

A Contrastive Study of Directional Lexemes in Mandarin and Malay

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DOI: <https://doi.org/10.47772/IJRISS.2026.100801092>

Received: 07 September 2026; Accepted: 12 September 2026; Published: 25 September 2026

ABSTRACT

Directional lexemes constitute a core lexical category encoding spatial relations within human linguistic systems, serving as a critical interface between linguistic signs and spatial cognition. Mandarin (Sino-Tibetan language family) and Malay (Austronesian language family) belong to typologically distinct linguistic lineages. While their directional-lexeme systems conform to universal principles of human spatial cognition, they exhibit notable idiosyncrasies conditioned by disparities in syntactic structure, conceptual frameworks and socio-geographic contexts. As a specialised subset of locative categories dedicated to orientational reference, directional lexemes represent a persistent source of difficulty in bilingual communication, translational practice and second-language pedagogy.

This paper undertakes a systematic investigation of directional lexemes in Mandarin-Malay, drawing on contrastive analysis and cognitive linguistics' spatial frame-of-reference theory. Comparisons are conducted across four analytical dimensions: categorical taxonomy, semantic properties, syntactic behaviour and pragmatic conventions. Situated within the bilingual sociolinguistic milieu of Malaysian Chinese communities, this study identifies cross-linguistic correspondences, catalogues recurrent learner interlanguage errors, and advances pedagogical interventions. It seeks to furnish empirical and theoretical references for Malay-Mandarin bilingual instruction, cross-linguistic translation and contrastive linguistic scholarship.

Keywords: Mandarin, Malay, directional lexemes, locative lexemes, contrastive analysis, spatial cognition, bilingual pedagogy

INTRODUCTION

Research Background

Space constitutes a fundamental experiential dimension for human beings. Orientation, a foundational component of spatial cognition, is linguistically encoded through directional-lexeme systems that perform indispensable functions in spatial description, conceptualisation and semantic transfer across languages.

Malaysia is a multicultural polity where Mandarin and Malay function as dominant vehicular languages, giving rise to a unique bilingual sociolinguistic ecology. L1-Malay learners of Mandarin frequently produce interlanguage errors stemming from structural divergences between the two languages' directional inventories. In scholarly domains including Malay-Chinese translation and Malaysian-Chinese sociocultural inquiry, mistranslation of directional lexemes may induce substantial semantic distortion. For instance, the Mandarin lexeme *qian* (front) encodes spatial, temporal and logical meanings, each requiring distinct lexical realisations in Malay; literal calques accordingly yield ill-formed target-language output.

Prior scholarship has laid preliminary groundwork for comparative research on Mandarin-Malay spatial vocabulary. Nevertheless, targeted systematic analyses centred specifically on directional lexemes remain under-developed, particularly empirical work grounded in Malaysia's local sociolinguistic realities. Against this backdrop, a fine-grained contrastive examination of Mandarin and Malay directional lexemes carries tangible practical relevance.

Research Significance

The present study augments contrastive-linguistic literature spanning the Sino-Tibetan and Austronesian phyla. By decoupling directional lexemes from the broader locative category for specialised scrutiny, it refines the analytical scope of spatial-lexicon research. Applying cognitive-linguistic frameworks to unpack semantic-mapping mechanisms of directional forms across both languages, this paper contributes empirical case material for cross-family investigations of human spatial conceptualisation.

Research Scope and Definition of Core Constructs

Research Scope

This investigation focuses primarily on core lexemes encoding eight cardinal spatial orientations (up-down, front-back, left-right, east-south-west-north). It also includes a limited set of closely-related locative items frequently grouped with directional expressions in Mandarin descriptive grammar, while excluding peripheral locative items and complex locative constructions.

