

Article

A Study on the Differences Between the Modal Verbs "ke" and "keyi" from the Perspectives of Register Grammar and Prosodic Grammar

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Abstract: This paper comprehensively investigates the nuanced differences between the Chinese modal verbs "ke" and "keyi" from the dual perspectives of register grammar and prosodic grammar. By systematically examining dictionary definitions, conducting rigorous qualitative and quantitative analyses of exemplary vernacular Chinese corpora, and reviewing theoretical selections from the People's Daily, this research integrates diachronic evolution and grammaticalization theory to reveal several key findings. At the register level, the analysis demonstrates that "ke" predominantly aligns with the Solemn/Classical Register or the Formal Register, whereas "keyi" is firmly situated within the Common Register. Notably, in Modern Chinese, the Formal Register attribute of "ke" has significantly surpassed its historical Solemn/Classical Register attribute. At the prosodic level, the data indicate that "ke" is highly likely to be followed by disyllabic verbs, whereas "keyi" is more frequently followed by monosyllabic verbs. Furthermore, when preceded by adverbs, the proportion of "ke" following monosyllabic adverbs remains relatively high, but this frequency drops sharply when preceded by disyllabic and polysyllabic adverbs. Ultimately, the differences between these two modal verbs are not merely a matter of superficial prosodic matching; rather, they represent the complex result of a synergistic interaction between inherent register attributes and underlying prosodic rules. The study conclusively shows that register grammar and prosodic grammar mutually constrain and condition each other, jointly influencing the grammatical distribution and functional evolution of modal words in contemporary Chinese.

Keywords: modal verbs; register grammar; prosodic grammar; grammaticalization; chinese linguistics

1. Register Differences

The definitions of the modal verbs "ke" and "keyi" in Modern Chinese Dictionary are shown in the table below: (As shown in Table 1).

Table 1. Definitions of "ke" and "keyi".

Word	Definition	Example
ke	① Indicates permission or possibility, synonymous with "keyi"	Elm wood ke be used to make furniture
	② Indicates worthiness	This play ke be watched
keyi	① Indicates possibility or ability	This wheat is ripe, keyi be harvested
	② Indicates permission	You keyi leave now
	③ Indicates worthiness	That article is well written, very keyi be read

Both share the core semantic categories of "permission/possibility" and "worthiness," with "keyi" having a more detailed subdivision of meanings. According to Feng Shengli's

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view, disyllabic forms are formal, while monosyllabic forms are either Solemn/Classical (Classical Chinese) or colloquial (everyday language). "Keyi" is preliminarily judged as belonging to the Formal Register, while "ke" is associated with either the Solemn/Classical Register or the Colloquial Register [1].

1.1. Determining the Register Tendency of "ke"

Cowrie shells, also known as *Bei zi*, are mollusks [2]. Their shells are convex, with longitudinally fissured margins that are tooth-like and as smooth as porcelain. They can be used as toys and also have medicinal applications.

In this example, in terms of the communicative space-time dimension, the audience consists of readers, specifically cultured individuals or knowledge groups, representing knowledge transmission with a textual-research character. The passage examines the definition and uses of cowrie shells, a topic of classical natural history, requiring precise and elegant expression. The setting is an abstract scene of classical natural history research [3]. The entire passage aims to objectively examine the appearance and uses of cowrie shells. In the grammatical space-time dimension, it exhibits abstract temporality, with refined and elegant linguistic forms and a generalizing character.

Digging wells and plowing fields, what has the emperor's power to do with me? It is heard that cliffs plunge into water, startling geese once turned back; long slopes reach the clouds, and even a lame sheep can tread upon them [1].

In this example, in the communicative space-time dimension, the participants are literary scholars, representing academic discussion with literary exchange, with a medium communicative distance. The passage quotes classical texts and discusses traditional cultural topics, belonging to elegant topics requiring refined expression. The setting is not a specific physical location but an abstract scene of "classical cultural discussion." The passage aims to interpret classical quotations with a solemn and elegant tone. In the grammatical space-time dimension, it exhibits pan-space time, with linguistic forms that are both classical and refined.

Through original innovation and scientific accumulation in space breeding mechanisms, a large number of breakthrough new agricultural varieties and space breeding technologies with independent intellectual property rights can be obtained [4].

