

Syntactic Priming in SOV Languages: A Case Study in
Bengali

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Bengali

by

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THESIS CERTIFICATE

This is to certify that the thesis titled Syntactic Priming in SOV Languages: A Case Study in Bengali, submitted by Md Wasim Odud, to the Indian Institute of Technology, Delhi, for the award of the degree of Doctor of Philosophy, is a bona fide record of the research work done by him under my supervision. The contents of this thesis, in full or in parts, have not been submitted to any other Institute or University for the award of any degree or diploma.

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ABSTRACT

This thesis investigates the phenomenon of syntactic priming in Bengali, an SOV language, with a focus on how syntactic complexity and the parser’s expectations influence priming effects. Through a series of experiments, we explored the priming effects of various construction types in Bengali and the factors that modulate these effects.

Methodologically, we employed a sentence completion task (Pickering & Branigan, 1998) to examine the influence of prime structures on participants’ production of target sentences. This allowed us to measure the extent of priming for each construction type and compare the priming effects across different syntactic construction types.

Our findings consistently revealed that simpler structures exhibit stronger priming effects compared to more complex structures. Specifically, transitives and ditransitives demonstrated higher priming strength than three-argument and four-argument causatives. Moreover, canonical word orders and simpler non-canonical word-orders were primed more robustly than the more complex non-canonical word-orders. We also found that the subject relative clauses exhibited higher priming strength than the object relative clauses.

The ‘Prime-Target Structural Compatibility Hypothesis’ (Husain & Yadav, 2020) was introduced to interpret these patterns. This hypothesis suggests that the parser’s preference for simpler, more frequent structures plays a significant role on the priming effects. Since syntactically complex primes often result in a mismatch between the parser’s expectations and the activated prime structures, their priming strength gets significantly diminished.

These insights contribute significantly to our understanding of syntactic priming, particularly within SOV languages. They highlight the interaction between syntactic complexity and the processing expectations in modulating priming effects. The thesis concludes with a discussion of the implications of these findings for current syntactic priming models and proposes directions for future research.

सारांश

यह शोध बंगाली भाषा, जो एक विषय-वस्तु-क्रिया संरचना वाली भाषा है, में वाक्यात्मक प्राइमिंग की घटना की जांच करता है, जिसमें वाक्यात्मक जटिलता और पार्सर की अपेक्षाएँ प्राइमिंग प्रभावों को कैसे प्रभावित करती हैं, इस पर ध्यान केंद्रित किया गया है। विभिन्न कंस्ट्रक्शन प्रकारों के प्राइमिंग प्रभावों और इन प्रभावों को नियंत्रित करने वाले कारकों का पता लगाने के लिए हमने कई प्रयोग किए।

पद्धति के रूप में, हमने सेंटेंस कम्प्लीशन पैराडाइम का उपयोग किया, जिसमें प्राइम संरचनाओं के प्रतिभागियों के टार्गेट सेंटेंसेज़ के उत्पादन पर प्रभाव की जांच की गई। इसने हमें प्रत्येक कंस्ट्रक्शन प्रकार के लिए प्राइमिंग की सीमा को मापने और विभिन्न सेंटेंस कम्प्लीशन पैराडाइम प्रकारों में प्राइमिंग प्रभावों की तुलना करने की अनुमति दी।

हमारे निष्कर्षों ने लगातार यह दिखाया कि सरल संरचनाएं अधिक जटिल संरचनाओं की तुलना में अधिक मजबूत प्राइमिंग प्रभाव प्रदर्शित करती हैं। विशेष रूप से, ट्रांसिटिव्स और डिट्रांसिटिव्स अधिक प्राइमिंग शक्ति प्रदर्शित करते हैं, जबकि थ्री-आर्गुमेंट और फोर-आर्गुमेंट कॉज़ेटिव्स कम प्राइमिंग प्रभाव दिखाती हैं। इसके अलावा, कैनोनिकल वर्ड ऑर्डर्स और सरल नॉन-कैनोनिकल वर्ड ऑर्डर्स की तुलना में अधिक जटिल नॉन-कैनोनिकल वर्ड ऑर्डर्स को कम मजबूती से प्राइम किया गया था। हमने यह भी पाया कि सब्जेक्ट रिलेटिव क्लॉज़ेस ऑब्जेक्ट रिलेटिव क्लॉज़ेस की तुलना में अधिक प्राइमिंग शक्ति प्रदर्शित करते हैं।

