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Full Text

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Keywords: markedness; system declaration; formal contrast; contextual verification; operational reconstruction; cross-linguistic verification

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The Systemic Attribution of Markedness: Operational

Reconstruction and Cross-Linguistic Verification

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Abstract: Markedness is one of the most widely used yet most controversial concepts in linguistics. Haspelmath (2006) systematically identified twelve distinct senses of markedness and argued that the concept has lost its theoretical value and should be abandoned. This paper proposes an alternative: the confusion surrounding markedness is not an inherent flaw of the concept itself, but rather stems from the implicit omission of systemic premises when researchers shift between different linguistic systems. We propose *system declaration* as a normative requirement and design the *formal contrast–contextual verification* operational chain, transforming markedness judgments from cross-level intuitive assessments into level-specific testable operational procedures. On this basis, we advance three falsifiable predictions: the Threshold Hypothesis, the Gradience Effect, and the Dimensional Independence. Through cross-linguistic case studies of English adverbs (*quick/quickly*), the *were*-subjunctive, Chinese run-on sentences, and Japanese honorifics, we argue that markedness need not be abandoned but should be operationally reconstructed. The multiplicity of senses is not a defect of markedness; rather, it is the natural consequence of markedness operating independently across distinct systems.

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1. Introduction: A Concept That Should Be Abandoned?

Markedness is one of the most widely used—and most controversial—concepts in linguistics. It originated in Trubetzkoy's (1939) analysis of phonological systems and was later extended by Jakobson, Greenberg (1966), and others into many domains, including morphology, semantics, pragmatics, and cognition. Yet as its range of application has expanded, the concept of markedness has instead fallen into profound self-contradiction.

Take the English adverbs *quick/quickly* as an example. Three commonly used

criteria in traditional markedness theory yield mutually contradictory judgments for the same case. By the criterion of morphological complexity, *quickly* bears the overt suffix *-ly* and is morphologically more complex; on this criterion it is marked. *Quick* is zero-marked and therefore unmarked. By the criterion of distributional range, *quickly* can be used in all registers and has a broader distribution; on this criterion it is unmarked. *Quick*, when used as an adverb, is restricted to colloquial and informal styles; its distribution is limited, and it is therefore marked. By the criterion of semantic specificity, the semantic domain of *quickly* is confined to the category of "manner," making it more specific and therefore marked; *quick* can cover manner, urgency, and commands, and is broader in scope, hence unmarked.

The three criteria point in completely opposite directions in the same case. Such conflict is not unique to English but is a cross-linguistically widespread phenomenon. When conflicts among criteria become a systematic problem, we must ask: is the concept of markedness itself defective, or is the problem with the way these criteria are being used?

Haspelmath (2006) systematically reviewed twelve different meanings of markedness in the literature—including formal complexity, semantic specificity, frequency, contextual restriction, diachronic order of emergence, and cognitive processing difficulty—and argued on this basis that a concept endowed with so many meanings that do not overlap has lost its theoretical value and should be abandoned, to be replaced by precise terms for each phenomenon. This critique is devastating: if markedness is indeed merely an imprecise umbrella term for twelve independent phenomena, then abandoning it is indeed the most economical course.

This paper proposes an alternative: the confusion surrounding markedness is not a defect of the concept itself, but results from users' concealing the system premises when they move between different "systems." The twelve meanings are not abuses of the same word; rather, each independently and legitimately operates according to the logic of markedness within twelve distinct systems.

The argument of this paper proceeds in four steps. First, it diagnoses the source of the confusion—the concealment of system premises (Chapter 2). Second, it offers a remedy: system declaration as a normative requirement for the use of markedness; it then operationalizes this remedy by showing how "formal contrast–contextual verification" can make system declaration concrete, and proposes three falsifiable mechanistic predictions (Chapter 3). Third, it tests the effectiveness of the operational procedure in four cross-linguistic cases (Chapter 4). Fourth, it returns to Haspelmath' s critique and argues why markedness need not be abandoned but should instead be reconstructed (Chapter 5).

2. Diagnosis: The Concealment of System Premises

2.1 Trubetzkoy' s Original Intention

The original operation of the concept of markedness was clear and autonomous. In the phonological systems of particular languages, Trubetzkoy found that the oppositions among certain phonemes were not equal, but privative oppositions: one member possesses a certain distinctive feature (marked), while the other does not possess that feature (unmarked). For example, in the English stop system, /b/ has the feature [+voice] and is marked relative to /p/.

The key point is that this judgment is valid only within a particular phonological system. In Mandarin Chinese, the opposition between /p/ and /p / concerns the feature of "aspiration," and the markedness relation is entirely different. From its inception, markedness has been system-specific.

determinate, relational, and functional. It is not an inherent property of the phoneme as an entity, but a relational identity within the system.

2.2 Loss in Extension

When Jakobson extended markedness from the phonological system to the domains of morphology and semantics, a crucial implicit premise was lost: system boundaries. Later theoretical syntheses attempted to establish cross-level, general criteria for markedness—what is formally complex, low in frequency, semantically specific, and difficult to process cognitively is marked—and assumed that these criteria should point in the same direction. But when they do not point in the same direction—as shown by *quick/quickly*—the theory falls into difficulty.