In this example, in the communicative space-time dimension, the participants are scientific researchers, policymakers, or professional audiences, representing a public communication scene in academic scientific research, with a distant communicative distance. The passage discusses the transformation of achievements in space breeding research, belonging to specialized topics in high-end agricultural technology and scientific innovation, requiring precise, rigorous, and standardized expression. The setting is not a specific physical location but a generalized, abstract professional scene of "space breeding." The passage aims to objectively state the expected outcomes of scientific research. In the grammatical space-time dimension, it exhibits strong pan-space time, with linguistic forms detached from specific contexts and possessing cross-formal-scene generality.

1.2. Determining the Register Tendency of "keyi"

Outside work duty was the job prisoners envied most, because the doors of their cells were not locked during the day; they could walk in the corridors or yard, could smoke, could see the oily newspaper used to wrap family-sent food, and could secretly talk with others when the squad leader was absent [5].

In this example, in the communicative space-time dimension, the described object is the daily state of prisoners, with the implied audience being general readers [6]. The passage explains the specific benefits of outside work duty, belonging to life details, with a clear setting of "cells, corridors, yard," a concrete, tangible physical space. The passage aims to objectively state facts, without strong emotion or authoritative judgment, with a plain and natural tone. In the grammatical space-time dimension, it exhibits concrete temporality, manifested in detailed concretions such as "the oily newspaper used to wrap family-sent food." These elements indicate that the expression is in an informal but

universal context and can be judged as Common Register—neither restricted to close-distance colloquial communication among acquaintances nor attached to formal scenes, with broad audience suitability and strong contextual adaptability.

We sat in an open-air tavern. The beer was greenish because the bottles were green. Edgar, Kurt, and Georg wiped the dust off the table with their bare arms. Their arms could be seen where they had been on the tabletop.

In this example, in the communicative space-time dimension, it focuses on detailed depiction of daily leisure scenes, with the audience being general readers. The passage explains the cause of "greenish beer" and traces of characters' actions, belonging to descriptions of life phenomena. The setting is clearly "open-air tavern," a casual, informal social space. The passage aims to objectively depict scenes and traces, without argumentative or directive functions, with a natural and plain tone. In the grammatical space-time dimension, it exhibits concrete temporality, with linguistic forms dependent on specific scenes and immediate actions. This indicates that the expression is in a universal, life-oriented context, neither possessing the intimacy of colloquial register among acquaintances nor the distance of formal register, using plain description to suit the reading needs of a broad audience, and can be judged as Common Register.

Street celebration banners and red cloth streamers were visible everywhere; more women and elderly people than usual gathered in grocery stores; during festivals, each person could buy an extra half catty of white sugar with ration coupons, and an extra quarter catty of vegetable oil; no one would give up such benefits, so when women came out of the grocery stores, their baskets were always stuffed with various bottles and paper packages [7].

In this example, the described objects are ordinary people such as "women and elderly people," with the audience being general readers [7]. The passage explains the daily benefits of "buying extra white sugar and vegetable oil with ration coupons during festivals," belonging to trivial matters of daily necessities such as clothing, food, housing, and transportation, focusing on the scene of people enjoying benefits. The settings are "street" and "grocery store," concrete, life-oriented public spaces, tangible and perceptible scenes. The passage aims to objectively state social phenomena and people's behavior during festivals, with a plain and natural tone. In the grammatical space-time dimension, it exhibits concrete temporality. The entire passage uses popular and universal descriptions to cover a broad audience, judged as Common Register.

Based on the above criteria of "communicative space-time" and "grammatical space-time," the register tendencies of "ke" and "keyi" can be preliminarily determined as Solemn/Classical Register or Formal Register and Common Register, respectively [8].

1.3. Verification of the Register Tendencies of "ke-Keyi"

To further understand the main register tendencies of the modal verbs "ke" and "keyi," we supplement qualitative research with quantitative statistics. "Ke" in Modern Chinese is a high-frequency word with rich usages. Its usages can be roughly divided into four categories. First, adjective/morpheme usage, as a morpheme attached before verbs or adjectives to form adjectives expressing value or evaluation, such as "ke'ai" (lovable). Second, approximative adverb usage, used before numerals to express estimation of quantity, equivalent to "approximately," e.g., "From here to there ke you about ten li." Third, adversative conjunction usage, expressing contrast, equivalent to "keshi" (but) or "que" (yet). Fourth, modal verb usage, usually appearing in the form of "keyi." When collecting corpus of "ke" used as a modal verb in exemplary modern vernacular Chinese, the author found that due to the functional differentiation of "ke" and the widespread use of the "keyi" form, the available corpus in a single work is limited, and conclusions drawn from it may lack representativeness [9]. To this end, this study optimizes the corpus collection method by searching with the query "ke v" in the BCC corpus and limiting the search scope to the works of two authors, Lu Xun and Yu Pingbo. Corpus that is insufficiently covered in the corpus is also supplemented separately. This method can, to some extent, exclude interference from other usages of "ke" while expanding the corpus