The dataset consists of three source categories: (1) normative written corpora: published modern Mandarin and Malay texts; (2) pedagogical materials: locally used Mandarin-for-foreigners textbooks and Malaysian Malay school resources; (3) naturalistic conversational tokens from Malaysian-Chinese bilingual communities. Purposive sampling is adopted. Inclusion-exclusion rules and qualitative-coding procedures are specified in Section 1.4.

Definition of Core Constructs

Locative lexemes: an umbrella category covering lexical forms encoding spatial positions and relations, comprising two sub-classes: positional lexemes and directional lexemes.

Directional lexemes (operationalized for this study): lexical items prototypically encoding eight cardinal spatial orientations relative to a reference point. In traditional Mandarin grammar, positional lexemes *lǐ* “inside”, *nèi* “inner”, *zhōng* “middle” are customarily grouped with directional lexemes. This paper retains them in the inventory but treats them analytically as positional-locative items instead of pure cardinal-orientation lexemes.

Research Methodology

This study adopts a qualitative-oriented contrastive-analytical framework. We compare categorical-taxonomic, semantic, syntactic and pragmatic properties of Mandarin and Malay directional lexemes.

Data-processing procedures: We manually extract directional-related usage tokens from the three data sources. Inclusion criteria: utterances with explicit spatial reference. Exclusion criteria: idiomatic fossilised expressions where directional lexemes lose independent spatial meaning. Extracted tokens are coded along four dimensions: taxonomy, semantic mapping, syntactic function, pragmatic context. Learner interlanguage deviations are identified by comparing attested tokens against authoritative grammatical benchmarks (Lü Shuxiang, Zhu Dexi for Mandarin; *Tatabahasa Dewan* for Malay).

Analysis workflow: construct delineation → theoretical framework establishment → corpus-supported cross-linguistic comparison → conclusion and pedagogical-implication formulation grounded in observed interlanguage patterns.

LITERATURE REVIEW

Linguistic research on Mandarin locative lexemes originated in the 1950s. Lü Shuxiang’s *Eight Hundred Words of Modern Chinese* delivered the first systematic account of Mandarin locative classification and usage, classifying items such as *qian* (front), *hou* (back), *zuo* (left), *yóu* (right) as simple locative lexemes. Canonical works include Lü Shuxiang’s *Problems in Chinese Grammatical Analysis*, Zhu Dexi’s *Lectures on Chinese Grammar*, and Huang Borong & Liao Xudong’s *Modern Chinese*.

The authoritative prescriptive grammar *Tatabahasa Dewan* serves as the foundational reference for Malay syntactic description. Compiled under chief-editorship of Nik Safiah Karim and published by Dewan Bahasa dan Pustaka, it forms the normative standard for Malaysian official language use. The same institution publishes *Kamus Dewan*.

Within contrastive and interlanguage-error research, scholars including Zheng Jinghua (2015), Lin Weisheng (2019), and Suhaila & Norazlina (2019) note that structural mismatches between Malay “preposition + pre-locative” patterns and Mandarin post-nominal locative frames trigger L1 negative transfer among Malay-L1 Mandarin learners. Chen Jiamin (2018) and Huang Wenxing (2020) examine typological syntactic divergences. From a cognitive-linguistic perspective, Zhang Li (2016) and Teo & Wong (2018) investigate metaphorical mapping of front-back onto temporal domains. Goh Sang Seong (2011, 2012) discusses translation-related transformational rules for prepositional-locative constructions.

Nevertheless, existing scholarship mostly subsumes directional lexemes under broad locative categories, with few micro-level analyses addressing Malaysia’s bilingual context. This study treats directional lexemes as an independent analytical category and carries out four-dimensional contrast based on spatial frame-of-reference theory and bilingual data, to derive pedagogical recommendations.

Contrastive Taxonomy Of Directional Lexemes In Mandarin And Malay

Taxonomic classification provides the analytical foundation for contrastive inquiry. Owing to typological differences, Mandarin and Malay diverge in classificatory logic, taxonomic coverage and lexical morphosyntax. This chapter compares basic directional lexemes and derived or extended constructions.

