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Xuan Zhao: A corpus study of figurative senses of perception verbs cháng / pǐn cháng / pǐn wèi in Mandarin Chinese
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A corpus study of figurative senses of perception verbs *cháng* / *pǐn cháng* / *pǐn wèi* in Mandarin Chinese

The present study aims at probing into a collocation of the three Chinese verbs 尝 (*cháng*), 品尝 (*pǐn cháng*), and 品味 (*pǐn wèi*) and their objects (V+N construction) in order to explore the three verbs' distinguishing usage and characteristics. The data was retrieved from the Chinese Web Corpus 2017 (zhTenTen17) in Simplified Chinese, with Sketch Engine serving as the primary data analysis tool. The three words are found to be different in formality, semantic polarity, and meaning extension. They can be used figuratively because a person's bodily experience (e.g., gustatory perception) can provide the source for the target's psychological states, which leads to the application of the metaphors EXPERIENCING SOMETHING IS TASTING, VALUE IS SWEET, KNOWING IS TASTING, AESTHETICS IS TASTE. Furthermore, the collocation patterns of 尝/品尝+negatively connoted words demonstrate the deep and enduring suffering of the Chinese people, which gives evidence to the close relationship between language, culture, and cognition.

Keywords: perception verbs, *cháng*, collocation, metaphor, usage

1. Introduction

Taste, as one of the five senses of human beings, has aroused numerous discussions in human history. Chinese civilization has been known widely for its food culture worldwide. The rich food culture has already impacted the language, especially how people use the perception verbs 'taste' in Mandarin Chinese. When I made an initial pilot study of the perception verb 'taste' in the corpus of Chinese, I found that the Chinese verb 尝 (*cháng*, 'taste') is widely used in ancient Chinese and modern Chinese[1]. This character has gone through a big semantic change in its long history, and its figurative sense is astonishingly rich and diverse (Qin, 2018; Luo, 2023). I assume that studying taste-related verbs in the Chinese context could unveil the relationship between language, culture, and cognition.

Most studies on taste focus on examining basic taste adjectives in the Chinese

[1] The division of ancient Chinese and modern Chinese is based on the emergence of modern vernacular, which began from the May 4th movement in 1919, see Huang and Liao (2017: 3).

language from extended meaning, cognitive semantics, and cross-linguistic perspective (Jiang, 2008; Liao & Lin, 2017; Mo, 2018; Deng, 2018; Li, 2020). The five basic taste words that scholars prefer to explore are 甜 (*tián*, 'sweet'), 苦 (*kǔ*, 'bitter'), 辣 (*là*, 'spicy'), 咸 (*xián*, 'salty'), 酸 (*suān*, 'sour'). Jiang (2008) makes a sharp observation of the semantic change of the five words and elaborates on the various extended meanings of the taste words clearly to the readers. Liao and Lin (2017) apply Yin-Yang Theory, Five-Element Theory in traditional Chinese culture, and Cognitive Linguistic Theory to study the basic taste words in Yellow Emperor Bible. Mo (2018) systematically analyses the rules, cognitive mechanism, and motivation of meaning extension of Chinese taste words based on the relevant diachronic data. She finds that the meaning can extend from the senses of gustatory perception to other perceptual senses of visual, tactile, auditory, olfactory, and mental perception, respectively; on the other hand, meaning can extend from the senses of gustatory perception to the non-perceptual senses. Her interpretation is based on cognitive semantic theories, covering conceptual metonymy, conceptual metaphor, mental scanning, and profiling. Deng (2018) goes beyond the five basic taste terms, collects sensory adjectives as many as possible, and mainly focuses on a contrastive analysis of prototypical members and prototypical features based on the diachronic and synchronic data in both languages. As her study has to deal with numerous data, it cannot delve into the constructions and rich meanings of a specific gustatory adjective. Furthermore, Li (2020) compares basic taste words across Chinese and Vietnamese from macro, meso, and micro perspectives.

In the above-mentioned studies, linguistic synaesthesia is a topic that cannot be ignored. The cross-sensory uses of basic-level adjectives can be found in many languages (Zhao, 2019; Galac & Zayniev, 2023), though its universality and its theoretical foundations evoke dispute (Aikhenvald & Storch, 2013; Winter, 2019). Winter (2019: 11) argues that the folk model of five senses is "an analytical choice that a linguist studying sensory languages makes", and the choice may not be quite right. Aikhenvald and Storch (2013: 3) also hold that the categorisation of senses is culture-specific and the conventional typology of senses is "Eurocentric" and may not apply to non-Europeans. For example, In Manambu, a Ndu language from New Guinea (Aikhenvald & Storch, 2013: 17), the same verb bears meanings of different perception and cognition, such as hearing, listening, thinking, smelling, obeying, understanding, etc.

In the folk model of Mandarin Chinese, the verbs expressing the five senses are 看 (*kàn*, 'see'), 听 (*tīng*, 'hear'), 闻 (*wén*, 'smell'), 尝 (*cháng*, 'taste'), and 触 (*chù*, 'touch'), even though 闻 (*wén*) is still widely used as 'hearing' in written Chinese. 感觉 (*gǎnjué*, 'feel'), which refers to the sense of touch, can indicate

general sensory perception. According to Sweester (2002/1990: 36), the study of the cognates of taste as a verb shows that "the Indo-European root could have meant 'try' rather than 'taste'". Luo (2023) argues that the English word taste takes its present form from Old French verb *taster*, which means 'touch, try, taste'. Ibarretxe-Antuñano (2019) and Galac (2020) study perception metaphors in Indo-European languages using cognitive linguistic theory, with their focus on perception verbs. However, the studies on the figurative senses of Chinese perception verbs are underexplored.

