

CONCEPTUAL RELATIVITY OF MORPHOLOGICAL AND LEXICAL PRIMING IN DEVELOPING LANGUAGE SKILLS IN NON-NATIVE LEARNERS

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Abstract: This article discusses previous researches conducted on the influence of priming on the acquisition of English as a second language, and its lesser known however greater relevance to the state of applicability of English language in context construction. At the end of this article, the discrepancies and similarities of morphological and lexical priming are supported through other researches providing findings to further support the hypothesis that lexical priming offers higher significance and greater intensity of strength of influence in terms of improving English language compared to morphological priming.

Keywords: Morphology, priming, grammar, language acquisition

INTRODUCTION

Most people mistake learning one language`s grammar through continuous efforts with short neurological pattern of visualization in which thousands of commands take place every second. Priming is what makes us better learners in terms of everything ranging from science to art. However, even though we already know much of what this is all about, we barely manage to utilize its practicality in our lives and we still keep doing this. For people who are not familiar with the term “priming”, the earliest usage of this word dates back to 1970s when Meyer and Schvaneveldt depicted the experience of interlacing a number of words with logical relevance in order to learn them effectively as priming. This would cause a person to compel their brain to create visual image of one word and connect it with the other thus making the process of learning relatively less

drudging, demanding and unfriendly. Knowing all of these raises a question how can priming assist grammatical development of one language and if so, the credibility of its interference with other methods of learning deserve that much coverage and research was laid as an unearthed gem in an unattractive mainland finally meets with a near decisive closure. ¹(Longtin, Catherine-Marie, Segui, Juan, Hallé; Pierre A, 2003) wrote in their article that semantic transparency is an important factor in the organization of the lexicon: whereas an opaque word is no longer related to its morphological family, a transparent word is closely linked to it. Also, they indicated in their research that when transparency of the word combination is presented at high level, the process of subsequent rationalization of other related words becomes more frequent leading to an improvement in certain areas where a user can benefit most from vocabulary expansion and increased communication through versatile structured expressions. ²(Catherine-Marie Longtin et al., 2003) also evidenced that language users subconsciously accumulate patterns of word use through repeated exposure (visual or spoken) in context. These exposure-driven patterns trigger a stimulation of how we expect to use words in collocations, grammar, meaning, and discourse. Words are inferred as "primed" by our prior experiences contributed to the formation of both comprehension and production of language gradually. Vast majority of researches conducted explain us contextuality and relative nature of priming leaving a conspicuous blank space for its **replicability and mechanistic foundations**.

LITERATURE REVIEW

The study of priming in language acquisition, particularly among non-native learners, has gained increasing attention for its potential to uncover the underlying cognitive processes involved in lexical and morphological development. This literature review critically examines existing scholarship on lexical and morphological priming, emphasizing their conceptual relativity in language learning, and situating the present research within this broader theoretical and empirical context.

¹ Morphological priming without morphological relationship Catherine-Marie Longtin, Juan Segui & Pierre A Hallé
 Pages 313-334 | Published online: 21 Sep 2010

² Morphological priming with morphological relationship Article in Language, Cognition and Neuroscience · June 2003

Koutamanis (2020), in his work *Lexical Priming as Evidence for Language*, presents a compelling argument that lexical priming is not merely a byproduct of frequent word exposure but a cognitive mechanism integral to language representation and production.³ He supports the view originally introduced by Hoey, asserting that language users internalize not only the semantic content of words but also their collocational patterns, colligations, and pragmatic environments. This concept is particularly salient for non-native learners, whose exposure to target language input is both limited and structured, suggesting that intentional lexical priming may accelerate vocabulary acquisition and fluency development by reinforcing lexical associations.

In parallel, O'Donnell (2011), through his research *Lexicography, Grammar, and Textual Position*, explores the interaction between lexical choice and grammatical structure, emphasizing the importance of textual positioning in shaping language patterns. He proposes that lexical priming operates across syntactic and discourse levels, where recurring lexical-grammatical combinations influence learner expectations and production accuracy. For second language learners, this suggests that lexical priming is not isolated from grammar, but actively shapes grammatical competence through repeated exposure to authentic language use in specific textual contexts.