Taxonomy of Mandarin Directional Lexemes

Mandarin directional lexemes centre on monosyllabic simple roots; generating compound forms by morphological derivation.

Simple Directional Lexemes (Core Inventory)

Drawing on Zhu Dexi’s *Lectures on Chinese Grammar*, fourteen simple locative-directional roots constitute the traditional foundational inventory: shàng (up), xià (down), qián (front), hòu (back), lǐ (inside), nèi (inner), zhōng (middle), zuǒ (left), yòu (right), dōng (east), xī (west), nán (south), běi (north). Among them, twelve encode eight cardinal spatial orientations; lǐ, nèi, zhōng are positional-locative lexemes without cardinal-orientation meaning.

Semantic grouping:

1. Relative lexemes (reference-dependent): shàng, xià, qián, hòu, zuǒ, yòu, lǐ, nèi, zhōng.
2. Absolute directional lexemes (geographically anchored): dōng, xī, nán, běi.

These monosyllabic roots show high token frequency in spoken and written registers.

Compound Directional Lexemes (Morphological Derivations)

Simple directional roots take affixes yǐ, biān, miàn, tóu to form compounds.

1. Prefix-derived compounds: e.g. yǐshàng, yǐxià, yǐqián, yǐhòu, yǐdōng, yǐxī.
2. Suffix-derived compounds: e.g. qiánbiān, hòumiàn, zuǒbiān, yòucè, dōngmiàn, běibiān.

Compound directional lexemes retain core denotation but exhibit more constrained syntactic behaviour and prevail in written registers.

Collocational Directional Constructions (Context-driven Expansions)

Mandarin directional lexemes frequently combine with prepositions: e.g. zài ... qiánmiàn (in front of ...), xiàng ... zuǒbiān (towards the left ...). Such prepositional phrases represent major surface realisation of directional lexemes.

Taxonomy of Malay Directional Lexemes

Malay directional inventory is dominated by polysyllabic simple lexemes. According to *Tatabahasa Dewan*, directional meanings are mainly expanded via syntactic phrasing rather than derivational morphology.

Basic Directional Lexemes (Core Inventory)

Core orientational items: atas (up), depan (front), belakang (back), kiri (left), kanan (right), timur (east), barat (west), selatan (south), utara (north).

1. Relative directional lexemes: atas, depan, belakang, kiri, kanan.
2. Absolute directional lexemes: timur, barat, selatan, utara.

These lexemes are multi-syllabic and morphologically invariable.

Compound Directional Constructions

Extended orientational meaning is realised via two phrasal patterns:

1. Preposition + basic directional lexeme: di depan, ke kiri, menuju utara.
2. Basic directional lexeme + noun: timur Malaysia, belakang rumah.

These phrases serve as the primary vehicles for directional predication in Malay.

Summary of Taxonomic Comparison

Table 1. Taxonomic comparison between Mandarin and Malay directional lexemes

Analytical Dimension	Mandarin Directional Lexemes	Malay Directional Lexemes
Lexical level: Core Morphology	Predominantly monosyllabic simple roots	Predominantly polysyllabic simple lexemes
Lexical level: Word-formation Productivity	High (derivation via prefixation / suffixation)	Low; semantic expansion realised mainly through syntax
Phrasal-construction level: Expansion Hierarchy	Three-tiered: basic-derived-collocational	Two-tiered: basic-collocational
Lexical-semantic level: Taxonomic Scope	Eight core lexemes covering eight cardinal orientations	Eight cardinal-orientation categories

Semantic properties and pragmatic conventions are discussed descriptively in Section 4 and 6 and are not tabulated here.

Contrastive Semantic Properties of Mandarin-Malay Directional Lexemes

Semantic properties constitute the definitional attribute of directional lexemes. Mandarin and Malay show convergences and divergences in core denotation, semantic boundaries and semantic extension. This chapter draws on image-schema theory.