The prototypical Chinese perception verbs denoting gustatory sense are 尝 (*cháng*) and 味 (*wèi*). However, 味 (*wèi*) as a verb cannot be used independently in modern Chinese and has to be combined with other Chinese verbs to form disyllabic word, such as 回味 (*huí wei*, 'to call to mind'),意味 (yì wei, 'to mean'). In the two disyllabic words, 味 is always regarded as a noun, the object of action. The verbal property of this word has weakened. In contrast, the character 尝 can be used independently and exhibits remarkable productivity in Mandarin Chinese, forming compounds like 尝试 (*cháng shì*, 'try'), 品尝 (*pǐn cháng*, 'taste'), and 饱尝 (*bǎo cháng*, 'experience fully; endure'). As the three verbs 尝 (*cháng*), 品尝 (*pǐn cháng*), and 品味 (*pǐn wèi*) are most often used in Chinese people's daily life, share semantic similarities and carry subtle semantic variations, the present study aims at probing into the collocation of the three Chinese verbs and their objects (V+N construction) in order to explore their distinguishing usage and characteristics, then the figurative and non-figurative meaning of the perception verbs are examined. Since the introspective method cannot display the usage patterns of the language, a corpus method is an optimal choice for seeking patterns in lexical collocation. The previous studies fail to focus on the collocation pattern of three verbs and their objects by using corpus method, which makes the present study meaningful. The data are retrieved from the TenTen corpus family. The study assumes that the rich figurative senses of the three Chinese verbs are closely related to the conventional food culture in China.

The study attempts to answer the following questions:

(1) How does the corpus analysis shed new light on the usage of three taste-related verbs in Mandarin Chinese?

(2) How does the semantic analysis of the three taste-related Chinese verbs contribute to our knowledge of cultural cognition?

After a general introduction in Section 1, the rest of the article is structured as follows: Section 2 provides a brief discussion of the theoretical background, focusing on perception verbs, semantic change, and the interplay between conceptual metaphor theory and cultural cognition. Section 3 outlines the study's design, including its aim and scope, data sources, and analytical method. The

results are summarized in Section 4, where various usages of the verbs are categorised. Their figurative senses are further analysed from a cognitive perspective. Section 5 attempts to answer the two research questions. In the last section, we come to a natural conclusion and discuss the implications for future work.

2. Theoretical background

2.1. Perception verbs and semantic change

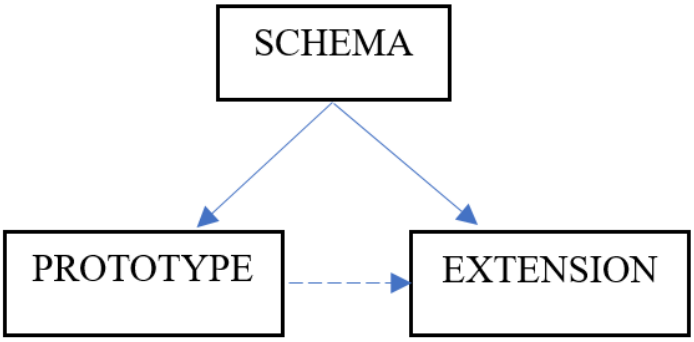
As the Greek philosopher Protagoras (around 485-415 BCE) said, "Of all things man is the measure" (World history encyclopaedia). His words imply the embodiment of meaning; in other words, man understands the whole world through his bodily experiences. After more than two-thousand years, the newly-founded linguistics school — Cognitive linguistics — developed the idea of Protagoras, and they claim that cognition (and thus language) is embodied (Lakoff & Johnson, 1980, 1999; Wang, 2006; Langacker, 2008). More specifically, we perceive the world through our mind's interaction with the sensory and motor organs (Langacker, 2008: 500). For example, taste is a physical sense, but the usage of taste can go beyond gustatory domain because taste can be used to express personal preferences across different languages (Sweester, 2002/1990: 37; Winter, 2019: 48). In Chinese, one can say 品味诗歌 (*pǐnwèi shīgē*, 'to taste the richness of poetry'), which indicates that AESTHETICS IS TASTE. The conceptual metaphor takes taste as the source domain to describe the abstract concept in the domain of aesthetics. Here, the semantic change happens to the perception verb 品味, with the gustatory perception domain mapping onto the mental perception domain.

Recent cognitive linguistics adopts a non-objectivist perspective on meaning, offering a credible explanation for semantic change, a key aspect of linguistic evolution. Győri clarifies that semantic change cannot be "explained satisfactorily in pragmatic terms alone" (Győri, 2002: 126), since the entire communication process engages mental activity. Anttila (1989: 133) also maintains that mental or psychological factors play a crucial role in the emergence of new meaning. In the view of most historical linguists, metaphor, metonymy, and other figurative uses arise from cognitive processes (Győri, 2002).

Langacker, a key figure in cognitive linguistics, argues that "lexical item used with any frequency is almost invariably polysemous" (2008: 37). He further expounds that some senses are more prototypical while others are more schematic. His idea is rooted in prototype theory, which originates from Eleanor Rosch's research into the internal structure of categories in the mid-1970s (see Geeraerts, 2006/1989). Therefore, Langacker introduces a network model that organically combines prototype theory and categorisation, viewing category members as

nodes within a network linked by different types of categorizing relationships (see Lakoff, 1987; Langacker, 1987, chapters 10–11). The model can be succinctly summarised in Figure 1 below.

Figure 1: The network model (Langacker, 1991: 271)



Take the Chinese perception verb 尝 (*cháng*) as an example. The gustatory perception can be viewed as the schema, which can be instantiated by specific gustatory words such as *cháng*. The solid arrow represents a "specilization" relationship, while the dashed arrow indicates "some conflict in specifications between the basic and extended values", as Langacker (1991: 266) puts it. Here, the primary meaning of *cháng* is 'to differentiate various flavours', as in the word 尝美味 (*cháng měiwèi*, 'to taste delicacy'), but later on, this word's meaning is extended beyond the domain of food. It can refer to 'any act of trying to do something', as in the word 尝试 (*cháng shì*, 'to give it a try'). Then, this extended meaning becomes conventionalised and takes on a new extended meaning, 'to experience/go through', as in the word 尝苦果(*cháng kǔguǒ*, 'to taste bitter pill'). If we apply Langacker's network model to describe the semantic structure of a polysemous word, the different meanings can be represented by nodes in the network. The primary meaning can be viewed as the global prototype, while an extended meaning, if it becomes central to other related meanings, can be considered a local prototype (see Langacker, 1991: 266; Győri, 2002: 151–152).