इन पैटर्नों की व्याख्या करने के लिए 'प्राइम-टार्गेट स्ट्रक्चरल कम्पैटिबिलिटी हाइपोथेसिस' (हुसैन एवं यादव, 2020) प्रस्तुत की गई थी। यह परिकल्पना सुझाती है कि पार्सर की सरल, अधिक सामान्य संरचनाओं के लिए प्राथमिकता प्राइमिंग प्रभावों पर महत्वपूर्ण भूमिका निभाती है। चूंकि वाक्यात्मक रूप से जटिल प्राइम्स अक्सर पार्सर की अपेक्षाओं और सक्रिय प्राइम संरचनाओं के बीच असंगति पैदा करते हैं, इसलिए उनकी प्राइमिंग शक्ति काफी हद तक कम हो जाती है।

ये अंतर्दृष्टियां विशेष रूप से विषय-वस्तु-क्रिया भाषाओं में वाक्यात्मक प्राइमिंग की हमारी समझ में महत्वपूर्ण योगदान देती हैं। वे वाक्यात्मक जटिलता और प्राइमिंग प्रभावों को संशोधित करने में प्रोसेसिंग एक्सपेक्टेन्स के बीच की बातचीत को उजागर करते हैं। यह शोध वर्तमान वाक्यात्मक प्राइमिंग मॉडल्स के लिए इन निष्कर्षों के निहितार्थों पर चर्चा के साथ समाप्त होता है और भविष्य के अनुसंधान के लिए दिशाओं का प्रस्ताव करता है।

Contents

1	Syntactic Priming: A Case Study on Bengali	1
1.1	Introduction	1
1.2	What is Structural Priming? Early findings from Sociolinguistic Studies	3
1.3	What is Structural Priming? Experimental Evidence	3
1.4	What is Structural Priming? Corpus Evidence	6
1.5	Structural Priming at other Linguistic Levels	6
1.6	Details of Syntactic Priming	7
1.6.1	Mapping of Non-linguistic Messages to Syntactic Phrases	8
1.6.2	Levels of Grammatical Encoding	9
1.6.3	Nature of Syntactic Knowledge	11
1.7	The ‘Residual Activation Theory’ (Pickering and Branigan, 1998)	14
1.8	‘The Implicit Learning Hypothesis’ (Bock and Griffin, 2000; Bock et al., 2007)	17
1.9	Syntactic Priming in SOV languages	18
1.10	Properties of Bengali	22
1.10.1	Salient Syntactic Properties of Bengali	22
1.11	Overarching Research Question	24
1.11.1	What is Syntactic Complexity?	25
1.11.2	Relevance of the Research Question for Theories of Syntactic Priming	26
1.11.3	Implication of the Research Question for Production and Comprehension Mechanisms for SOV languages	27
1.11.4	Specific Research Questions	28

2	The Role of Argument Number on Syntactic Priming Effects	31
2.1	Introduction	31
2.2	Research Question and Overview	32
2.3	Transitive, Ditransitive, and Causative Constructions in Bengali	33
2.4	Experiments Overview	34
2.5	Predictions of the competing theories (‘Residual Activation theory’ vs. ‘Implicit Learning hypothesis’)	36
2.6	Experiment 1: Two-Argument Transitive vs. Two-Argument Causative Structure	37
2.6.1	Material and Method	37
2.6.2	Result	41
2.6.3	Discussion	42
2.7	Experiment 2: Three-Argument Ditransitive vs. Three-Argument Causative Structures	44
2.7.1	Material and Method	44
2.7.2	Result	45
2.7.3	Discussion	47
2.8	Experiment 3: Three-Argument Causative vs. Four-Argument Causative Structure	48
2.8.1	Material and Method	48
2.8.2	Result	49
2.8.3	Discussion	51
2.9	Experiment 4: Verb fronted Three-Argument vs. Verb fronted Four-Argument Causatives	51
2.9.1	Material and Method	52
2.9.2	Result	53
2.9.3	Discussion	54
2.10	General Discussion	54
3	The Role of Word-order on Syntactic Priming Effects	60
3.1	Introduction	60
3.2	Literature Review	61