This is precisely the true source of the confusion criticized by Haspelmath: when users employ "marked/unmarked," they do not state which system they have entered. The criterion of morphological complexity operates in the morphological system; the criterion of distributional range operates in the discourse-distribution system; the criterion of semantic specificity operates in the semantic system. If they are pulled into the same evaluative framework, conflict is inevitable.

In Chinese linguistics, Shen Jiaxuan (2015) systematically applied markedness theory to analyze numerous asymmetries in Chinese syntax and semantics, greatly advancing the theory' s localized application. Yet, consistent with the general tendency in international scholarship, such research tacitly assumes cross-level unified criteria of markedness and has not elevated "system declaration" into a normative methodological requirement.

2.3 The Point of Departure of This Article

The claim of this article is that markedness need not be abandoned, but that the "system manual" it originally carried must be restored. Haspelmath' s twelve meanings are not evidence that the concept has failed; rather, they are traces of

the independent operation of markedness logic in twelve systems. The purpose of this article is to provide a unified methodological framework, requiring that the systemic premises be stated every time markedness is used, and to show how this requirement can be operationalized in concrete analysis.

3. Reconstruction: Operationalizing System Declaration

3.1 The Principle of System Declaration

This article proposes the following normative requirement: "X is marked" is an abbreviation for "in system S, X is marked relative to Y." Any academic writing that uses "marked/unmarked" must explicitly state: first, the grammatical unit/level and structural slot on which it relies; second, what the two opposing terms are; and third, the criteria for distinguishing normal filling from exceptional filling.

Here, "system" refers to the analytical domain in which the criterion of judgment is anchored on the spot. But system declaration cannot be arbitrary; it must satisfy the following four validity constraints. First, the principle of ontological correspondence: the division of systems must correspond to relatively independent organizational modules or structural dimensions in linguistic cognition, such as the phonological system, morphological system, tense system, and discourse-coherence system. Second, internal consistency: within the same system, the criterion of judgment must yield repeatable judgments for phenomena of the same type. Third, independent verifiability: the criterion of judgment must be independently verifiable, for example through frequency data or distributional facts, and cannot rely solely on the analyst' s intuition. Fourth, falsifiability: there must be possible counterexamples that could overturn the markedness judgment of that system. If different criteria yield conflicting judgments within the same system, this proves that subsystem splitting exists and that system boundaries need to be redrawn.

When multiple pieces of evidence concerning the same phenomenon are encountered, the priority for delimiting the system is as follows: first, frequency and distributional evidence takes priority—if corpus statistics or distributional facts clearly indicate that a certain filling is the norm, the system should be anchored on this basis; second, the principle of regular formation comes next—if there are clear morphological formation rules, then the output of the rule is taken as the norm; third, if frequency evidence conflicts with evidence from regular formation, one must not arbitrarily split the sys—

system; instead, it should be reported as "system unresolved," with the source of the conflict specified. "System unresolved" is an honest record of the complexity of linguistic facts, and it provides an empirical basis for more fine-grained system division in subsequent work.

It is necessary to clarify the relation between "system" and "level" : a "level" is a natural stratification of grammatical structure (morpheme, word, phrase, clause, discourse), whereas a "system" is an analytic domain anchored, within the same level, by particular criteria of judgment. Within a single level, multiple parallel systems may exist (for example, at the morphological level, a system of formal complexity and a system of corpus frequency); the relation between the two is that of "carrier–analytic domain." The analyst must explicitly state the level of operation and determine the normal filling and exceptional filling in the specific slot at that level. Normal filling is established by the distributional facts of that level and is independent of subsequent semantic analysis.

As part of the system statement that serves as the logical starting point of the operational chain, the determination of normal filling must be based on independently verifiable distributional facts. It may be recognized if any of the following conditions is met: first, its frequency of occurrence in the target slot is significantly higher than that of the other options; second, the collocable vocabulary and contextual range cover the overwhelming majority of subtypes in that slot and thus have general adaptability; third, it is the default output form for native speakers and can be verified through elicited-production experiments. If different distributional indicators yield conflicting results, this indicates subsystem differentiation; the system must then be split and the systems stated separately.

For the distinction between normal filling and exceptional filling, at the morphological level there is a criterion independent of frequency and distribution: the principle of standard formation. If a certain grammatical function has a standard formation rule (as in English "adjective + *-ly* → adverb"), then the form produced by that rule is the default derivational benchmark within the system and is treated as normal filling; other formation modes that bypass this rule (such as zero derivation) are exceptional filling. This principle advances the judgment of "normal/exceptional" from distributional facts to the level of morphological formation rules—normal filling is not only "more frequent," but also "generated by a standard formation rule." Labels in authoritative dictionaries for non-standard formations (for example, the *OED* labels the adverb *quick* as "now usually avoided in educated speech") can provide external evidence for such judgments that is independent of the analyst' s intuition.

Within this framework, markedness is neither a purely subjective construct nor a purely entity-based property, but rather the manifestation of a property of systemic organization in analytic operations. This ontological positioning avoids the reification of essentialism while also guarding against the arbitrariness of relativism.

3.2 Operational chain: the explicit manifestation of markedness

How is a system statement implemented? This paper proposes the following operational chain: system statement → formal contrast → semantic-domain

change → contextual verification → explicit manifestation of markedness.