2.2. Conceptual metaphor theory and cultural cognition

The cognitive construal of the semantic change can uncover the metaphors entailed in the collocation of the perception verbs and their objects (V+N construction). In *Metaphors We Live By*, Lakoff and Johnson (1980) have explored how metaphors are shaped by and, in turn, shape cultural understanding. They hold that different languages and cultures may conceptualise the world differently through metaphors. In Chinese, the conceptual metaphor VALUE IS

SWEET (价值是甜, *jiàzhí shì tián*) exemplifies how abstract notions are structured through embodied sensory experiences, as argued by Lakoff & Johnson (1980). This mapping arises from the universal of sweetness with pleasure but is culturally elaborated in Chinese through idioms like 苦尽甘来 (*kǔ jìn gān lái*, 'after bitterness comes sweetness'), which frames perseverance as a journey from hardship (bitterness) to reward (sweetness). Kövecses (2005, 2006, 2024) provides a well-founded argument for the universality and variation of metaphor in culture.

Sharifian (2017), as a pioneer of cultural linguistics, has developed a theoretical and analytical framework of cultural cognition, cultural conceptualisations, and language. He explains the relationship between language and cultural cognition in the following words:

> *Inherent within the system of every language are categories, schemas, conceptual metaphors and propensities for certain perspectives that reflect cultural cognitions of those who have spoken the language over the history of its existence.*
> (Sharifian, 2008: 122–123)

In cognitive psychology, 'cognition' traditionally refers to "mind and mental activity" (Sharifian, 2011: 19). Extending this, Wen (2024) argues that linguistic research must foreground cultural values and cognition. In view of the above, the semantic change of Chinese perception verbs must be analysed within their unique cultural context, particularly through the lens of Chinese food culture and national spirit, which have profoundly shaped these linguistic developments.

3. Methodology

3.1. Data collection

The present study is based on data retrieved from the TenTen corpora, which covers more than 100 languages, such as English, Chinese, French, Spanish, Arabic, Hungarian, and Russian. The Chinese Web Corpus 2017 (zhTenTen17) Simplified will be selected in the study. It comprises texts collected from the Internet, with over 13.5 billion words. Here, Simplified Chinese is contrasted with Traditional Chinese. The data encompass a wide variety of genres, topics, text types, and web sources, utilizing a special program to collect only "linguistically valuable content" (see website sketchengine.eu). The features of the TenTen corpus make it an optimal choice for investigating the perception verbs in everyday language use.

3.2. Data analysis

The study mainly uses Sketch Engine as the data analysis tool. Sketch Engine can help identify the salience, frequency, and collocations in the language; in addition, it can measure the association between the central word and the collocates. Galac (2021) extracts data from the TenTen corpora on Sketch Engine and presents an empirical examination with a view to mapping out the semantic and formal particularities of the primary basic-level multimodal perception verbs in French, Spanish, and Hungarian: Fr. *sentir*, Sp. *sentir*, and H. *érez*. Galac (2024) makes a manual semantic analysis of altogether 6,800 occurrences of 18 sensory nouns (three per sensory modality in English and Hungarian) in the TenTen corpora. Inspired by his methodology, the data analysis procedure in this study follows these steps: firstly, I searched for the frequency of three Chinese perception verbs 尝 (*cháng*), 品尝 (*pǐn cháng*) and 品味 (*pǐn wèi*). Then, I checked the right context of the keywords in the TenTen corpora. After limiting the number of words following the keyword as two (0 +2[2]), the study manually sampled the nominal objects, showed the most frequent items occurring to the right context of the keyword, and identified the association patterning of the perception verb. Collocation analysis employs various association measures to evaluate the relationship between the central word and its collocates, including T-score, MI, and logDice. The rationale of association measures (AM) has been clarified by Gries (2012) as well as by Gries and Durrant (2020). This study uses logDice to quantify the mutual attraction between the central word and its collocates, as it is considered the most reliable measure in linguistic software such as Sketch Engine (Rychlý, 2008). The bigger the logDice number, the stronger the association. Conventionally, if the logDice association value is below 5, it means that the association strength of the central verb and its object is not strong. For this preliminary study, I focus on the most frequent 20 types of V (尝/品尝/品味) +N constructions in zhTenTen17. As the data automatically annotated by the corpus "cannot be 100 percent accurate due to the fuzzy nature of language" (Sass, 2022: 605), I manually cleaned the co-occurrence words which are not nouns or objects, such as 尝尝 (*cháng cháng*, 'to have a bite'), 尝遍 (*cháng biàn*, 'to have tasted all'). Here, the second word 尝 in *cháng cháng* is a verb, while the second word 遍 (*biàn*) in *cháng biàn* functions as an adverb.

Then the perception verbs' collocations are further analyzed using conceptual metaphor theory. The specific metaphor patterns are identified based on the taste

[2] This is the collocation window: 0 +2, which means that 0 is the verbal keyword and +2 is the subsequent words. Here I chose the number of words following the keyword as two because modern Mandarin has been moving away from the monosyllabic characteristics of Classical Chinese; in other words, morphemes in modern Mandarin words tend to be disyllabic (Li & Thompson, 1989: 392).

metaphors summarized in Ibarretxe-Antuñano (2019) and Bagli (2021). Lastly, the semantic analysis runs through the whole process.

4. Results

4.1 Various usages of 'taste' in Chinese

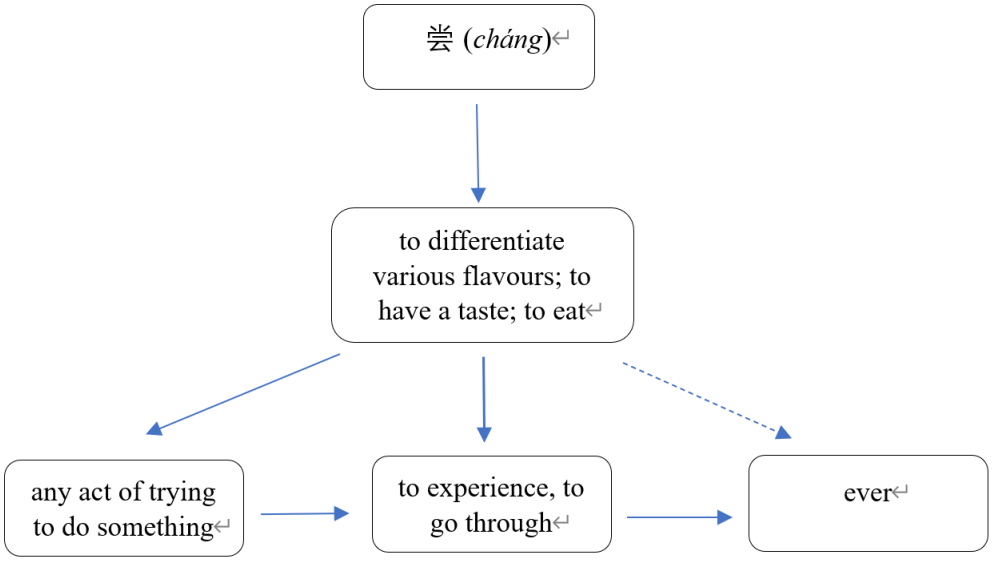
The frequency of the three Chinese perception verbs in the Chinese Web Corpus 2017 (zhTenTen17) Simplified is as follows:

Table 1. The frequency of the three Chinese perception verbs

Items	FREQ	WORDS (M)
尝 *cháng*	99430	5.99
品尝 *pǐn cháng*	252881	15.24
品味 *pǐn wèi*	94348	5.69

All three words are related to "experiencing taste" semantically, but each of them has a distinctive usage, which can be evidenced in the following collocation analysis. According to the online 汉语大词典 *Hànyǔ Dà Cídiǎn* (Grand Dictionary of Chinese Language, HYDCD), the first word 尝 (cháng), as a single-syllable word in Chinese carries five principal meanings: a) *to differentiate various flavours*, *to have a taste*; b) *to eat*; c) *any act of trying to do something*; d) *to experience, to go through*; e) *ever, an adverb*. The relations between the five meanings are diagrammed in Figure 2:

Figure 2. The association of the principal meanings of 尝 (*cháng*)



Here, the arrows with solid lines denote the evolution relationship between the word (sense) on the one side of the arrow and the sense on the other side of the arrow. The sense in the middle part of the diagram is the basic meaning of 尝 (*cháng*), which combines the first and the second principal meanings in the dictionary. The three alternative boxes at the bottom include senses which are extended from the basic meaning. Here the shift from its core sensory meaning 'to have a taste' to a more abstract experiential meaning 'to experience, to go through' can be explained through cognitive linguistics frameworks, particularly conceptual metonymy and metaphorization processes. The act of tasting is a subset of the broader concept of 'experiencing', which is a PART FOR WHOLE metonymic relationship. Meanwhile, the semantic extension also involves the underlying metaphor EXPERIENCING IS TASTING. However, the arrow with dotted line implies that the evolution relationship is not transparent. Qin (2018: 157) argues that the connection between the original meaning of 尝 (cháng) as 'to have a taste' and its extended meaning of 'ever' can be explained through metaphorical evolution in Chinese, but he fails to point out that the extension from a verb to a marker of past experience is the grammaticalization of 尝, indicating a completed or past action. The second word 品尝 (*pǐn cháng*), as a two-syllable word, means 'to taste and savour', with *pǐn* emphasizing 'to carefully judge or appreciate the taste/quality', and *cháng* meaning 'to physically try or taste something'. According to HYDCD, in the ancient times it could mean (the emperor's servant) tasted all the different delicacies before the emperor started his meal. The third word 品味 (*pǐn wèi*), as a two-syllable word, means 'to savour and ponder', which shares semantic overlap with *pǐn cháng*, though nuanced distinctions exist. Here 味 (*wèi*) means 'to ponder deeply'. 品尝 stresses the sensory experience whereas 品味 emphasizes the aesthetic experience. The latter can mean savouring exceptionally delicious and well-prepared dishes, but can also mean enjoying and appreciating abstract things, such as life, elegance, and poetry, etc. The verb can be used figuratively.

Taking an overview of these three words, we can see that the meaning of 尝 (*cháng*) is more varied than the other two words because 尝 possesses sense *c* and *e* (as mentioned above), which are not shared with 品尝 (*pǐn cháng*) and 品味 (*pǐn wèi*). However, the frequency of 品尝 (*pǐn cháng*) in the zhTenTen17 is around 2.6 times more than that of 尝 (*cháng*) and 品味 (*pǐn wèi*) respectively. The possible explanation might be: as TenTen corpus collects data from many web sources, *pǐn cháng*, as a formal lexical item in written Chinese, is naturally more often found in literature, news, and advertisement. The word *cháng*, though a single-syllable word, is more commonly used in spoken language, leading to its

relatively low frequency compared with *pǐn cháng*. The word *pǐn wèi* has more positive polarity compared with *pǐn cháng*; thus, the usage becomes more limited. The distinguishing differences of these words will be demonstrated in the next section.

4.2. Figurative sense of perception verbs 'taste' in Chinese

4.2.1. 尝 (*cháng*)

According to Figure 2, the three senses at the bottom are figurative senses of the word 尝 (*cháng*), as they are no longer limited to the gustatory organ or physical perception. After identifying the multiple meanings of the three perception verbs in Section 4.1, one should examine its distribution: its salience, frequency, and specific situational context and function for the use of the metaphor (Ibarretxe-Antuñano, 2019: 45). Table 2 lists the top 20 objects of 尝 (*cháng*) in zhTenTen17 Simplified.