3.2.1	The ‘linearization hypothesis’ (Hartsuiker et al., 1999)	62
3.3	Research Question	63
3.4	Experiment 5: S-V-DO-IO vs S-V-IO-DO	64
3.4.1	Material and Method	64
3.4.2	Prediction	66
3.4.3	Response Coding	66
3.4.4	Results	67
3.4.5	Discussion	68
3.5	Experiment 6: V-S-IO-DO vs V-DO-S-IO vs V-IO-DO-S	70
3.5.1	Material and Method	70
3.5.2	Prediction	71
3.5.3	Results	72
3.5.4	Discussion	72
4	Priming Effect for Noun Phrase Modification in Bengali	78
4.1	Introduction	78
4.2	Literature Review	79
4.3	Research Question	80
4.4	Experiment 7: SRC vs ORC	81
4.4.1	Material and Method	81
4.4.2	Prediction	84
4.4.3	Response Coding	84
4.4.4	Results	85
4.4.5	Discussion	87
5	The Role of the Target Fragment on Syntactic Priming Effects	90
5.1	Introduction	90
5.2	Prediction Vs Priming	92
5.3	The ‘Prime-Target Structural Compatibility Hypothesis’ (Husain and Yada- dav, 2020)	93
5.4	Research Question	94
5.5	Experiment 8: 2-Arg Target vs 1-Arg Target	95

5.5.1	Original Experiment Material and Method	96
5.5.2	Results	97
5.5.3	Revised Experiment Material and Method	97
5.5.4	Results	98
5.5.5	Discussion	99
5.6	Experiment 9: 3-Arg vs 2-Arg vs 1-Arg Target	101
5.6.1	Material and Method	101
5.6.2	Prediction	102
5.6.3	Response Coding	103
5.6.4	Results	103
5.6.5	Discussion	104
5.7	Experiment 10: PTSCH vs PTNAH	105
5.7.1	Predictions	107
5.7.2	Results	108
5.7.3	Discussion	108
6	An Integrated Framework	111
6.1	Introduction	111
6.2	The ‘Prime Target Generalized Compatibility Hypothesis’	112
6.3	Conclusion	114
	References	116

List of Tables

2.1	Predictions of the Residual Activation Theory and the Implicit Learning Hypothesis for the experiments in this chapter	37
2.2	Results of the glmer analysis for the 2 comparisions in Experiment 1. Treatment contrast was used with No-Prime condition as the baseline in all comparisions. Trans: Transitive; Caus: Causative; T.Prime: Transitive Prime; C.Prime: Causative Prime.	42
2.3	Results of the lmer analysis for third comparision in Experiment 1: increase in prediction strength due to the prime condition. Transitive Prime was the baseline. Trans: Transitive; Caus: Causative; T.Prime: Transitive Prime; C.Prime: Causative Prime.	43
2.4	Results of the glmer analysis for the 2 comparisions in Experiment 2. Treatment contrast was used in all comparisions with No-Prime condition as the baseline in the two comparisions. Ditrans: Ditransitive; Caus: Causative; DT.Prime: Ditransitive Prime; C.Prime: Causative Prime.	46
2.5	Results of the lmer analysis for the third comparision in Experiment 2: increase in prediction strength due to the prime condition. Ditransitive Prime was the baseline. Ditrans: Ditransitive; Caus: Causative; DT.Prime: Ditransitive Prime; C.Prime: Causative Prime.	47
2.6	Results of the glmer analysis for the 2 comparisions in Experiment 3. Treatment contrast was used in all comparisions with No-Prime condition as the baseline in the two comparisions. Arg: Argument; Caus: Causative; C.Prime: Causative Prime.	50

