



Lexical Gaps and Bilingual Minds

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ABSTRACT

Language is a central vehicle for human thought and social life. Lexical gaps—instances in which a language lacks a direct, single-word equivalent for a concept that exists in another language—provide a unique vantage point for examining the interplay of language, cognition, and culture. This paper explores perspectives from linguistic relativity, cognitive linguistics, and cultural linguistics to show how lexical gaps operate as vantage points for the study of conceptualization in bilingual minds. Building on classical and contemporary work (Whorf, 1956; Lakoff & Johnson, 1980; Hymes, 1972; Pavlenko, 2014), the paper proposes the Lexical Mediation Model: a framework that characterizes lexical gaps as mediating phenomena with cognitive, cultural, and linguistic manifestations. The model foregrounds processes such as conceptual prominence, lexical compensation strategies (borrowing, calquing, paraphrase), and dynamic reorganization of the bilingual lexicon. It further outlines its practical implications. The goal is to offer an account of how the absence of single-word equivalents shape mental representations, communicative strategies, and cultural transmission in bilingual contexts.

Introduction

A lexical gap occurs when speakers of one language have a readily available lexical item for a concept while speakers of another language must approximate that concept through periphrasis, borrowing, metaphorical extension, or other compensatory strategies. These gaps are not mere lexical trivia; they



expose where conceptual repertoires diverge, where cultural histories have created differences, and where cognitive habits are shaped by repeated linguistic practice.

Historically, debates about the cognitive consequences of language have oscillated between strong and weak formulations. The more deterministic readings of the Sapir–Whorf hypothesis suggested that language shapes thought; subsequent research complicated this picture, revealing more fluid interactions between linguistic expression and cognitive processes. Nevertheless, lexical gaps remain an empirical locus for investigating how languages carve experience into segmentable, communicable units. They invite questions about whether the absence of a lexical item corresponds to absence or reduction in effectiveness of a concept, or whether speakers develop alternative strategies (semantic breakdown, borrowing, or code-switching) that preserve conceptual richness.

This paper advances an integrative account of the three major theoretical positions—linguistic relativity, cognitive linguistics, and cultural linguistics—we evaluate their strengths and limitations in explaining lexical gaps. We then introduce the Lexical Mediation Model, which synthesizes these positions and specifies mechanisms through which lexical gaps exert cognitive and social influence. In doing so, we aim for conceptual clarity. The discussion elaborates the existing argument rather than introducing tangential issues, and it situates the argument using examples of various languages (Punjabi, Japanese, Portuguese and German etc.) in ways that are directly relevant to bilingual cognition.

Theoretical Perspectives on Lexical Gaps

1. Linguistic Relativity

The Sapir–Whorf hypothesis contends that language can shape — and in stronger versions, determine — habitual thought and perception. Whorf's classic formulations emphasized how grammatical and lexical categories guide attention and inference. Lexical gaps are often perceived as evidence for a form of weaker linguistic relativity: if a language does not lexicalize a particular nuance, speakers may be less likely to attend to or encode that nuance in the moment-to-moment processing of experience.

Empirically, evidence for this claim is mixed but informative. Experimental work shows that lexical availability can influence categorization and memory: for instance, languages with multiple basic color terms for a region of the spectrum tend to show finer-grained discrimination along those spectral boundaries, relative to languages with fewer color terms. By analogy, the absence of a single lexical item for a complex emotional state (e.g., Portuguese *saudade*, German *Schadenfreude*) could reduce the



fluency with which that emotion is labelled and, at times, accessed in discourse. However, the relationship is probabilistic rather than deterministic. Speakers compensate by paraphrase or by invoking situational descriptions, and cognitive availability of a concept may remain intact despite lexical gaps.

Linguistic relativity therefore contributes a cautionary but compelling perspective: the lexicon participates in shaping habitual attentional patterns. Where a language lacks a concise label, speakers will show different patterns in how they talk about and perhaps momentarily attend to that conceptual domain. Crucially, however, relativity leaves open the mechanisms of compensation and cross-linguistic transfer — matters addressed by cognitive and cultural approaches.

2. Cognitive Linguistics

Cognitive linguistics emphasizes the correspondence between linguistic structure and underlying conceptual organization. From this perspective, lexical gaps reveal which categories are cognitively salient and the level of detail with which particular cultures and languages partition experience. Concepts that are frequently activated and socially reinforced are more likely to be lexicalized; rarer or less culturally prioritized distinctions remain at the level of phrase or construction.