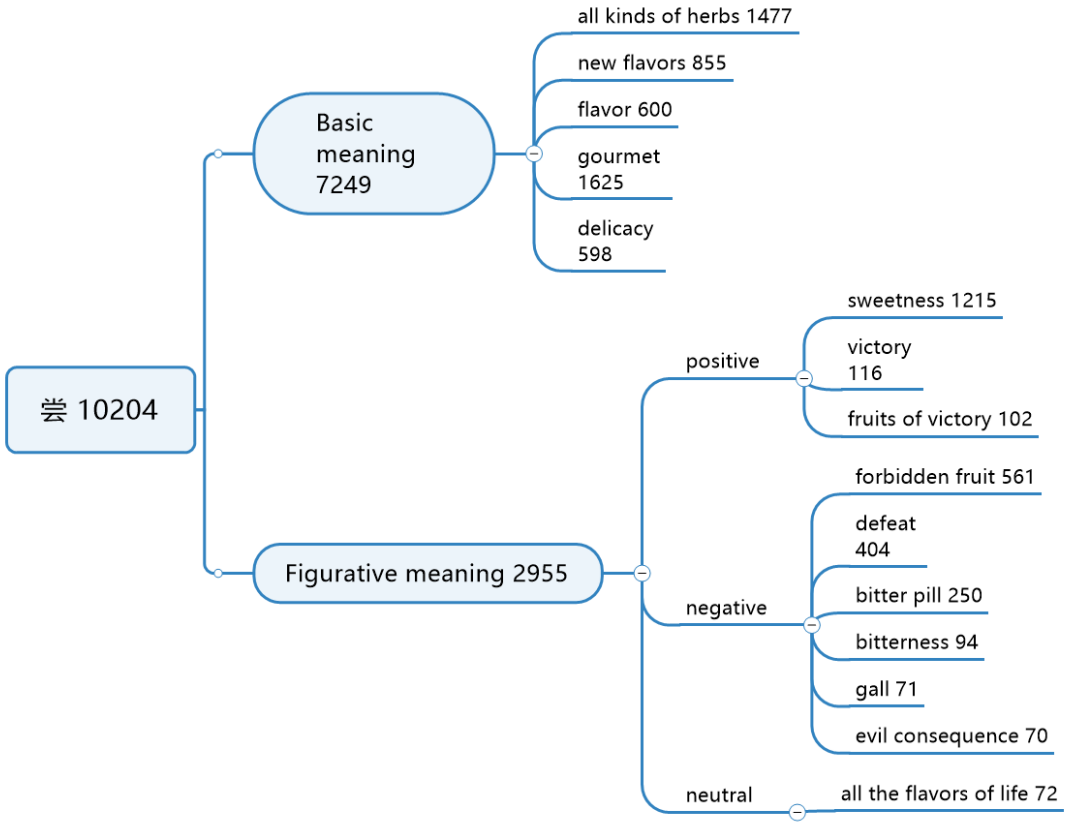
Table 2. Top 20 尝+N constructions in zhTenTen17 Simplified

Number	Collocate	Freq	Coll. freq.	T-score	MI	logDice
1	百草 all kinds of herbs	1477	14127	38.42956	14.09076	8.7354
2	甜头 sweetness	1215	36959	34.8505	12.42158	8.18937
3	禁果 forbidden fruit	561	4713	23.68425	14.2779	7.46365
4	败绩 defeat	404	6883	20.0977	13.25786	6.96025
5	鲜 new flavors	855	204100	29.19856	9.44934	6.5283
6	滋味 flavor	600	159723	24.45582	9.29208	6.24537
7	苦果 bitter pill	250	12683	15.80658	11.68365	6.19119
8	美食 gourmet	1625	730035	40.20277	8.53709	6.0044
9	美味 delicacy	598	337125	24.37143	8.20955	5.4882
10	味道 taste	1139	759950	33.61414	7.96648	5.44062
11	胜绩 victory	116	5188	10.76744	11.86549	5.18321
12	胜果 fruits of victory	102	2011	10.09831	13.0472	5.04214
13	小吃 snacks	321	262696	17.82861	7.67187	4.8603
14	咸淡 saltiness	88	3049	9.37888	12.23379	4.81446
15	海鲜 seafood	288	237791	16.8866	7.65907	4.80659
16	风味 local specialty	258	218611	15.98082	7.6217	4.73237
17	苦头 bitterness	94	19214	9.68348	9.67319	4.69831
18	苦胆 gall	71	1400	8.42515	13.04701	4.52818
19	酸甜苦辣 all the flavors of life	72	24810	8.46776	8.91977	4.24715
20	恶果 evil consequence	70	22251	8.35066	9.03618	4.23654

The order of the list does not merely rely on the raw type frequency; it is ordered according to the logDice value of the central verb and its object. The logDice value of the first eight collocates is above 6, which means the association strength of 尝 (*cháng*) and the collocates is very strong. Then, I categorised the 20

constructions in Table 2 based on the basic meaning and figurative meaning, evaluated the figurative meaning, and further divided them into three types based on their semantic polarity: positive, negative, and neutral. There are 10 constructions with the basic meaning of *cháng*, while the other 10 constructions take figurative meaning. My categorisation of the word 尝 and its collocates (with their raw frequency) are presented in Figure 3:

Figure 3. The categorisation of the word 尝 and its collocates



The constructions with the basic meaning of 尝 account for 71% of all the top 20 constructions (7249 out of 10204), while those with figurative meaning account for 29% (2955 out of 10204) based on their raw frequency. In the basic meaning subgroup, we obtained 1477 tokens of 尝百草 (*cháng bǎicǎo*, 'to taste all kinds of herbs'), which is quite salient in the data. To further probe into the subject of the verbal phrase, the majority of the concordance lines retrieved indicate that *Shennong* ('Yan Emperor') is the subject of 尝百草 (see literal translation: 'tasting a hundred herbs'), which can date back to the mythology of ancient China and the story is engraved in the mind of Chinese people. In the figurative meaning

subgroup, constructions with positive connotations account for 48.5%, those with negative connotations account for 49.1%, while those with neutral connotations only account for 2.4%. If we observe the logDice of the co-occurence of 尝 and its objects, the top five collocates are 百草 (*bǎicǎo*), 甜头 (*tiántou*), 禁果 (*jìnguǒ*), 败绩 (*bàijì*), 鲜 (*xiān*), whose logDice score are all higher than 6.5. Aside from *bǎicǎo* and *xiān*, the other three collocates are used figuratively.

Sweetser (1990) first proposes the Mind-as-Body metaphor to show the correlations between "our external experiences and our internal emotional and cognitive states" (Sweetser, 2002/1990: 30). She further adds that the mappings are "unidirectional": bodily experience provides the source for the target psychological states. Take the metaphor KNOWING IS TASTING as an example. In the sentence, "Reading his poetry is like tasting a complex dish — you discover new flavours with every bite", tasting experience helps one understand the target mental states of acquiring knowledge through reading. The metaphor belongs to the more general metaphor COGNITION IS PERCEPTION.

Ibarretxe-Antuñano (2019) has summarized four taste-related metaphors in Table 3.

