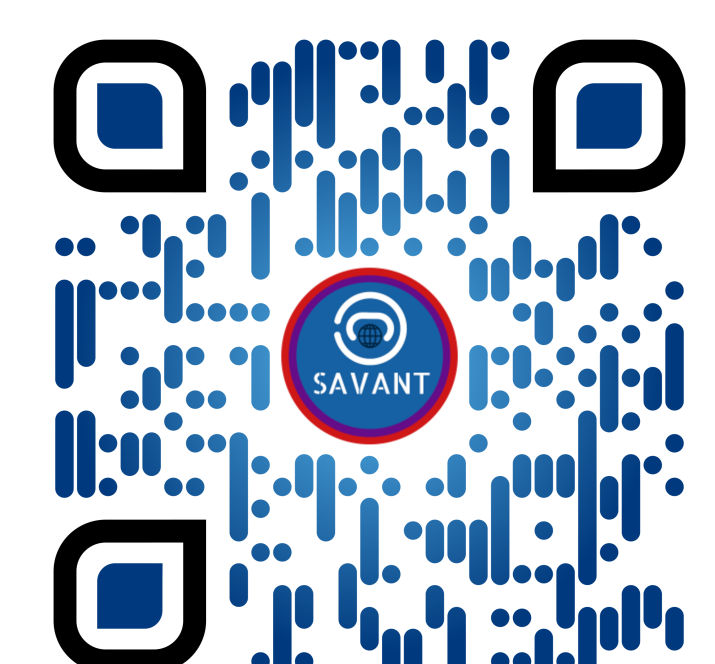
Prefix	Ungrammatical		Grammatical	
	SemViol	CatViol	Gramm	Fillers
prôti	*প্রতিরক্ত prôti-rôktô prôti-blood 'trans-blood'	*প্রতিনীল prôti-nîl prôti-blue 'trans-blue'	প্রতিহিংসা prôti-him̥sa prôti-violence 'revenge'	মানুষজন manuṣ-jôn people-CLF 'people'
duh / dur	*দুর্নাক dur-nāk duh-nose 'bad-nose'	*দুঃকালো duḥ-kalô duh-black 'bad-black'	দুর্ঘটনা dur-gʱôṭôna duh-event 'accident'	গাজরগুলো gajôr-gulo carrot-PL 'carrots'

### Discussion & Conclusion

- Contrary to previous findings, CatViol takes *longer* and is less *accurate* than Semviol for the prefix *duh* in Bangla.
- We get **opposite** results for *duh* and no differences for *prôti*.
- This could indicate the difference between noun-attaching and verb-attaching morphology.
- Alternatively, it could illustrate the relative salience of the argument/event type violations used in all the previous studies, and the abstract/concrete distinction used here.
- absence of effects for *prôti* could attest to its polysemy with quantifier 'every'

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<https://savant.qmul.ac.uk/>



### References

- [1] Schreuder, R et al. Morphological aspects of language processing (1995).
- [2] Manouilidou, C. Proceedings of the 7th International Conference on Greek Linguistics (2007).
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