For example, the emotion encoded by the Punjabi term *ਚੜ੍ਹਦੀਕਲਾ* can be interpreted as — positive outlook in the face of adversity — which English speakers may express via metaphorical language or multi-word paraphrases rather than a single lexical item. The cognitive-linguistic approach predicts that when confronted with a concept lacking a ready lexical equivalent, speakers will recruit existing schemas and metaphors to reconstitute the meaning in language. This is a dynamic process: over time, repeated recruitment can lead to grammaticalization or the emergence of a new lexical item in the receptor language.

Cognitive linguistics also highlights the role of usage frequency. Frequent communicative needs drive lexical innovation and stabilization. Thus, the existence of a lexical gap in one language but not another often reflects differing life experiences, social practices, and discursive routines that make certain semantic distinctions salient and reusable.

3. Cultural Linguistics

Cultural linguistics foregrounds the idea that languages encode cultural elements and collective knowledge. Hymes' notion of communicative competence and ethnopoetics suggested that language is a



repository for cultural meaning; lexical gaps, then, are artifacts of cultural difference. Words such as wabi-sabi (Japanese aesthetic appreciation of imperfection and transience) or ਰੌਣਕ (Punjabi term for positive and vibrant energy created due to hustle and bustle at a certain place) package culturally salient value-laden aspects that are often difficult to reduce to simple cross-linguistic equivalents.

From a cultural-linguistic perspective, lexical gaps should be read as signals: they indicate areas where a community has developed dense, conventionalized patterns for attending to and evaluating experience. The absence of a direct translation elsewhere points to a different cultural weighting of that domain. Crucially, cultural linguistics emphasizes that translation is not solely a linguistic act but a cultural negotiation: to render wabi-sabi or ਰੌਣਕ in another language requires conveying not just denotational content but also culturally embedded evaluative frames.

This approach complements cognitive linguistics by adding a socio-historical dimension: why did one community lexicalize a concept while another did not? The answers frequently point to differing material histories, aesthetic practices, religious and moral sensibilities, and institutional structures that make certain categories communicatively necessary.

Evaluation of Theories

Each theoretical stance contributes essential but partial insights. Linguistic relativity alerts us to the directional force of lexicalization on attention and categorization, but it risks overgeneralization if treated as deterministic. Cognitive linguistics supplies explicit mechanisms (schematization, metaphor recruitment, prototype structure) through which meaning is assembled in language, yet it can underplay socio-historical contingency. Cultural linguistics supplies that contingency but may under-specify cognitive mechanisms by which speakers actually perform compensatory lexical operations in real time.

A complete account of lexical gaps therefore benefits from integration. Integration also helps avoid category errors: assuming that lack of a single lexical item implies absence of the underlying concept, or conversely, assuming that lexical presence guarantees identical cognitive structure across speakers.

Moreover, bilingualism complicates the picture in productive ways. Bilingual speakers routinely navigate lexicons with asymmetric lexicalization patterns. They engage in code-switching, borrowings, and language choice as strategies to access lexical items that are absent or underspecified in one language. These behaviors reveal that concepts can be distributed across languages in the bilingual mind, rather



than residing exclusively in one language's inventory. This distributional property underlies many of the predictions developed below.

Proposed Framework: The Lexical Mediation Model

The Lexical Mediation Model reframes lexical gaps as mediating phenomena with three interacting channels: cognitive, cultural, and linguistic. The model identifies mechanisms within each channel while emphasizing their interdependence.

1. Cognitive Mediation: Salience, Accessibility, and Representation

Cognitive mediation addresses how a lexical gap affects the salience and accessibility of a concept in real-time processing. When a language lacks a single-word equivalent, speakers may show differences in (a) speed of lexical access for communicative tasks related to that concept, (b) memory encoding for events involving that concept, and (c) the granularity of categorization in non-linguistic tasks. These differences are expected to be graded and contingent on experience: bilinguals who regularly use the language with the lexicalized term will display access and categorization patterns more like monolingual speakers of the lexicalizing language.

The model proposes that lexical gaps reduce lexical entrenchment in a given language: if there is no single retrieval node associated with the concept, and retrieval becomes more reliant on compositional and contextual cues. This can increase processing load, favor longer reaction times in lexical decision tasks, and increase dependence on discourse context for disambiguation.