First, system statement. Determining the level, slot, normal filling, and exceptional filling is the starting point of the entire analysis.

Second, formal contrast. Normal filling and exceptional filling are juxtaposed in the same slot to create formal asymmetry. The contrast may be heterogeneous (the normal and exceptional forms differ, as in *quickly* vs. *quick*), or it may be identical (the occurrence and omission of the same marker, such as the appearance and disappearance of a conjunction at the discourse level). Formal contrast follows the principle of minimal opposition: except for the presence or absence of the marker, the core lexical meaning of the two items being contrasted must remain consistent.

Then, semantic-domain change. This is the core effect brought about by formal contrast: formal contrast breaks the semantic-domain lock of normal filling, causing the semantic domain of exceptional filling to be released or relocked. The "semantic domain" here is not the static coverage range of a lexical item' s senses (as in the "semantic domain of a word" in traditional lexicology), nor is it a variant of the "conceptual domain" in cognitive semantics; rather, it is a dynamic definition operationalized on the basis of Lyons' s (1977) discussion of semantic fields—namely, "the set of contexts and senses that a form can cover when triggered by formal contrast." Its existence is verified through two independently observable kinds of evidence: first, formal contrast breaks semantic-domain locking; second, the same exceptional filling in different linguistic [[unclear: continuation not visible]]

fill different meanings in contexts.

Next, contextual verification. Place the semantic domain in a specific context and measure the directional difference in semantic-domain filling. If the same form is filled in direction X in context A and in direction Y in context B, and if $X \neq Y$, then this proves that the direction of filling is determined by context rather than being presupposed by formal distance itself. If the context cannot be activated, formal contrast produces only "allomorphy," not "markedness correspondence" —the setting of this boundary condition further clarifies the distinction between markedness and mere formal variation.

Finally, the explicit manifestation of markedness. This is the natural result after the above operations have been completed: markedness, as a relational identity, is made visible. In other words, markedness is not an inherent property of an entity that is discovered; rather, it is a relational identity that is operationally constructed within the system through the combined operation of formal comparison and contextual verification. It is precisely this claim that constitutes a direct response to Haspelmath's criticism of "non-operationalizability": markedness is not non-operationalizable; on the contrary, it is made explicit through operations.

3.3 Mechanism-Based Inference: Three Falsifiable Predictions

Based on the operational chain described above, this paper proposes the following three falsifiable predictions:

Prediction 1: the threshold hypothesis. For formal contrast to trigger a change in the semantic domain, two conditions must be satisfied. First, a contrast condition: the exceptional filling must have a comparable unmarked filling as its reference. Second, a contextual activation condition: there must be a corresponding context that activates the direction of semantic-domain filling. If either condition is not satisfied, formal contrast produces only formal difference and does not trigger a change in the semantic domain. Falsifiability: if cases are found in which both conditions are satisfied but the semantic domain remains unchanged, the hypothesis is falsified.

Prediction 2: the gradient effect. Within the same system and the same type of deviation, the greater the degree of deviation between exceptional filling and unmarked filling, the richer or more specific the types of contexts that can be entered. Degrees cannot be directly compared across different types of deviation, such as morphological zeroing vs. tense deviation. Falsifiability: if the degree of deviation increases within the same type but the types of contexts that can be entered do not increase, the hypothesis is falsified.

Prediction 3: dimensional independence. When formal distance involves multiple dimensions, such as tense deviation + agreement-relation deviation, or morphological increase + lexical substitution, the semantic-domain filling of each dimension does not interfere with the others. A change in one dimension does not alter the locked state of another dimension. Falsifiability: if a significant interaction effect is found between dimensions, the hypothesis is falsified.

As for verification at the level of cognitive processing, such as reaction time and ERP, because it requires independent experimental design, this paper lists it as a direction for future testable extension.

4. Verification: Operational Demonstrations with Cross-Linguistic Cases

This chapter attempts to verify the effectiveness of the operational procedure at four grammatical levels. Each case begins with a systematic statement, ends with the explicit manifestation of markedness, and finally states clearly which prediction has been verified and what kind of standard conflict has been resolved.

4.1 Morphological Level: English Adverb *quick/quickly*

First, the systematic statement. The operational level is the phrasal level, and the slot is V+Adv. This paper takes the written-language norm as the analytical reference system. Under this reference system, the standard derived adverb

with *-ly* is the unmarked filling; the zero-marked adverb *quick* is the exceptional filling. The stylistic annotation in authoritative dictionaries provides external corroboration for this—under the entry for the adverb *quick*, the OED notes: "now usually avoided in educated speech and writing, though

"found in some standard colloquial constructions," whereas the entry for *quickly* contains no restrictive note. Within the reference system of the spoken register, the relationship between the normal and the exceptional may be reversed; this shares the same logic as the analysis of Chinese run-on sentences in §4.3.

Second, formal comparison. Placing *Do it quickly* (normal filling) and *Do it quick* (exceptional filling) side by side in the same slot, *-ly*, as the standard marker of adverb formation, functions not only as a device of category conversion but also as a mechanism for inheriting and locking in the core semantics of the adjective. *Quickly* is generated through the standard rule, and its semantics are automatically anchored in the category of "manner" ; *quick*, by bypassing this rule and entering the adverbial slot, interrupts the semantic inheritance chain, thereby making a change of semantic domain possible. The core lexical meaning of *quick* ("fast") remains consistent with that of *quickly*, satisfying the principle of minimal opposition.