Core Denotation: Correspondence and Mismatch

Full Correspondence: Semantic Equivalence

Left-kiri, right-kanan, east-timur, west-barat, south-selatan, north-utara demonstrate stable translational equivalence under objective geographic reference.

Partial Correspondence: Semantic Overlap

Front / back constitute major difficulty points for learners.

Mandarin qian (front) vs. Malay depan

Shared spatial denotation; qian extends to temporal and logical meanings which require separate lexical items in Malay. Mandarin hou (back) vs. Malay belakang. Shared spatial denotation; hou carries temporal and causal senses not available for belakang.

Zero Correspondence: Language-specific Semantic Domain

Malay dekat (near) and jauh (far) are adjectives, not classified as directional lexemes in Mandarin. Mandarin encodes proximity by combining locative forms with adjectives.

Divergent Semantic Boundary Delimitation

Boundary Variation under Relative Reference Frames

Mandarin adopts both deictic (speaker-centred) and intrinsic (object-centred) reference frames. Malay relies heavily on intrinsic object-based reading. For example, depan kereta primarily refers to the intrinsic front portion of a vehicle. Speaker-oriented reading requires paraphrastic expressions.

Boundary Variation under Absolute Reference Frames

East-west-south-north follow objective geographic anchoring in both languages. Socio-geographically conventionalised pairs exist: Malaysia Timur = Dong Ma; Malaysia Barat = Xi Ma.

Divergent Pathways of Semantic Extension

Mandarin directional lexemes frequently extend from spatial domain onto time and abstract conceptual domains. In Malay, such cross-domain metaphorical projection is less common for directional lexemes; non-spatial senses are typically expressed by separate vocabulary items.

Summary of Semantic Comparison

Mandarin directional lexemes exhibit richer cross-domain semantic-extension potential compared with Malay directional lexemes.

Contrastive Syntactic Behaviour of Mandarin-Malay Directional Lexemes

Syntactic behaviour describes how directional lexemes function in clause structures. Differences are observable between isolating-type Mandarin and agglutinative-type Malay.

Syntactic Function Inventory

Syntactic Functions of Mandarin Directional Lexemes

Mandarin directional lexemes are polyfunctional. They can serve as subject, object, attributive and adverbial.

Attributive and adverbial usages are more frequent than bare-lexeme subject or object.

Syntactic Functions of Malay Directional Lexemes

According to descriptions in *Tatabahasa Dewan*, bare Malay directional lexemes rarely operate as independent syntactic constituents in standard written Malay. They most commonly appear within prepositional or nominal phrases to function as attributives or adverbials. Examples:

Dia berjalan ke kiri.

Rumah di belakang sekolah.

Subject-position or object-position occurrences of bare directional lexemes are uncommon in normative writing.

Combinatorial Constraints

Prepositional Combinations

Mandarin directional lexemes combine flexibly with different prepositions. In Malay, prepositions *di*, *ke*, *menuju* follow established subcategorisation pattern with directional lexemes (*Tatabahasa Dewan*).

Verbal Combinations

In standard Malay, bare directional lexemes seldom adjoin verbs directly; directional meaning is usually realised via prepositional phrases. In Mandarin, directional lexemes can occur as verb complements or pre-verbal adverbials.

Nominal Combinations

Mandarin follows the pattern Noun + Directional-lexeme. Malay favours Directional-lexeme + Noun ordering.

Word-order Constraints

Directional prepositional phrases in written Malay tend to appear in clause-final position, though informal spoken usage may deviate. In Mandarin, directional phrases enjoy relatively flexible placement within clauses.