Table 3. Taste metaphors (Ibarretxe-Antuñano, 2019: 48)

Taste	EXPERIENCING SOMETHING IS TASTING
	PRODUCING A FEELING IS TASTING (ENJOYING/DISLIKING)
	PERSONAL PREFERENCE IS TASTE
	KNOWING IS TASTING

Bagli (2021) gives an in-depth analysis of taste metaphor and proposes eight taste metaphors that emerge as "motivating the semantic expansion of linguistic items across the history of English" (Bagli, 2021: 110–126). Contrasting these metaphor patterns with the Chinese figurative usage of 尝, we find that the conceptualization of the perception verb is sometimes the same across different languages. 尝甜头 (*cháng tiántou*) literally means 'tasting sweetness', but the extended meaning here is 'tasting value or advantage'. It corresponds to the metaphor VALUE IS SWEET (Bagli, 2021: 121–122). 尝禁果(*cháng jìnguǒ*, 'to taste forbidden fruit') entails two metaphorical models. The first metaphor is KNOWING IS TASTING. 禁果(*jìnguǒ*), originating from the Biblical story, refers to the fruit from the tree of knowledge of good and evil in the Garden of Eden. After Adam and Eve eat the fruit, they become aware of their nakedness and make fig-leaf clothes, so tasting helps people gain knowledge. The second metaphor is

EXPERIENCING SOMETHING IS TASTING. In the Chinese context, 禁果 implies "especially something sexual, that is even more attractive because it is not allowed" (online Cambridge dictionary). 偷尝禁果 (*tōu cháng jìnguǒ*, 'to steal a taste of forbidden fruit') always denotes teenagers' initial sexual behavior before they get married. It conveys the speaker's negative evaluation of the event.

尝败绩 (*cháng bàijì*) conveys an experience of defeat, which uses the metaphor EXPERIENCING SOMETHING IS TASTING. 尝苦果 (*cháng kǔguǒ*, 'to taste bitter pill') obtains 250 tokens, taking a 8.5 percent proportion among the figurative sense subgroup. The phrase still compares experiencing something to tasting, with a bitter pill metaphorically referring to the consequences that improper behavior might bring; therefore, the metaphor EXPERIENCING SOMETHING IS TASTING is used. In Chinese, there are alternative expressions for life's bitterness, such as 尝苦胆 (*cháng kǔdǎn*, 'to taste gall'), 尝苦头(*cháng kǔtou*, 'to taste bitterness'). In the construction 尝+N, if the noun (object) refers to something negative, such as forbidden fruit, defeat, bitter pill, gall, and bitterness, the metaphor EXPERIENCING SOMETHING IS TASTING can be further specified—for instance, EXPERIENCING SOMETHING NEGATIVE IS TASTING (BITTERNESS/SOURNESS).

4.2.2. 品尝 (*pǐn cháng*)

As to the perception verb 品尝 (*pǐn cháng*), I manually removed the data that are not nouns or objects, such as 品尝地道 (*pǐn cháng dì'dào*, 'taste original'), 品尝一下(*pǐn cháng yī xià*, 'try a bite'). 地道 (*dì'dào*) is an adjective, while 一下 (*yī xià*) functions as an adverb. Then, I retrieved the most frequent 20 types of "品尝+N" constructions in zhTenTen17 Simplified. Table 4 lists the top 20 collocates of 品尝 (*pǐn cháng*) in the corpus.

Table 4. Top 20 品尝+N constructions in zhTenTen17 Simplified

Number	Collocate	Freq	Coll. freq.	T-score	MI	logDice
1	美味 delicacy	6899	337125	82.99836	10.39102	8.5818
2	美食 gourmet	11164	730035	105.5545	9.97073	8.53986
3	风味 local specialty	2976	218611	54.49165	9.80292	7.69229
4	小吃 snacks	2442	262696	49.33558	9.25258	7.27802
5	美酒 good wine	1378	66650	37.09406	10.40581	7.14276
6	海鲜 seafood	1651	237791	40.54331	8.83156	6.78472
7	佳肴 delicious food	917	49305	30.25719	10.2531	6.6357
8	特色 specialty	8828	2971080	93.47552	7.60708	6.48747
9	咖啡 coffee	1343	468374	36.45219	7.55571	5.93109
10	葡萄酒 wine	1615	698217	39.92228	7.24577	5.79808
11	红酒 red wine	696	197549	26.26769	7.85286	5.662
12	农家菜 farm dishes	367	6142	19.15236	11.93691	5.53692
13	月饼 mooncake	581	175796	23.99279	7.76062	5.47286
14	菜肴 dish	451	96179	21.16774	8.26532	5.40387
15	大餐 lavish meal	412	69048	20.24594	8.61296	5.39012
16	特产 regional delicacy	427	133473	20.56554	7.71367	5.17853
17	烤鸭 roast duck	312	33116	17.63495	9.27193	5.15976
18	滋味 flavor	445	159723	20.97963	7.51422	5.14326
19	味道 taste	988	759950	31.064	6.41459	4.99841
20	原味 original flavor	312	72134	17.60128	8.14878	4.97526

It is interesting to find that the top 20 collocates of verb 品尝 (*pǐn cháng*) are all related to various palatable food or drink; therefore, 品尝 takes its basic meaning in the 20 constructions and is not used figuratively. The logDice scores of the first eight words are higher than 6.48, which indicates that the association strength between *pǐn cháng* and its collocates (delicacy, gourmet, local specialty, snacks, good wine, seafood, etc.) are very strong. As the verb *pǐn cháng* means 'to taste and savour', the constructions convey the joy of savoring a variety of fine foods. Compared with Table 2, Table 4 has only 2 collocates with logDice value lower than 5, which might mean that the keyword has stronger or more stable associations regarding the investigated pattern. The result provides compelling evidence that Chinese people derive pleasure from tasting gourmet delicacies, which is reflected in the numerous 品尝+N constructions. The data in Table 4 also gives explanation about the salient frequency of *pǐn cháng*, as shown in Table 1.

4.2.3 品味 (*pǐn wèi*)

Regarding the perception verb 品味 (*pǐn wèi*), I manually removed the data that are not nouns or objects, such as 品味一番 (*pǐn wèi yī fān*, 'enjoy it thoroughly'), 品味舌尖 (*pǐn wèi shé jiān*, 'Savor the taste on the tip of the tongue'). 一番 (*yī fān*) is a classifier, while 舌尖 (*shé jiān*) does not functions as an object. Then, I retrieved the most frequent 20 types of "品味+N" constructions in zhTenTen17 Simplified. The top 20 collocations of 品味 (*pǐn wèi*) in the corpus are listed below.