Third, semantic-domain change. The literal meaning of the normal filling *Do it quickly* focuses on the speed property of the action, making it difficult to activate pragmatic meanings beyond manner. The exceptional filling *Do it quick*, by contrast, deviates from the standard formation rule, so that the semantic domain is no longer completely locked within the manner category; it may therefore, in specific contexts, fill pragmatic meanings such as urgency or command.

Judging from the entry structure in the OED (2nd ed.), although the senses of *quickly* have undergone historical differentiation (including "in a lively manner," "rapidly," "with participial adjectives," etc.), they never depart from the manner category, and the semantic core remains highly locked to the feature of speed. When *quick* is used as an adverb, the OED explicitly marks it as "now usually avoided in educated speech and writing, though found in some standard colloquial constructions," and separately records an imperative use ("Quick, bring my cloak."), thereby breaking through the manner category and entering the pragmatic dimension of command. The consistency of the two in core lexical meaning guarantees minimal opposition, while the register-restricted marking of the adverbial use of *quick* and the existence of the imperative sense provide static evidence for semantic-domain release.

Fourth, contextual verification. When the same formal asymmetry is placed in different contexts—when a coach is instructing an athlete, *Do it quickly* conveys literal skill instruction (emphasizing the speed of the action), whereas *Do it quick* is instead insufficiently formal; when urgently prompting a companion, *Do it quick!* activates the meaning of urgency/command (equivalent to "Hurry up!"), while the normal filling *Do it quickly* appears distant or delayed in this scenario; in technical documentation, *The system responds quickly* is the appropriate

expression, whereas *quick* is inappropriate in this register. The same exceptional filling thus fills "command" in an urgent spoken context, while in a formal written context its grammatical acceptability declines; contextual verification successfully distinguishes differences in the direction of filling.

Contrary evidence further supports this judgment. The normal filling *Do it quickly* can hardly generate an urgent or imperative meaning in any context, indicating that the source of semantic change lies in the marked status of the exceptional filling rather than in the lexeme itself. Corpus data (CORE Corpus, Davies 2014) show that in contemporary American English, the frequency of *quickly* is about 5.8 times that of *quick* (ADV), further confirming its distributional advantage as the normal filling. Similar pairs include *loud/loudly*, *clear/clearly*, etc.; the same operational procedure applies to all paired adverbs of the colloquially legitimate variant type, with *quick/quickly* as a typical representative.

A two-condition verification of the threshold hypothesis can be carried out. *Quick/quickly* (with the contrast condition satisfied and the contextual activation condition satisfied) shows significant release of the semantic domain—verifying the sufficient-condition side of Prediction 1; *fast* (with the contrast condition not satisfied, lacking *fastly* as a normal filling) cannot establish a same-slot formal contrast, and its semantic domain shows no corresponding fluctuation—verifying the necessary-condition side of Prediction 1. If semantic-domain change were an inevitable result of formal comparison, then *fast* should also show semantic change; in fact it does not, and the threshold hypothesis is supported.

This case verifies Prediction 1 (the threshold hypothesis). At the same time, by declaring that "the operational level is the phrase level, and the reference system is the normative written register," it resolves the standard conflict raised in the introduction: the judgment under the morphological-complexity criterion at the single-

word layer, while judgments based on the distributional-scope criterion and the semantic-specificity criterion operate at the phrase layer—they do not contradict one another within the same system, but are each valid at different levels. The root of the conflict is level confusion, not a conceptual defect.

Fifth, the markedness becomes explicit. The zero-derived adverb *quick*, relative to the standard derived adverb *quickly* at the phrase layer (with the written-standard register as the reference system), enters the adverbial slot by bypassing the standard formation rule and is identified as an anomalous filling. After its semantic domain is released from the category of "manner," it is filled, in an urgent spoken context, with the meaning of "command" ; in a formal written context, however, its grammatical acceptability decreases—markedness, as a relational identity, is thereby made manifest in this chain of operations.

4.2 Tense Layer: *were*-Type Subjunctive Mood

First, system statement. The operational level is the clause layer, and the slot is the conditional-clause slot. In this slot, the present tense is the normal filling for real conditions, whereas the past tense is an anomalous filling.

Second, formal comparison. Placing *If he is*··· (real condition) alongside *If he were*··· (subjunctive condition), the deviation involved in anomalous filling contains two independently switchable dimensions—tense deviation (present → past) and agreement deviation (*was* → *were*, with a singular subject forced to use the plural form). In the informal register, *If I was late* retains tense deviation but cancels agreement deviation; its counterfactual strength is markedly reduced, showing that the two dimensions are grammatically separable.

Third, domain change. The anomalous filling *If he were*···, through the superposition of tense deviation and agreement deviation, releases the semantic domain into the space of counterfactual meaning. The one-dimensional deviation in *If I was late* can trigger only a weaker counterfactual interpretation; the double deviation in *If I were you* triggers a stricter and less revocable counterfactual meaning. The degree of openness of the semantic domain is positively correlated with formal distance, forming the semantic basis of the gradient effect.