coverage, thereby obtaining sufficient corpus samples. The main difference between the Formal Register and the Solemn/Classical Register is that the Solemn/Classical Register often selects those classical ancient components that are "understandable at first hearing" in modern contexts to achieve the expressive effect of "bringing the ancient into the present." Therefore, the table below adds the [+archaic borrowing] criterion to the three-way classification of character dialogue, narrative exposition, and personal emotion, in order to intuitively perceive the tendency of "ke" towards the Classical Register compared to "keyi."

As shown in the table above, in the selected works of the two authors, the corpus containing "ke" is predominantly in the narrative exposition category, which confirms our earlier inference that "ke" belongs to the Formal or Classical Register [2]. Furthermore, in Lu Xun's works, the proportion of "ke" used with "bringing the ancient into the present" is 34.47% of its total corpus, while for "keyi" this proportion is 22%; in Yu Pingbo's works, the proportion for "ke" is 61.82%, while for "keyi" it is 50%. These data indicate that "ke" has a more prominent tendency toward the Solemn/Classical Register than "keyi."

Lao She's linguistic style can be summarized by four core words: pure Beijing vernacular, refined plain description, barbed humor, and living characters' tones. In Lao She's selected works, the proportion of corpus with "bringing the ancient into the present" is extremely small [10]. "Ke" in the narrative exposition category accounts for 78.04% of its occurrences, while "keyi" in the narrative exposition category accounts for 58.77%. This also verifies our above conclusion that "keyi" tends toward the Common Register. (See Table 2)

Table 2. Classification of modal verbs in selected works of Lao She into three categories

Lao She												
Character Dialogue				Narrative Exposition				Personal Emotion				
+ Archaic		- Archaic		+ Archaic		+ Archaic		- Archaic		+ Archaic		
Borrowing		Borrowing		Borrowing		Borrowing		Borrowing		Borrowing		
Cou	Perc	Cou	Cou	Perc	Cou	Cou	Perc	Cou	Cou	Perc	Cou	
nt	enta	nt	nt	enta	nt	nt	enta	nt	nt	enta	nt	
ge		ge		ge		ge		ge		ge		
Ke	2	0.98	40	19.5	7	3.41	153	74.6	0	0%	1	0.49
		%	1%			%		3%				%
Ke	2	0.21	207	21.8	13	1.37	543	57.4	1	0.12	180	19.0
yi		%	8%			%		0%		%		2%

However, based on the above data alone, we still cannot determine whether "ke" leans more toward the Solemn/Classical Register or the Formal Register [2]. Nevertheless, from a diachronic evolutionary perspective, a clear macro-trend is discernible—the Solemn/Classical Register nature of "ke" has undoubtedly been continuously weakening from ancient times to the modern era.

First, in canonical documents from the Pre-Qin and Han dynasties, the auxiliary verb "ke" was often used in imperial edicts, legal codes, and Confucian classics and commentaries. Its semantics were frequently collocated with words like "yi" (should) and "dang" (ought), carrying top-down authoritative judgments, with a very strong Solemn/Classical flavor. For example:

1. Arrogance ke not be fostered, desires ke not be indulged, ambitions ke not be satisfied, joy ke not be extreme. (Book of Rites Qu Li I)
 2. The people ke be approached, but ke not be looked down upon. (Book of Documents Zhou Shu)
- The tone is solemn, carrying an admonitory stance [11].

By the Middle Chinese period, although the frequency of "ke" in Buddhist scripture translations and historical commentaries and eulogies was high, it had begun to penetrate more narrative texts, with a slight decline in solemnity.