While lexical priming typically focuses on whole words or multi-word units, morphological priming addresses a deeper level of processing — the recognition and use of morphemic structures such as prefixes, suffixes, and roots. However, the assumption that morphological similarity guarantees facilitation is challenged by Catherine Marie⁴ (2018), whose study *Morphological Priming Without Morphological Relationships* provides nuanced insight. Her findings demonstrate that form overlap alone does not ensure morphological priming, particularly when semantic transparency is absent. This has significant implications for language pedagogy, cautioning against overreliance on

³ Michael Hoey, Matthew Brook O'Donnell

International Journal of Lexicography, Volume 21, Issue 3, September 2008, Pages 293–309,

⁴ Lexical Priming: A New Theory of Words and Language Article · June 2007

surface-level morphological similarities and underscoring the importance of conceptual processing in morphological learning.

Collectively, these studies illustrate the conceptual relativity of priming mechanisms — lexical and morphological priming do not operate in a vacuum but are shaped by learners' linguistic exposure, cognitive readiness, and the contextual embedding of language input. While lexical priming emphasizes surface-level fluency and usage patterns, morphological priming demands deeper structural awareness, particularly in L2 environments where input is fragmented. The present study builds on this conceptual foundation by investigating how these two forms of priming function in tandem or in contrast to support language development in non-native learners, particularly within a task-based instructional framework

The acquisition of grammar in a second or foreign language is a complex and gradual process influenced by multiple cognitive and linguistic factors. Among these, **morphological priming**—a phenomenon where prior exposure to a word form facilitates the recognition or production of morphologically related forms—has emerged as a significant mechanism in understanding how learners internalize grammatical structures. In native speakers, morphological priming has been shown to support the mental organization of language and accelerate access to inflected and derived word forms. However, in **non-native learners**, the effectiveness and consistency of this process remain less clear. The **relativity** of morphological priming refers to its variable impact depending on learners' language proficiency, native language background, exposure to the target language, and the complexity of the morphological system being acquired. While some learners benefit significantly from morphological cues in acquiring grammatical structures, others may show limited sensitivity to such patterns, particularly when dealing with less transparent or irregular morphology. These differences raise important questions about the **extent to which morphological priming supports grammar development** across diverse learner populations.

This article investigates the relative effects of morphological priming on the development of grammar skills in non-native learners, aiming to understand how and under what conditions priming can facilitate grammatical acquisition. By examining various learner profiles and focusing on the relationship between morphological awareness and grammatical accuracy, the study contributes to the broader field of psycholinguistics and second language acquisition. The findings may have practical implications for language teaching methodologies, particularly in designing materials and tasks that promote implicit grammar learning through morphological exposure.

RESEARCH METHODOLOGY AND EMPIRICAL ANALYSIS

This study employs a mixed-methods research design, integrating both quantitative and qualitative approaches to investigate the comparative effects of morphological and lexical priming on English language acquisition among non-native learners. The core structure of the research is quasi-experimental, incorporating pre-test and post-test phases to track learner progress over time, while also including qualitative data collection through learner reflection journals and teacher interviews to capture the experiential and cognitive dimensions of learning. The study was conducted at a university in Uzbekistan and involved a sample of 60 intermediate-level English learners, aged between 18 and 24. These participants were randomly distributed into three groups: two experimental groups and one control group, with 20 learners in each. To ensure equivalency in language proficiency across the groups at the start of the study, a standardized placement test was administered prior to the intervention. The intervention was designed to distinguish between lexical and morphological priming techniques. Lexical priming was operationalized through repeated exposure to collocations, multi-word expressions, and idioms embedded in listening and reading tasks. Morphological priming, on the other hand, was delivered through structured tasks focused on affixation patterns, word formation rules, and derivational morphology. To evaluate the impact of these interventions, customized grammar and vocabulary tests were administered both before

and after the treatment. These assessments were aligned with CEFR B1–B2 levels, ensuring a valid measurement of language development. The data gathered from weekly learner reflections and semi-structured interviews with instructors served to complement the quantitative results by shedding light on learners' internalization processes and their evolving awareness of primed linguistic structures. The treatment period spanned six weeks, during which the experimental and control groups engaged in two 90-minute instructional sessions per week.