The gradient effect of double superposition: in *If I were you*, tense deviation creates "temporal distance," and agreement deviation creates "morphological anomaly" ; together, the two deviations create "maximal distance from reality." The degree to which the counterfactual context is restrictively specified is higher than in the one-dimensional deviation of *If I was late*. This is an independent verification, at the tense level, of Prediction 2 (the gradient effect): within the same deviation type, dimensional superposition leads to increased formal distance, and the openness of the semantic domain rises accordingly.

Fourth, contextual verification. In a subjunctive context, formal distance is filled as counterfactual meaning ("he is not here, but suppose he were"); in a non-subjunctive context (used to state a fact), contextual filling fails and the sentence is unacceptable.

Fifth, markedness becomes explicit. At the clause layer, *were*, relative to *is*, is identified as an anomalous filling through the joint operation of tense deviation and agreement deviation. This case verifies Prediction 2 (the gradient effect).

4.3 Discourse Layer: Chinese Run-on Sentences

First, system statement. The operational level is the discourse layer, and the slot is the causal-conjunctive slot. This paper selects the written-standard register as the analytical reference system. Under this reference system, an overt double-conjunction form ("because···therefore···") is the normal filling, while a zero-conjunction form is an anomalous filling. In the spoken-register reference system, the relationship between the normal and the anomalous is exactly the reverse—this precisely demonstrates the framework' s level sensitivity. This phenomenon

is highly compatible with the asymmetric pattern of Chinese syntax proposed by Shen Jiaxuan (2015), and the level-binding framework provides a more precise operational explanation for this observation: the essence of the dispute is not whether Chinese "has markedness," but rather that the benchmarks for normal filling differ across different register systems.

Second, formal comparison. The double conjunction ("Because it rained, therefore the flowers were washed away"), the single conjunction ("It rained, so the flowers were washed away"), and the zero conjunction ("It rained; the flowers were washed away") constitute a three-level formal distance

gradient. Exceptional filling omits explicit cohesive markers, transferring responsibility for interpreting the logical relation to the context.

Third, change in semantic domain. After exceptional filling omits the explicit cohesive marker, responsibility for interpreting the logical relation is shifted from the formal marker to the context. In an inferable context, the semantic domain of the zero-connective form is successfully filled by the context, and causal inference is naturally established; in a non-inferable context, semantic-domain filling fails and the sentence meaning becomes vague. The three-level formal-distance gradient corresponds to a three-level difference in the degree of semantic-domain release.

Fourth, contextual validation. In an inferable context—where common knowledge can supplement the causal relation—the context successfully fills causal inference, and the zero-connective form is natural; in a non-inferable context ("He went out, and the flowers were washed away"), the causal relation cannot be supplied by common knowledge, contextual filling fails, and the sentence becomes vague. The interruption test provides evidence at the behavioral level: when the interlocutor urgently asks about focal information, if the speaker uses a zero-connective flowing sentence to lay down background information, they will be interrupted— "respond to the focus first" is an unmarked ordering strategy at the discourse level, whereas "lay down background first" is a marked strategy. Studies of discourse processing (Cozijn, Noordman & Vonk 2011) also show that the order in which explicit connective markers appear is meaningful: the "effect–cause"type (B because A) is more difficult to process than the "cause–effect" type (Because A, B), and processing cost is higher. A zero-marked form, by contrast, forces readers to infer the causal relation on their own and match it with world knowledge, so its processing cost is evidently still higher. This is precisely the cognitive manifestation of its marked identity at the discourse level, and it further confirms the classic observations of Lü Shuxiang (1979) and Wang Li (1985) concerning the "paratactic" features of Chinese.

Fifth, markedness becomes formally manifest. At the discourse level in the written-style reference system, zero connectives, through the combined operation of the three-level formal contrast produced by omitting explicit cohesive markers and contextual validation, are identified as exceptional filling. This case fully verifies the dual-condition logic of Prediction 1—the threshold hypoth-

esis—and supplements the key contrast level of "contrast satisfied, activation unsatisfied." At the same time, from a hierarchical perspective, it dissolves a long-standing controversy in Chinese linguistics: whether "flowing sentences are an unmarked feature of Chinese" or "flowing sentences are marked ellipsis." The former takes the spoken-language system as its reference, whereas the latter takes the written-language system as its reference; because their systemic premises are not unified, the debate naturally cannot be resolved. Once the systemic premises are stated, the controversy can be clarified.

4.4 Social Layer: Semantic-Domain Locking in Japanese Honorifics

First, system declaration. The operating level is the intersection of the phrase level (the verb slot) and the social-discourse level. The honorific system of Japanese verb slots requires social relations to be encoded simultaneously in the verb form.

Second, formal contrast. Four kinds of filling in the same "eat" slot are juxtaposed: the plain form 食べる (ordinary filling, propositionally semantically neutral, without social marking), the polite form 食べます (morphological addition of -ます, a positive formal deviation in the register dimension), the respectful honorific 召し上がる (lexical replacement, a positive formal deviation in the social dimension, locked as respect toward elders/guests), and the humble form いただく (lexical replacement, a positive deviation in the social dimension in the opposite direction, with the speaker lowering their own status). In the cases in the first three subsections, exceptional filling was manifested as negative formal deviation (loss of marking); here, however, exceptional filling is manifested as positive formal deviation (marker stacking). The bidirectionality of formal distance is thereby verified: negative deviation breaks semantic-domain locking and releases the semantic domain, whereas positive deviation narrows the scope of application and strengthens semantic-domain locking.