Summary of Syntactic-function Comparison

Table 2. Syntactic-function comparison between Mandarin and Malay directional lexemes

Analytical Dimension	Mandarin Directional Lexemes	Malay Directional Lexemes
Syntactic level: Syntactic Roles	Subject, object, attributive, adverbial (polyfunctionality)	Mainly attributive and adverbial in normative writing; bare lexemes rarely as subject / object
Lexical-phrasal level: Combinatorial Patterns	Flexible bare-lexeme co-occurrence with prepositions, verbs and nouns	Typically embedded within prepositional phrases under standard written usage
Syntactic level: Canonical Word-order	Noun + Directional-lexeme; directional phrases can take varied positions	Directional-lexeme + Noun; directional phrases tend to be clause-final in normative written Malay

Key contrast reflects typological differences between isolating Mandarin and agglutinative Malay.

Contrastive Pragmatic Conventions

Register Variation

Register Profile of Mandarin Directional Lexemes

Spoken register prefers basic and suffix-derived directional forms. Written register favours prefix-derived compounds. Formal institutional writing tends to use absolute directional lexemes to reduce ambiguity.

Register Profile of Malay Directional Lexemes

Malay directional lexemes show limited register-driven lexical alternation. Register differences are mainly realised through prepositional marking: preposition ellipsis can occur in informal spoken discourse, while full prepositional marking is expected in formal written Malay.

Situational Appropriateness

Informal Bilingual Interaction

Code-mixing phenomena occur in Malaysian-Chinese informal conversation. This study observes directional lexemes being borrowed cross-linguistically in conversational tokens.

Academic-translation Context

In scholarly translation, literal translation may produce pragmatically inappropriate output. For example, *belakang sejarah* cannot be directly rendered as “behind history”; Mandarin “cutting-edge research” cannot be translated literally with *depan*. Context-adjusted lexical substitution is required.

Socio-cultural Connotative Meanings

Mandarin directional lexemes carry inherited socio-cultural symbolism derived from traditional Chinese thought. Left-right asymmetry: historical status-related asymmetries of left and right persist in some Malaysian-Chinese ritual contexts such as wedding seating arrangements. South-north symbolism: traditional associations of south with warmth and prosperity and north with coldness and solemnity are culturally rooted.

Summary of Pragmatic Comparison

Mandarin directional lexemes exhibit clear register stratification and carry inherited Chinese socio-cultural connotations. Malay directional-lexeme usage varies primarily in prepositional marking across registers. Cross-linguistic borrowing of directional items can be observed in Malaysian-Chinese informal bilingual speech.

CONCLUSION

This study compares Mandarin and Malay directional lexemes across taxonomy, semantics, syntax and pragmatics.

Morphologically, Mandarin directional lexemes build on monosyllabic roots with rich derivational possibilities in a three-tiered system. Malay directional lexemes are mostly polysyllabic; semantic extension relies primarily on phrasal constructions within a two-tiered system.

Semantically, absolute directional lexemes show good cross-linguistic equivalence. Relative lexemes such as front-back differ notably in metaphorical-extension potential: Mandarin allows extensive projection to temporal and abstract domains; Malay directional lexemes largely remain within spatial reference.

Syntactically, Mandarin directional lexemes are poly-functional with flexible constituent ordering. In standard written Malay, directional lexemes mostly operate inside prepositional phrases and tend to occupy clause-final positions.

Pragmatically, Mandarin demonstrates register stratification and traditional cultural associations. In Malaysian bilingual contexts, cross-linguistic borrowing of directional lexemes may appear in informal speech.

This research contributes empirical material to Mandarin-Malay spatial-lexicon contrastive studies and provides references for Malay-L1 Mandarin teaching and translation practice.

Ethical Considerations

No human participants or animal subjects were involved in this study. Ethical approval is not applicable for the present research.

Conflict Of Interest

The authors declare that there are no potential conflicts of interest regarding the research, authorship and publication of this article.

Data Availability Statement

Dataset sources include published corpora, public pedagogical materials and naturalistic bilingual tokens collected via sociolinguistic field observation. Raw informal bilingual utterance tokens are not publicly released to protect community participants' privacy. All analysed illustrative examples are presented within the manuscript.

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