Zheng Gongye, a grand master, was as wise as a marker and an arrow. Kong Rong at seven sui ke be compared to an adult. Xun Yu was refined, elegant, and learned, with the bearing of a king's assistant, yet his foresight and discernment could not fully realize his aspirations... All those praised ke be recounted for later generations. (Book of the Later Han Biographies of Zheng, Kong, and Xun)

If there is a bhikkhu who has attained arhatship, knows that he has attained it, has done what needed to be done, established the holy life, and will not receive further existence, his mind ke be delighted in, and his Dharma ke be revered. (Sutra of the Meaning of the Foot)

Entering the Early Modern Chinese period, "ke" appears in large numbers in vernacular novels, notes, miscellaneous discussions, and transcriptions of colloquial dialogues, such as:

1. This proposal ke be discussed. (Zhu Xi's Classified Sayings)
2. You Shi said, "What do you think of your daughter-in-law?" Fengjie lowered her head for a long while and said, "Whether this illness ke be cured or not, I don't know." (Dream of the Red Chamber, Chapter 11)

This is almost like everyday discussion speech.

This phenomenon has its internal theoretical reasons. Zhu Youming discussed the uses of "ke" as a verb, adjective, and auxiliary verb in Pre-Qin classical texts, showing that "ke" has multiple functions. This concentration of multiple functions on a single monosyllabic form, with its semantic conciseness and linguistic density, precisely matches the preference of the Solemn/Classical Register for grammatical forms. Feng Shengli's research shows that Solemn/Classical Register incorporates bound-words that require monosyllabic forms; forms exceeding the "disyllabic" template are unacceptable. The "ke" of the ancient period was precisely such a "concise" grammatical component; its monosyllabic morphology combined with multiple modal functions naturally suited the concise yet solemn expressive needs of canonical documents. However, with the diachronic evolution of Chinese, the semantic functions of "ke" underwent differentiation and transfer. "Ke" had multiple functions including transitive verb, intransitive verb, dynamic modal auxiliary, and deontic modal auxiliary since the Pre-Qin period, but by the early Middle Chinese period, its transitive verb usage no longer appeared, and by the late Pre-Qin period, its intransitive verb meaning "to be capable, to be competent" had also disappeared. This reduction in functions weakened the advantage of formal conciseness of "ke." At the same time, the functions of "ke" as a modal adverb and adversative conjunction gradually strengthened after the Early Modern period, meaning that "ke" increasingly appeared in non-Solemn/Classical speech acts.

Grammaticalization encompasses two levels: the grammaticalization of content words into grammatical components, and the condensation of phrases or word groups into single words. The grammaticalization process of "ke" is precisely the process of gradually grammaticalizing from a notional verb to an auxiliary verb, and further to a modal adverb and even a conjunction [12].

There is an inherent logical connection between this grammaticalization path and the weakening of the Solemn/Classical Register nature. One of the core mechanisms of grammaticalization is semantic bleaching—as the meaning of content words becomes grammaticalized, their specific semantic content gradually weakens while pragmatic functions gradually strengthen [8]. Specifically for "ke," its original meaning was "to permit, to allow," used as a transitive verb. Later it evolved into an auxiliary verb meaning "can, may, should, be worth," shifting from action meaning to modal judgment meaning. It further grammaticalized into a modal adverb used to strengthen interrogative or declarative mood, with further weakening of semantic content and significant increase in subjectification. Some scholars have clearly pointed out that this development process of

"ke" involves subjectification, and grammaticalization is precisely the process by which content words gradually become grammatical components without substantive meaning.

Semantic bleaching often accompanies register "sinking." When a grammatical component shifts from concrete action meaning (such as "permit") to abstract modal judgment meaning (such as "possibly") and further to purely pragmatic subjective expression (such as intensifying tone), the "weight" of its grammatical form decreases, and its solemnity is correspondingly diminished. The Solemn/Classical Register requires grammatical components to have sufficient semantic weight and formal conciseness to carry a solemn and elegant communicative attitude; overly grammaticalized components, being too "light" in meaning, cannot fulfill this function. Therefore, the further "ke" goes on the grammaticalization path, the lower its applicability in the Solemn/Classical Register.

Additionally, consider the impact of the disyllabification trend on the Solemn/Classical Register status of "ke." A notable trend in the historical evolution of Chinese is the gradual replacement of monosyllabic forms by disyllabic forms, and the intensity of this trend varies across different registers—for example, the retention rate of monosyllabic forms is relatively higher in the Solemn/Classical Register. The lexicalization of "keyi" is a typical example. The auxiliary verb "keyi" originated from the non-structural form of "auxiliary verb + preposition." When no overt object appeared after the preposition "yi," resulting in functional suspension and loss of its prepositional function, "ke" and "yi" underwent reanalysis and eventually lexicalized into the disyllabic auxiliary verb "keyi." Once formed, "keyi" competed functionally with "ke," assuming part of "ke"'s functions in modal expression [4].