Third, change in semantic domain. Positive formal deviation and negative formal deviation move in opposite directions, but they share the same logic of semantic-domain operation. Negative deviation (such as the zero-derived adverb *quick*) breaks semantic-domain locking and releases the semantic domain; positive deviation (such as the honorific forms 食べます/召し上がる) narrows the applicable semantic-domain range and strengthens semantic-domain locking—the social range in which the form may be used legitimately narrows as formal distance increases, and the direction of semantic filling is strictly anchored to a specific social context. The four filling forms constitute a semantic-domain gradient from "no social marking" to "strict locking of social meaning."

Fourth, contextual validation. 食べる (natural at a meal among friends, inappropriate toward elders), 食べます (polite toward elders but not sufficiently respectful, overly formal toward friends), 召し上がる (appropriately respectful toward elders, toward fri[[unclear: text continues beyond the visible page]]

distant/overly formal with friends), *itadaku* (appropriate as self-deprecation

when referring to oneself eating, but directionally erroneous when referring to the other party eating) (Kikuchi Yasuto 1997). Ide' s (1989) theory of "discernment" further shows that honorific forms are not a strategic choice, but an automatic encoding of social-relational parameters (superior/inferior, in-group/out-group, intimate/distant). Contextual verification indicates that the increase in formal distance here triggers the locking of the social context—the range of social situations in which the form can be legitimately used narrows.

Fifth, markedness is manifested. Positive deviation in formal complexity or specialization intersects at the lexical level and the social-speech level, and through the combined operation of formal contrast and contextual verification, is identified as anomalous filling. This case verifies the bidirectionality of the multiple directions of formal distance in Prediction 3 (dimensional independence) and Prediction 2 (ladder effect). The direction in which its markedness appears is opposite to that of the preceding three cases (domain locking rather than release), but it shares the same operating procedure—thereby completing the closed loop of the bidirectional mechanism.

In addition, in terms of dimensional independence, when an honorific-politeness form is superimposed on an honorific expression, such as *meshiagarimasu*, an additional politeness-register dimension is added on top of the already locked honorific dimension of respect, and the contextual fillings of the two dimensions do not interfere with each other. English *can/could* provides cross-linguistic corroboration—*could*' s past-tense morphological marking does not change the core meaning, but only adds a euphemistic register dimension, sharing the same operational logic as Japanese *-masu*.

5. Theoretical Resonance: Reversing Haspelmath

5.1 Haspelmath' s Premise Can Be Rejected

Haspelmath' s (2006) critique of markedness is logically as follows: if a concept has 12 meanings that do not overlap with one another, this shows that it has become an empty object and should be abandoned. This critique rests on an implicit premise: markedness should be a cross-level unified entity property; when morphology, semantics, frequency, and processing cost point in different directions, the concept becomes invalid.

But this premise need not be accepted. If markedness has been system-specific from its inception—if Trubetzkoy never committed himself to the claim that the markedness relation between /p/ and /b/ holds in the same way at the morphological or semantic level—then "cross-level unity" is not an intrinsic requirement of the concept of markedness, but an additional burden imposed by later theoretical integration. Once this burden is rejected, the standard conflict dissolves into hierarchical differences. Battistella (1990) distinguished between the narrow Prague School notion of privative opposition and the broader notion of functional asymmetry. The system-specific framework of the present paper is

highly compatible with his broad logic of markedness, but further operationalizes it into a testable analytic procedure.

It is worth noting that Haspelmath (2020), in a later authoritative overview, partially revised his extreme 2006 abandonmentist position, acknowledging that markedness still has irreplaceable explanatory force when theoretical boundaries and analytic frameworks are clearly specified, and arguing that its contexts of use should be strictly delimited rather than that it should be thoroughly discarded. The "system declaration" norm proposed in this paper is precisely an operational implementation of that principle of delimitation—transforming "explicit boundaries" from a principled appeal into an executable five-step analytic procedure.

5.2 Twelve Meanings = Twelve Systems

The 12 meanings listed by Haspelmath—formal complexity, semantic specificity, high or low frequency, contextual restriction, diachronic precedence, cognitive processing difficulty, and so on—are exactly traces of markedness logic operating independently in 12 systems. In the morphological system, what is formally complex is marked; in the discourse-distribution system, what is low in frequency is marked; in the semantic system, what is semantically specific is marked. Within each system, judgments of markedness are clear, autonomous, and operational. Confusion arises not because the concept is empty, but because users, when moving among these 12 systems, fail to declare which system they have entered.

Eight core meanings are selected from these, and they can be clearly mapped onto the analytic systems of this paper, as shown in the table below. The remaining peripheral meanings are, in essence, extended variants of the core systems and will not be listed one by one.