2.7	Results of the lmer analysis for the third comparision in Experiment 3: increase in prediction strength due to the prime condition. 3-Arg Causative Prime was the baseline. Arg: Argument; Caus: Causative; C.Prime: Causative Prime..	51
2.8	Results of the glmer analysis in Experiment 4. 3-Arg Causative Prime was the baseline. Arg: Argument; Caus: Causative; C.Prime: Causative Prime.	53
3.1	Results of the glmer analysis for the No-Prime vs S-V-IO-DO Prime comparison. Treatment contrast was used with the No-Prime condition as the baseline.	67
3.2	Results of the glmer analysis for the No-Prime vs S-V-DO-IO Prime comparison. Treatment contrast was used with the No-Prime condition as the baseline.	68
3.3	Results of the glmer analysis for the S-V-IO-DO Prime vs S-V-DO-IO Prime comparison. Treatment contrast was used with the S-V-IO-DO Prime condition as the baseline.	69
3.4	Results of the glmer analysis for the V-S-IO-DO vs V-DO-S-IO vs V-IO-DO-S Prime comparison. Treatment contrast was used with the V-S-IO-DO Prime condition as the baseline.	72
4.1	Results of the glmer analysis for the No-Prime vs SRC Prime comparison. Treatment contrast was used with the No-Prime condition as the baseline.	85
4.2	Results of the glmer analysis for the No-Prime vs ORC Prime comparison. Treatment contrast was used with the No-Prime condition as the baseline.	86
4.3	Results of the glmer analysis for the SRC Prime vs ORC Prime comparison. Treatment contrast was used with the SRC Prime condition as the baseline.	87
5.1	Distribution of Priming Success/Failure Percentages for No-Prime Vs Dis- transitive Prime	97

5.2	Distribution of Priming Success/Failure Percentages for No-Prime Vs Di- transitive Prime	99
5.3	Results of the glmer analysis for the 3-Arg Target vs 2-Arg Target vs 1-Arg Target comparision. Treatment contrast was used with the 3-Arg Target condition as the baseline.	104
5.4	Results of the glmer analysis for the 1-Word Target vs 2-Word Target comparision. Treatment contrast was used with the 1-Word Target con- dition as the baseline.	108

List of Figures

1.1	Representation of Syntactic Information at the Lemma level (Pickering & Branigan, 1998)	15
2.1	Verb Type Distribution in Bengali.	35
2.2	Percentage valid predictions for conditions. Baseline vs Transitive: Percentage prediction of transitive verb in No Prime vs Transitive Prime condition; Baseline vs Causative: Percentage prediction of causative verb in No Prime vs Causative Prime condition; Transitive vs Causative: Percentage increase in transitive verb prediction (due to Transitive prime) vs increase in causative verb prediction (due to Causative prime). Percentage values were computed by considering the number of valid completions out of all the completions in a particular condition.	41
2.3	Percentage valid predictions for conditions. Baseline vs Ditransitive: Percentage prediction of transitive verb in No Prime vs Ditransitive Prime condition; Baseline vs Causative: Percentage prediction of causative verb in No Prime vs Causative Prime condition; Ditransitive vs Causative: Percentage increase in ditransitive verb prediction (due to Ditransitive prime) vs increase in causative verb prediction (due to Causative prime). Percentage values were computed by considering the number of valid completions out of all the completions in a particular condition.	45

2.4	Percentage valid predictions for conditions. Baseline vs 3-arg Causative: Percentage prediction of 3-arg causative verb in No Prime vs 3-arg Causative Prime condition; Baseline vs 4-arg Causative: Percentage prediction of 4-arg causative verb in No Prime vs 4-arg Causative Prime condition; 3-arg Causative vs 4-arg Causative: Percentage increase in 3-arg causative verb prediction (due to 3-arg Causative prime) vs increase in 4-arg causative verb prediction (due to 4-arg Causative prime). Percentage values were computed by considering the number of valid completions out of all the completions in a particular condition.	49
2.5	Percentage valid predictions for 3-arg Causative and 4-arg Causative conditions. Percentage values were computed by considering the number of valid completions out of all the completions in a particular condition. . .	53
2.6	Response Distribution of Verb Types when Priming Fails	58
3.1	Response Distribution for No-Prime vs S-V-IO-DO prime.	67
3.2	Response Distribution for No-Prime vs S-V-DO-IO prime.	68
3.3	Response Distribution for S-V-IO-DO Prime vs S-V-DO-IO prime. . . .	69
3.4	Response Distribution for V-S-IO-DO vs V-DO-S-IO vs V-IO-DO-S Prime Conditions.	73
4.1	Response Distribution for No-Prime vs SRC Prime.	85
4.2	Response Distribution for No-Prime vs ORC Prime.	86
4.3	Response Distribution for SRC Prime vs ORC Prime.	87
5.1	Response Distribution for 3-Arg vs 2-Arg vs 1-Arg Target.	104
5.2	Response Distribution for 2-Word vs 1-Word Target.	109