Table 5. Top 20 品味+N constructions in zhTenTen17 Simplified

Number	Collocate	Freq	Coll. freq.	T-score	MI	logDice
1	美酒 good wine	244	66650	15.59624	9.33058	5.63405
2	美食 gourmet	1142	730035	33.67066	8.1039	5.50439
3	人生 life	2231	1723410	47.026	7.8308	5.32975
4	佳肴 delicious food	151	49305	12.26539	9.07312	5.10618
5	高雅 elegance	217	112239	14.6876	8.4095	5.10516
6	书香 the beauty of books	192	92897	13.81829	8.50578	5.07039
7	茶香 tea aroma	97	27703	9.83286	9.26632	4.70279
8	红酒 red wine	224	197549	14.89158	7.63967	4.65226
9	诗歌 poetry	255	282932	15.86798	7.30842	4.46908
10	百态 the richness of life	75	17494	8.64877	9.55841	4.45772
11	语言 language	1346	2021278	36.37461	6.87179	4.38181
12	咖啡 coffee	338	468374	18.23992	6.98774	4.29882
13	美味 delicacy	256	337125	15.8802	7.06124	4.28109
14	酸甜苦辣 all the flavors of life	70	24810	8.34974	8.95481	4.26677
15	佳酿 good vintage	59	16310	7.66907	9.31334	4.12689
16	经典 classics	690	1375451	25.97012	6.46314	3.94327
17	诗词 poems	110	141051	10.41162	7.09967	3.93661
18	时尚 fashion	763	1752682	27.26167	6.25857	3.75876
19	风情 the local charm	183	386287	13.36539	6.38055	3.64112
20	字里行间 the nuances of words	45	24390	6.68753	8.34202	3.63443

Table 5 shows that the collocates following the central verb are more abstract than those in Table 2 and 4, which list many collocates related to food or drink. Moreover, the logDice value of 品味 and its collocates is not very strong, with a value lower than 6. However, the figurative meanings of the "品味 + N" constructions are worth exploring. It has been found that 品味 (*pǐn wèi*, 'to savor and ponder') can apply not only to fine wine and gourmet food but also to abstract concepts. In the corpus, we retrieved 2231 tokens of 品味人生 (*pǐnwèi rénshēng*, 'to savour life'), 1346 tokens of 品味语言 (*pǐnwèi yǔyán*, 'to savour the beauty of language'), 763 tokens of 品味时尚 (*pǐnwèi shíshàng*, 'to have a taste for

fashion'), 690 tokens of 品味经典 (*pǐnwèi jīngdiǎn*, 'to savour the classics'). In short, the top 5 collocates are life, language, gourmet, fashion, and classics. Apart from 美食 ('gourmet'), four other words are used figuratively.

Here, 品味 can be glossed as 'to relish, approve of, enjoy, like, take pleasure in' (the online Oxford English Dictionary, hereinafter OED *taste*, v, II.8). The four phrases liken life, language, fashion, and classics to something palatable that necessitates careful chewing and attentive enjoyment. 人生 ('life') is different from the other three words. 品味人生 (*pǐnwèi rénshēng*) means "to deeply experience the ups and downs and the diverse emotions of life and enjoy it", which compares life to something that we can chew carefully and ponder deeply. Through the concrete act of savouring, the abstract concept of life transforms into a sensory experience, embodying the primary metaphor LIFE IS FOOD and generating a series of cross-domain mappings, as shown below:

Figure 4. Cross-domain mappings of metaphor LIFE IS FOOD

甜 (*tián*, 'sweet') ⟶ 幸福 (*xìng fú*, 'happiness')

苦 (*kǔ*, 'bitter') ⟶ 磨难 (*mó nàn*, 'hardship')

回味 (*huí wèi*, 'to ponder over') ⟶ 反思 (*fǎn sī*, 'to reflect')

The words to the left of the arrow correspond to the source domain, whereas those to the right denote the target domain. If the taste of life is sweet, then we can infer that it is a taste of happiness. If the taste of life is bitter, then we can sense the suffering of life, which is an abstract concept. In the last mapping, the source concept huíwèi is a verb, meaning 'to ponder over'. Therefore, *pǐnwèi rénshēng* ('to savour life') could be interpreted as 'to reflect one's life experience'. Chinese frequently uses taste terms to describe life (e.g., 酸甜苦辣 'sour, sweet, bitter, spicy' and 饱尝艰辛 'have fully tasted the bitterness of hardships'), demonstrating the pervasiveness of the LIFE IS FOOD metaphor. Besides, EXPERIENCING IS TASTING metaphor is a secondary metaphor and has been discussed in the Section 4.2.1.

For 语言 ('language'), 时尚 ('fashion') and 经典 ('classics'), they are closely related to art, so aesthetic domains are mapped onto gustatory perception. The metaphor AESTHETICS IS TASTE is applied. The sense of taste as 'to enjoy' (according to OED) has been marked archaic or dialect, but in the Chinese context, we always associate aesthetics with physical perception, and our use of the "品味

+ N" construction for showing appreciation of beauty is quite unique. More comparison is needed to be done to display the cross-linguistic differences.

5. Discussion

The above corpus analysis demonstrates the distinguishing usage characteristics of the three Chinese perception verbs. 尝 is a neutral verb that can be used figuratively to convey positive, negative, or neutral meanings, whereas 品尝 and 品味 are more positive, always followed by gourmet, wine, or other pleasant substances in the world. 品尝 is not used figuratively (see Table 4), but 品味 can be followed by abstract concepts. These taste verbs (e.g., '尝', '品味') are systematically mapped onto the domain of subjective experience, reflecting a cognitive link between physical sensation and emotional perception. For example, the metaphor EXPERIENCING SOMETHING IS TASTING is widely used in the 尝+N constructions, such as cháng shèng jì ('to taste victory'), cháng bàijì ('to taste defeat'), cháng kǔtou ('to taste bitterness'). In contrast, the 品味+N constructions consistently embody the aesthetic experience because *rénshēng* ('life'), *shīgē* ('poetry'), and *jīngdiǎn* ('classics') are metaphorically conceptualised as food to be savoured. To my knowledge, English does not typically combine 'taste' with abstract concepts like language or art in the same way Chinese does with 品味.