Systemic Correspondences for Haspelmath' s Core Meanings of Markedness

Meaning Listed by Haspelmath	Corresponding Analytic System	Core Criterion for Determination	Corresponding Level / Case in This Paper
Formal complexity	Morphological-form system	Presence or absence, and number, of overt markers	Word level / adverbial *-ly* suffix
Distributional frequency	Discourse-distribution system	Frequency of occurrence and proportion in the corpus	Phrase level / distribution of *quick–quickly*

Meaning Listed by Haspelmath	Corresponding Analytic System	Core Criterion for Determination	Corresponding Level / Case in This Paper
Semantic specificity	Semantic-content system	Breadth or narrowness of the range of senses	Phrase level / differences in the senses of *quick*-*quickly*
Contextual restriction	Pragmatic-adaptation system	Number and range of legitimate contexts	Social level / applicable contexts for Japanese honorifics
Cognitive processing difficulty	Cognitive-processing system	Processing indicators such as reaction time and accuracy	Clause level / processing cost of the subjunctive mood
Diachronic order of emergence	Diachronic-evolution system	Sequential order in grammatical-ization pathways	Cross-level / Bybee' s frequency-based evolutionary model
Morphological productivity	Morphosyntactic system	Generalizability of deriva-tion/inflection	Morphological level / derivational rule for *-ly* adverbs
Distributional asymmetry	Typological system	Cross-linguistic implicational-universal patterns	Cross-linguistic / Greenbergian linguistic universals

The operationalization proposed in this paper provides a verifiable decision procedure for each system: declare the level and slot, determine normal and abnormal fillers, create asymmetry through formal contrast, and measure the direction of semantic-domain filling through contextual validation. Markedness is no longer a vague intuitive judgment, but a testable operational product.

Verification of the cognitive-processing system requires an independent experimental design; this paper lists it as a direction in which the framework can be extended, without conducting an independent empirical test. Verification of the diachronic-evolution system is based on Bybee' s (2010) usage-based model and on existing findings in grammaticalization research; this paper likewise treats it as an extensible direction for the framework, without conducting an independent empirical test.

5.3 Why "Markedness" Is Irreplaceable

Haspelmath' s prescription is to replace "markedness" with precise terms such as "formal complexity," "low frequency," and "semantic specificity," used separately. The cost of this prescription is theoretical fragmentation: it cannot explain parallel phenomena across levels. This paper retains "markedness" as an integrative concept not because it yields a unified judgment—markedness judgments in different systems are indeed different—but for two reasons:

First, a unified organizational logic. The reason these properties often (though not necessarily) co-occur is that they all derive from the same organizational principle of asymmetric opposition within the system. This is like the core concept of "category" in linguistics, which has different operational definitions and forms of expression in phonology, morphology, syntax, and semantics, yet shares the core organizational logic of "boundary-based classification" and is not discarded because of semantic diversity. Markedness is the same: formal complexity, low frequency, and semantic specificity are manifestations of the same asymmetric logic at the three systemic levels of form, distribution, and meaning.

Second, a unified analytical procedure. The operational chain proposed in this paper— "system statement → formal comparison → contextual verification" — applies to all systems and provides a unified methodological framework. If "markedness" is abandoned and replaced by independent terms of their own, we lose the theoretical concept that integrates these phenomena, and we also lose the theoretical opportunity to ask deeper questions such as "why do formal complexity, frequency, and semantic specificity often co-occur across languages?" and "why do different levels all display asymmetric organization?" Fragmented terminology ("low frequency," "formal complexity," "semantic specificity") each goes its own way and cannot raise this cross-systemic question; precisely because markedness is an integrative concept, its irreplaceable epistemological value lies in making this question possible. Bybee' s (2010) usage-based model answers this question: high frequency of use leads to morphological erosion and semantic generalization, and the same grammaticalization process links the markedness judgments of multiple systems. Without an integrative concept, such a cross-systemic explanation could not even be expressed.

The diachronic perspective further supports the value of integration: Bybee' s (2010) usage-based model shows that frequently used unmarked forms undergo morphological erosion and gradually become morphologically unmarked; at the same time, the meanings of high-frequency forms gradually become entrenched and generalized, becoming semantically unmarked. This is the diachronic reason why the markedness judgments of multiple systems often co-occur—they are not accidentally clustered together, but are linked by the same grammaticalization process. Markedness, as an integrative concept, precisely provides theoretical space for asking about the motivation behind this kind of cross-systemic co-occurrence. More crucially, diachronic grammaticalization leads forms to cross

levels, but markedness judgments within each level still follow the principle of system statement—`-ly` is marked in the morphological system at the word level (morphological addition), but unmarked in the distributional system at the phrase level (normal filling). This cross-level differentiation of markedness is a typical manifestation of the independent operation of different systems.

5.4 Dialogue with Other Theories

First, prototype theory. Prototype theory also holds that the center of a category is unmarked and the periphery is marked. However, the structural contrast logic of this paper is essentially different from the gradient logic of prototype theory: this paper focuses on the binary correspondence between normal and abnormal filling in a specific slot (based on the Trubetzkoy tradition), rather than the degree of gradient membership among the internal members of a category. The two can be compatible: prototype theory explains the gradient organization within a category, while the framework of this paper explains the corresponding relations within structural slots.

Second, Croft' s (2002) classification. Croft' s four types of markedness—structural, behavioral, frequency-based, and semantic—are precisely the counterparts of the "system" concept in this paper across four dimensions. The advance made in this paper lies in further requiring that every classification must first state the system premise and provide an operational procedure for verification.