This competition shows a significant divergence at the register level. In the Solemn/Classical Register, due to the preference for formal conciseness in terms of elegance, the monosyllabic "ke" retains relatively strong competitiveness; in the Formal Register, the disyllabic "keyi" has the advantage due to its clarity of expression and syllabic harmony; in the Common Register, "ke" shifts more toward modal adverb or conjunction functions, exerting its pragmatic value of subjective expression. The result of the competition is that the frequency of "ke" in the Solemn/Classical Register has relatively decreased, while "keyi" has increasingly entered positions that would originally have been occupied by "ke." In other words, the rise of disyllabic words has not simply "replaced" the monosyllabic "ke," but rather formed a functional division across register levels—"ke" struggles to maintain itself in the Solemn/Classical Register but can no longer return to its core position from ancient times.

As for the modern period, has the degree of Formal Register of "ke" surpassed its degree of Solemn/Classical Register? The author intends to use "The 70-Year Theoretical Selections of People's Daily" as a corpus to calculate the proportion of [+archaic borrowing] corpus, denoted as P1. P1 essentially represents components of the Solemn/Classical Register that are temporarily borrowed for use in the Formal Register. The proportion of [-archaic borrowing] corpus in Yu Pingbo's selected works above is denoted as P2. If P1 is high and P2 is low, this indicates that "ke" in Modern Chinese is essentially biased toward the Solemn/Classical Register but is borrowed into the Formal Register. If P1 is low and P2 is high, this indicates that "ke" in Modern Chinese is essentially biased toward the Formal Register, and the Solemn/Classical Register is also gradually modernizing [4]. If P1 and P2 are not significantly different, then "ke" is in a transitional state, a "cross-register word."

As shown in Tables 3 and 4, P1 is 4.22%, and P2 is 38.18%. P1 is far smaller than P2, indicating that in Modern Chinese, "ke" is more biased toward the Formal Register.

Table 3. Classification of modal verbs in selected works of two authors into three categories

Lu Xun		
Character Dialogue	Narrative Exposition	Personal Emotion

	+ Archaic		- Archaic		+ Archaic		- Archaic		+ Archaic		- Archaic	
	Borrowing		Borrowing		Borrowing		Borrowing		Borrowing		Borrowing	
	Cou	Perc	Cou	Perc	Cou	Perc	Cou	Perc	Cou	Perc	Cou	Perc
	nt	enta	nt	enta	nt	enta	nt	enta	nt	enta	nt	enta
	ge		ge		ge		ge		ge		ge	
Ke	4	2.65%	2	1.30%	49	31.8%	98	63.6%	0	0%	1	0.60%
Keyi	10	1.78%	32	5.67%	105	18.6%	397	70.3%	9	1.6%	11	1.94%

YU Pingbo

	Character Dialogue				Narrative Exposition				Personal Emotion			
	+ Archaic		- Archaic		+ Archaic		- Archaic		+ Archaic		- Archaic	
	Borrowing		Borrowing		Borrowing		Borrowing		Borrowing		Borrowing	
	Cou	Perc	Cou	Perc	Cou	Perc	Cou	Perc	Cou	Perc	Cou	Perc
	nt	enta	nt	enta	nt	enta	nt	enta	nt	enta	nt	enta
	ge		ge		ge		ge		ge		ge	
Ke	8	3.32%	7	2.90%	128	53.1%	82	34.0%	13	5.39%	3	1.26%
Keyi	8	3.88%	7	3.40%	95	46.1%	96	16.6%	0	0%	0	0%

Table 4. Proportion of "bringing the ancient into the present" corpus in the "Selections"

	The 70-Year Theoretical Selections of People's Daily			
	+Archaic Borrowing(P1)		-Archaic Borrowing(P2)	
	Count	Percentage	Count	Percentage
Ke	9	4.22%	204	95.78%

2. Differences in Prosodic Collocation

2.1. Syllable Number Preferences of Collocational Components

This section takes "ke" and "keyi" as anchor points to examine the prosodic requirements in their collocations, investigating from two directions: first, the preceding attachments to "ke" and "keyi"; second, the following components.