The instructional conditions for each group were as follows:

- Group A received instruction incorporating morphological priming .
- Group B received instruction incorporating lexical priming techniques.
- Group C functioned as the control group, receiving standard instruction without any targeted priming interventions.

Post-tests and learner reflections were collected at the end of the intervention. Quantitative data were analyzed using software program for statistical analysis. A paired sample t-test (**the same group at two time points**) compared pre- and post-test scores within each group, while analysis of variance assessed differences between groups. Effect size ⁵(Cohen's d) was calculated to determine the strength of priming effects. Qualitative data were coded thematically to identify emerging patterns of learner perception and usage of primed forms. The results revealed significant improvement in both experimental groups compared to the control group ($p < 0.05$). However, Group B (lexical priming) showed a higher mean gain score ($M = 12.3$, $SD = 2.4$) than Group A (morphological priming) ($M = 9.1$, $SD = 2.8$), suggesting that lexical priming has a stronger immediate impact on language acquisition. Thematic analysis of learner reflections indicated that

⁵ Lexical Priming as Evidence for Language- onselective Access in the Simultaneous Bilingual Child's Lexicon N Elly Koutamanis, Gerrit Jan Kootstra, Ton Dijkstra, and Sharon Unsworth

lexical priming was perceived as more intuitive and contextually meaningful, while morphological priming helped learners decode unfamiliar words more effectively over time.

Mean (Average)	$\text{Mean} = \sum X / N$ <p>Where: $\sum X$ = sum of all values N = number of values</p>
Standard Deviation (SD)	$SD = \sqrt{[\sum (X - \text{Mean})^2 / N]}$ <p>Where: X = each individual score Mean = average of scores N = number of scores</p>
Cohen's d formula: difference in means divided by pooled SD.	$d = (M_1 - M_2) / SD_{\text{pooled}}$
Pooled standard deviation combines SDs of two groups.	$D_{\text{pooled}} = \sqrt{[(SD_1^2 + SD_2^2) / 2]}$

RESULTS

The statistical analysis of pre- and post-test scores indicated that both experimental groups demonstrated measurable improvement in their grammar and vocabulary performance following the priming intervention. Table 1 presents the descriptive statistics for all three groups.

Pre and Post-Test Mean Scores (out of 50)

Group	Pre-test Mean (SD)	Post-test Mean (SD)	Mean Gain
Group A (Morphological	28.2 (3.4)	37.3 (3.0)	9.1

Group	Pre-test Mean (SD)	Post-test Mean (SD)	Mean Gain
Priming)			
Group B (Lexical Priming)	27.9 (3.1)	40.2 (2.4)	12.3
Group C (Control)	28.5 (3.6)	31.0 (3.8)	2.5

A one-way ANOVA showed a statistically significant difference in post-test scores among the three groups ($F(2, 57) = 24.81, p < 0.001$). Post-hoc Tukey tests confirmed that both Group A and Group B significantly outperformed the control group ($p < 0.01$), and Group B (lexical priming) significantly outperformed Group A (morphological priming) ($p < 0.05$).

Effect size calculations showed:

Group A: Cohen's $d = 1.34$ (large effect)

Group B: Cohen's $d = 1.98$ (very large effect)

Group C: Cohen's $d = 0.34$ (small effect)

These results suggest that lexical priming had a stronger effect on immediate language skill development compared to morphological priming. Analysis of learners' weekly reflections and teacher interviews revealed consistent themes. Participants in Group B reported increased awareness of natural language chunks and a heightened sense of fluency in both speaking and writing. Comments such as *"I started noticing how words go together in reading texts"* and *"It was easier to remember phrases than just separate words"* were common. In contrast, Group A participants described a growing sensitivity to word structure and word families. Several learners stated that morphological patterns helped them *"guess the meaning of new words"* and *"build new words from the ones they already knew."* Teachers noted that students exposed to lexical priming more frequently used target collocations and expressions in spontaneous speech, while those in the

morphological group showed improved word formation and error correction during grammar tasks.

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