Then, Optimality Theory (OT). The markedness constraints in Optimality Theory are essentially asymmetric judgments relative to a specific constraint level (system): markedness constraints define the default output (similar to the normal filling in this paper), while faithfulness constraints constrain formal deviation (similar to the formal distance of abnormal filling in this paper). The ranking of constraints in OT is a refined expression of the "system statement" in this paper. The framework of this paper and OT are highly isomorphic in logic, but the former extends the scope of operation from the syntax-phonology system to the discourse and social levels, making a unified analysis across modules possible. OT' s constraints are a static hierarchical ranking and do not involve the dynamic determination of filling direction by contextual opposition domains; the contextual verification in the framework of this paper precisely fills this gap.

Next, grammaticalization theory. The relationship between Bybee' s (2010) theory of usage frequency and this paper is complementary:

Frequency of use determines pragmatic markedness, and the latter is consolidated through grammaticalization into morphological markedness. The framework proposed in this paper provides a synchronic basis for analyzing this diachronic evolution; together, the two explain the cross-system parallel phenomenon whereby "formal complexity, low frequency, and semantic specificity often co-occur."

Finally, a brief qualification is in order. Morphological deviation exists at different levels. For example, first-level deviation (idiomatic fossilization): the meaning of a zero-derived adverb is fixed in a particular construction, as in *Go easy* and *Stand easy*; its meaning does not fluctuate dynamically with context, and it is a product of diachronic lexicalization, which falls outside the explanatory scope of this paper. Second-level deviation (colloquial legitimacy): a zero-derived adverb is legitimate in speech but restricted in register, as in *quick*; its meaning is in a semi-open state, and formal contrast may trigger contextual enrichment—this is the core explanatory domain of what this paper calls "markedness of morphological deviation." Third-level deviation (complete differentiation): the zero-derived adverb has separated from the adjectival category and become an independent lexical item, as in *dead* "completely" vs. *deadly* "fatally" ; it no longer forms a formal opposition. This distinction among levels of deviation further clarifies the limits of applicability of the framework proposed here.[1]

6. Conclusion

The core contribution of this paper is reflected at three levels. At the methodological level, it provides the first complete and operational analytical procedure for the study of markedness: system declaration → formal contrast → domain change → contextual verification → manifestation of markedness. It thereby transforms judgments of markedness from cross-level, confused intuitive judgments into verifiable operational steps within a given level. At the theoretical level, it argues that markedness need not be abandoned, but must be operationally reconstructed. By rejecting the implicit premise of Haspelmath' s "cross-level unity," the twelve senses are reinterpreted as the independent operation of markedness logic in twelve systems, achieving a theoretical reversal from "abandoning markedness" to "reconstructing markedness." This framework dissolves at the root the conceptual confusion criticized by Haspelmath: multiple senses are not a defect of markedness, but the natural result of its independent operation in different systems. At the empirical level, the paper verifies, in four cross-linguistic cases, the bidirectional mechanisms of domain release and domain locking, and obtains preliminary support for three falsifiable predictions.

All three predictions of this framework are falsifiable. If the following empirical facts are found, the corresponding predictions will be overturned: the threshold hypothesis—there is a normal/abnormal contrast and the conditions for contextual activation are satisfied, yet abnormal enrichment produces no semantic or pragmatic fluctuation whatsoever; the gradient effect—within the same type of

[1] *slow/slowly* lies in the ambiguous zone of transition from second-level deviation to first-level deviation. The admonitory meaning in fixed collocations such as *Go slow* shows a tendency toward fossilization, but has not yet been completely frozen. Its *OED* entry bears no register-restriction label, in contrast to the explicit labeling of *quick*. This diachronically unresolved state means that *slow/slowly* does not fully meet the definition of markedness of morphological deviation; therefore, this paper does not treat it as a main case.

deviation, formal distance increases, but the range of context types that can be entered does not increase; dimensional independence—when multiple dimensions are superimposed, the direction of domain enrichment in one dimension changes the locked state of another dimension. The existence of these potential counterexamples means that the "manifestation of markedness" is not an ex post facto naming trick, but an operational hypothesis open to empirical challenge.

This study still has two limitations. First, the validation cases are concentrated in analytic and agglutinative languages; the applicability and adaptation of this operational framework in highly inflectional languages remain to be further tested in subsequent research. Second, the present framework is primarily based on synchronic system analysis. How to extend the system-declaration procedure to the level of diachronic evolution, and how to introduce a "temporal anchor point for system declaration" in order to track the dynamic transformation of markedness identity along pathways of grammaticalization, are important directions for future expansion.

Markedness is not an inherent property of an entity that is discovered, but a relational identity constructed through operations within a system. Haspelmath' s twelve senses are the fingerprints left by one concept in twelve systems. If we abandon it, we lose the tool for identifying these fingerprints. If we retain it, and allow it to operate anew with system declaration, markedness can be transformed from a confused label back into an epistemological probe for exploring the systems behind linguistic structure.

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Author Contribution Statement

Shi Wei: proposed the research ideas and designed the research plan; was responsible for the literature review, construction of the theoretical framework, and methodological innovation; and completed the drafting, revision, and final revisions of the manuscript.

Note: Figure translations are in progress. See original paper for figures.