Below, relying on the CCL corpus, we examine the distributional differences of monosyllabic adverb phrases (AdvP_{Dan}), disyllabic adverb phrases (AdvP_{Shuang}), and polysyllabic adverb phrases (AdvP_{Duo}) before "ke" and "keyi," as shown in Table 5.

Table 5. Frequency of adverbs preceding "ke" and "keyi"

	ye (also)		jiu (then)	
	Count	Percentage	Count	Percentage
Ke	10680	16.97%	9921	15.71%
Keyi	52270	83.03%	53234	84.29%
Total	62950	100%	63155	100%
	wanquan (completely)		yijing (already)	
	Count	Percentage	Count	Percentage

Ke	497	3.72%	123	3.76%
Keyi	13326	96.28%	3145	96.24%
Total	13375	100%	3268	100%
	jiben shang (basically)	chabuduo (almost)	jue da bu fen (the vast majority)	tongguo nuli (through effort)
	Count	Percentage	Count	Percentage
Ke	109	9.49%	25	7.22%
Keyi	1039	90.51%	321	92.78%
Total	1148	100%	346	100%

According to Table 5, regardless of the syllable length of the adverb, the frequency of "keyi" is significantly higher than that of "ke," but the specific proportions show certain patterns with the number of syllables in the adverb. After the monosyllabic adverbs "ye" and "jiu," the proportion of "ke" is about 16%–17%, while "keyi" is about 83%–84%. Although "keyi" has an absolute advantage, the proportion of "ke" is the highest among all groups, indicating that the "1+1" rhythm formed by a monosyllabic adverb and the monosyllabic "ke" is relatively coordinated. After the disyllabic adverbs "wanquan" and "yijing," the proportion of "ke" drops sharply to about 3.7%, while "keyi" is above 96%. This is because the "2+1" rhythm in Chinese is not stable enough, while the "2+2" rhythm is more harmonious [13]. After polysyllabic adverbs such as "jiben shang," "chabuduo," and "tongguo nuli," the proportion of "ke" is generally below 10%, with "keyi" exceeding 90%.

Earlier, it was pointed out that "ke" and "keyi" are followed by VP. Next, by examining the syllable count of the head V of the VP, we observe the differences in prosodic selection between "ke" and "keyi" with respect to V.

From the news section of the BBC corpus, 10,000 instances each of the patterns "ke V" and "keyi V" were searched. Excluding non-modal verb usages of "ke" in "ke V," the following results were obtained: (As shown in Table 6).

Table 6. Syllable counts of verbs following "ke" and "keyi"

Verb Syllable Type	Frequency of "ke" (proportion)			Frequency of "keyi" (proportion)		
	Count	Percentage	Example	Count	Percentage	Example
V1	1730	17.95%	ke gong, ke zuo	6181	61.81%	keyi kao, keyi shi
V2	7836	81.29%	ke shiyong, ke tigao	3787	37.87%	keyi qinru, keyi kanchu
V3	73	0.76%	ke guigong yu, ke renji jiaohu	32	0.32%	keyi guiyin yu, keyi kandejian
Total	9639	100%		1000	100%	

From the above table, the proportion of "ke" followed by disyllabic verbs (81.29%) is significantly higher than that of "keyi" (37.87%).

2.2. Explanation of the Causes of Prosodic Collocation Differences

Feng Shengli pointed out that the "standard prosodic word" in Chinese is based on the disyllabic template, with two syllables forming one foot. The prosodic collocation of the "ke-keyi" group does not tend toward a monosyllabic word followed by a monosyllabic word forming a single foot; rather, the proportions of "ke" followed by monosyllabic words and "keyi" followed by disyllabic words are larger. This fact reveals that prosodic grammar and register grammar do not independently and unidirectionally act on Modern Chinese but are in a deep interactive relationship of mutual constraint and condition.