An overview of the top 20 品尝+N constructions in Table 4 shows that the central verb stresses sensory experience. However, when examining the first 200 rows of 品尝+N collocation, we observe that the central verb can take negatively connoted nouns as its objects, such as 苦涩 (*kǔsè*, 'bitterness'), 失败 (*shībài*, 'failure'), 苦果 (*kǔguǒ*, 'bitter pill'). As the semantic polarity of 品尝 is positive, when using 品尝苦涩 ('to taste bitterness', 159 tokens), 品尝失败 ('to taste failure', 371 tokens), 品尝苦果 ('to taste bitter pill', 102 tokens), one is actually meliorating his/her unpleasant experience, making the experience sound not so bad. In this case, the expressions are used figuratively and euphemistically. Let's take the following sentences as instances

(1) 每个人的一生都注定要跋涉坎坷，品尝苦涩与无奈. (The Chinese zhTenTen17 Simplified)

Měi-gè-rén de yī-shēng dōu zhùdìng
Every-CLF-person GEN whole.life all-ADV be.bound.to-V
yào bá-shè-kǎn-kě, pǐn-cháng kǔ-sè
inevitably-AUX go.through.struggles, taste bitterness
yǔ wú-nài.

and helplessness
'Every person is bound to go through struggles in life, experiencing bitterness and helplessness.'

(2) 每一个人在社会中的角色会不断变换，事业有成的人也会品尝失败.
(From *Xiūliàn Mèilì Nǚrén* 2006, CCL[3])
Měi-yī-gè-rén zài shèhuì zhōng
Every-one-CLF-person in-PREP society inside
de juésè huì búduàn biànhuàn, shìyè yǒuchéng
GEN role will constantly change, career have.achievement
de rén yě huì pǐncháng shībài.
GEN person also will taste failure
'Everyone's role in society changes constantly; even successful people will taste failure.'

Sentence (1) conveys the philosophy of life. Tasting the bitter flavour of life is an inevitable part of one's life journey. In sentence (2), the Chinese construction *pǐncháng shībài* ('taste failure') instantiates a conventional conceptual metaphor in Mandarin: EXPERIENCING IS TASTING. This systematic mapping projects the physical domain of gustatory perception onto the abstract domain of subjective experience, reflecting embodied cognition. The verb *pǐn cháng* ('to savour/taste') typically selects food as its object, but its collocation with shībài ('failure') forces a metaphorical interpretation, where failure is conceptualised as a bitter substance to be actively ingested, evaluated, and internalised (or digested). This aligns with broader Chinese cultural models that frame adversity as medicinal (e.g., 良药苦口, 'good medicine tastes bitter'), implying that suffering yields growth.

Unlike English, which typically restricts taste verbs to positive or neutral experiences (e.g., 'savor victory'), Mandarin exhibits greater lexical flexibility in applying sensory metaphors to negative domains, enabling constructions like 'taste failure' through extended metaphorical mapping. The construction conceptualises the experiencer as an epistemic agent: *pǐncháng* failure entails active cognitive engagement with the experience, requiring analytical evaluation of its components — a process metaphorically analogous to a sommelier's systematic wine appraisal. This contrasts with neutral English equivalents like 'experience failure' or the passive 'suffer defeat'. The metaphor thus serves a reframing function, transforming failure from a static event into a processible object, consistent with Chinese epistemic preferences for dynamic, process-oriented cognition. Typologically, this highlights how Mandarin extends sensory

[3] CCL refers to a big online corpus built by Centre for Chinese Linguistics in Peking University.

verbs to abstract meanings more productively than Indo-European languages. Table 2 and Figure 3 exhibit the salience of objects with negative semantic polarity, which account for 49.1% of all the figurative constructions of 尝 (*cháng*). The collocation patterns of 尝 (*cháng*) with objects relating to bitterness demonstrate the deep and enduring suffering of the Chinese people, which echos the conclusion of Liao and Lin (2017), who find that the Chinese nation values bitterness based on the data on synaesthetic metaphor degree.

6. Conclusion

The present study has probed into the collocation of the three Chinese perception verbs 尝 (*cháng*), 品尝 (*pǐn cháng*), 品味 (*pǐn wèi*) with their object (V+N construction) in order to explore the three verbs' distinguishing usage and characteristics. The three words are found to be different in formality, semantic polarity, and meaning extension based on the corpus study. Meanwhile, their figurative usage is quite distinctive in Chinese and has been demonstrated through the semantic analysis.

The above analysis gives us a picture of how the TASTE domain structures abstract concepts like experience, value, knowledge, and aesthetics in Chinese language and culture. Lakoff and Johnson (1980) argue that metaphors are not just linguistic expressions but fundamental cognitive tools that shape how we understand abstract concepts. Kövecses (2005) emphasises that metaphors are culturally embedded, meaning that different cultures may develop distinct mappings based on their unique experiences and values. In Chinese, *taste* (味道 *wèidào*) is deeply culturally salient due to the importance of culinary traditions, medicine (e.g., bitter herbs), and philosophical concepts (e.g., harmony in flavours). This makes TASTE a rich source domain for conceptualising abstract ideas. The Chinese expression 尝尽人生百味 (*cháng jìn rénshēng bǎi wèi*, 'to taste all the flavours of life') frames life's journey as a process of savouring diverse flavours, reflecting the Confucian and Daoist idea that life is a process of balancing contrasting elements.

Although the present study aimed to elaborate on the V+N constructions of the three perception verbs in Mandarin Chinese through corpus analysis, the limitations cannot be overlooked. On the one hand, a comparative study of the perception verb 'taste' and its synonyms across different languages is expected to reveal the cross-linguistic differences. On the other hand, the two-syllable words in Chinese with 尝 as the central word are not limited to 品尝. According to HYDCD, there are 60 such combination words in Chinese, the construction of which is incredibly complex and worth examining.

Abbreviations

ADV adverb
AUX auxiliary
CLF classifier
GEN genitive
V verb
PREP preposition

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