2. Cultural Mediation: Norms, Values, and Communicative Necessity

Cultural mediation accounts for why some concepts become lexicalized and others do not. The model posits that lexicalization correlates with communal salience and repetition: cultural practices that foreground a domain create repeated selection pressure for a concise lexical signal. When a concept is central to ritual life, moral judgment, or aesthetic practice, communities tend to develop lexicalized forms that condense complex schemata into a single conventional sign (Lexical Unit).

If speakers of a language without a lexical item are repeatedly exposed to speakers of a language that lexicalizes that concept, borrowing is likely. The resulting loanword can carry with it cultural connotations; that is, adoption of a lexical item often brings along cultural frames that may then be reinterpreted locally.



3. Linguistic Mediation: Compensation Strategies and Lexical Innovation

Linguistic mediation specifies how languages and speakers adapt to fill gaps. The model identifies several recurring strategies:

- a. Periphrasis and paraphrase. Speakers deploy multi-word constructions (e.g., "a feeling of nostalgic longing for someone or something absent") to approximate a lexicalized concept.
- b. Borrowing and calquing. Receptor languages may import a lexical item wholesale (loanword) or translate its components literally (calque).
- c. Semantic extension. Existing lexical items may broaden to cover the new meaning without creating a new form.
- d. Compounding and derivation. New lexical items can be created by productive morphological processes.
- e. Code-switching as strategic retrieval. Bilingual speakers may switch languages within discourse to access a matrix lexical item unavailable in the other language.

These mechanisms are not mutually exclusive and can operate on different time scales. Short-term strategies (paraphrase, code-switching) allow individual speakers to communicate immediately, while long-term processes (borrowing, grammaticalization) reshape the lexicon across generations.

Bilingual Mental Lexicon: Distribution and Integration

The model adopts a view of the bilingual lexicon as interconnected yet partially distributed: concepts can have stronger links in one language and weaker or composite links in the other. This distribution has measurable consequences. For instance, cross-language priming studies show that activation of a concept in one language can facilitate retrieval in the other if the underlying conceptual representation is shared or strongly linked. Conversely, when a concept is lexicalized in only one language, bilinguals may exhibit asymmetric priming or preferential use of the lexicalizing language to discuss that concept.

The Lexical Mediation Model thus predicts a set of empirical patterns: bilinguals will tend to (a) use loanwords or calques when communicating with interlocutors who share the relevant language background, (b) deploy periphrasis more frequently when discussing the concept in the non-lexicalizing



language, and (c) show faster processing and greater fluency when operating in the language where the concept is lexicalized.

Implications

The Lexical Mediation Model carries practical and theoretical implications across multiple domains.

Linguistics and Lexicography

Lexicographers should treat lexical gaps not as mere absence but as dynamic sites of potential innovation. Dictionaries and bilingual lexicons can better represent concepts by cataloguing paraphrases and cultural notes, rather than offering single-word glosses that risk oversimplification.

Psycholinguistics

Experimental work can operationalize the model's predictions. Reaction-time studies and memory encoding tasks can probe how lexical gaps affect processing. Additionally, neuroimaging studies could examine whether conceptual retrieval for lexicalized versus non-lexicalized concepts recruits different neural circuits or engages differing degrees of prefrontal control when speakers perform compensatory paraphrase.

Translation

Translators should treat lexical gaps as sites of negotiation. Rather than seeking a one-to-one equivalence, translation strategies might foreground domestication vs. foreignization: should a translator insert a loanword with cultural commentary, attempt a paraphrase that preserves function.

Bilingual Education and Language Policy

Educational programs for bilingual learners can leverage awareness of lexical mediation. Teaching strategies that present culturally loaded lexical items alongside discursive frames and contextualized usage will support deeper conceptual learning. Language policies that prioritize glossaries and curricular materials for culturally significant terms can foster cross-cultural competence.

Conclusion

Lexical gaps are vantage points of language, thought, and culture. They reveal not only where languages differ in their inventories but also how speakers and communities adapt to those differences. The Lexical



Mediation Model synthesizes insights from linguistic relativity, cognitive linguistics, and cultural linguistics to characterize lexical gaps as mediating phenomena with cognitive, cultural, and linguistic dimensions. The model clarifies mechanisms of compensation (paraphrase, borrowing, extension), predicts measurable patterns in bilingual processing and discourse, and offers a practical outline for lexicography, translation and education etc. By treating lexical gaps as generative intersections rather than mere absences, we can better understand how languages partition human experience and how bilingual speakers navigate and restructure conceptual space.

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