From the perspective of the syllable distribution of following verbs, the use of "ke" is highly concentrated before disyllabic verbs, accounting for 81.29%, while its proportion before monosyllabic verbs is only 17.95%. In contrast, "keyi" has an absolute advantage before monosyllabic verbs, accounting for 61.81%, while the proportion before disyllabic verbs is only 37.87%. Looking at the "neng-nenggou" group, their prosodic matching logic shows completely different characteristics: the monosyllabic "neng" accounts for 26.80% before monosyllabic verbs and 66.67% before disyllabic verbs. Although it also prefers disyllabic verbs, its proportion of monosyllabic collocations is much higher than that of "ke"; the disyllabic "nenggou" has an absolute core collocation with disyllabic verbs, accounting for 84.90%, with monosyllabic verb collocations accounting for only 13.52%. The prosodic collocation differences in the "ke-keyi" group are essentially not a simple matter of syllable number matching, but rather the synergistic effect of register attributes and prosodic rules: "ke," as a Formal Register word and a typical written language form, is highly bound to disyllabic verbs, because disyllabic verbs are the "raw material" of the Formal Register. "Keyi," as a Common Register word, its adaptability to monosyllabic verbs is essentially the constraint of the "monosyllable-dominant" prosodic feature of the colloquial register on grammatical choice.

From the perspective of the distributional characteristics of preceding adverbs, both "keyi" and "nenggou," as disyllabic modal words, show absolute advantage in adaptability to various adverbs: the proportion of "keyi" after adverbs such as "ye," "jiu," "wanquan," and "yijing" exceeds 83%, and the proportion of "nenggou" after similar adverbs is also generally higher than that of the monosyllabic "neng." However, the core difference between the two groups is that the register differentiation of the "ke-keyi" group is far greater than that of the "neng-nenggou" group: the proportion of the monosyllabic "ke" in all adverb collocations is less than 20%, only appearing in relatively higher proportion (40%) after adverbs with a high degree of written language character, such as "jue da bu fen" (the vast majority), which is highly consistent with the written language register attribute of "ke"; the monosyllabic "neng" accounts for over 70% after general adverbs such as "ye," "jiu," "wanquan," and "yijing," reflecting its broad-spectrum adaptability as a core colloquial modal word. This data also confirms the deep constraint of register grammar on prosodic choice. Generally speaking, the standard foot (i.e., disyllabic) has absolute realization rights, but under the constraint of the Formal Register, "ke" must be followed by a disyllabic word. At this point, after the standard foot operates, the remaining monosyllabic component "ke" is attached to the adjacent disyllabic foot to form a trisyllabic foot. This reflects that prosodic structure is not an independent grammatical rule but the external phonological realization of register attributes.

Furthermore, the syllable distribution differences between the two groups of modal words are essentially caused by the interaction between prosodic grammar and register grammar [7]. On the one hand, prosodic rules provide a phonological framework for register choice: a monosyllabic form is insufficient to form an independent foot, while the natural foot of Chinese is "at least two syllables and at most three"; the syllable choice of modal words must obey this prosodic foundation. On the other hand, register attributes in turn constrain the realization of prosodic structure: the written language register

attribute of "ke" allows it to only match disyllabic verbs to form standard feet, while the colloquial attribute of "neng" allows it to flexibly match different foot structures of monosyllabic and disyllabic verbs. This interactive relationship breaks the one-directional assertion that "prosody determines register" or "register determines prosody," proving that the two are an organic whole that mutually shapes and synergistically acts. It can be said that prosody is the material carrier of register, and register is the functional core of prosody; together, they act on the grammatical distribution of modal words in Modern Chinese.

3. Conclusion

This paper systematically compares the differences between "ke" and "keyi" and draws three conclusions. First, in terms of register attributes, "ke" tends toward the Solemn/Classical Register or Formal Register, while "keyi" belongs to the Common Register. Diachronic investigation shows that the Solemn/Classical Register nature of "ke" has been continuously weakening from ancient times to the modern era; grammaticalization accompanied by semantic bleaching leads to register "sinking." In Modern Chinese, the degree of Formal Register of "ke" has already surpassed its degree of Solemn/Classical Register. Second, in terms of prosodic collocation, "ke" is highly bound to disyllabic verbs, conforming to the preference of the Formal Register; "keyi" is more compatible with monosyllabic verbs, reflecting the Common Register's acceptance of the "2+1" prosodic structure. The distribution of preceding adverbs confirms that monosyllabic adverbs favor the occurrence of "ke," while polysyllabic adverbs greatly compress its space of use. Third, at the theoretical level, the differences in the "ke-keyi" group reveal the interactive mechanism between prosodic grammar and register grammar: prosody provides the phonological framework, register constrains the realization of prosodic structure, and the two mutually shape and synergistically act.

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