

SEMANTIC CATEGORIZATION OF Thai " *kʰr̥aŋ r̥ean* " (HOUSEHOLD BELONGINGS):

A PROTOTYPE AND ETHNOLINGUISTIC APPROACH

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Abstract

This research article aimed to: 1) study the meaning of */kʰr̥aŋ r̥ean/* within the framework of prototype theory, 2) compare the semantic boundaries and usage of */kʰr̥aŋ r̥ean/* in Thai and "furniture" in English as perceived by Thai speakers, and 3) analyze the semantic categorization of */kʰr̥aŋ r̥ean/* from an ethnolinguistic perspective. This study employed a descriptive approach. Data were collected from 300 native Thai speakers (150 males and 150 females, aged 20-60 years, from all four regions of Thailand) through a questionnaire. The respondents were asked to name 20 items they considered as */kʰr̥aŋ r̥ean/* and rank each item based on how representative it was of the category.

The results showed that the highest-ranked items were bed, chair, and table, which closely aligned with the meaning of "furniture" in English. However, respondents also identified other items such as plates, refrigerators, televisions, spoons, and bowl as */kʰr̥aŋ r̥ean/*. The findings revealed that */kʰr̥aŋ r̥ean/* has a broader meaning than "furniture". While "furniture" referred to movable articles used to make a room, house, or office suitable for occupancy, "*/kʰr̥aŋ r̥ean/*" encompassed not only furniture but also household belongings, kitchenware, appliances, and decorative items. These findings supported prototype theory, which posits that semantic categories had clear core members and fuzzy boundaries. Bed, chair, and table served as core members, while other items exhibited varying degrees of membership in the category. The study also demonstrated the role of language and culture in every categorization practices. Thai speakers employed a holistic approach to categorize household items, whereas English speakers categorize them more discretely and specifically.

Keywords: Prototype Theory, Household Belongings, Furniture, Ethnolinguistics, Semantic Categorization

Introduction

Classification is fundamental to human reasoning. Whenever we see or think about something as a kind of thing (e.g., a plant, an animal, a number), we are engaged in categorization. Every time we use language as a means for communication, we make use of linguistic categories. The relationship between language, culture, and cognition has long been a focus in linguistic anthropology and ethnolinguistics (Lucy, 1992; Palmer, 1996). Different languages may categorize the world in different ways, reflecting their speakers' unique cultural perspectives and experiences. While many everyday objects have clear boundaries, some categories exhibit ambiguity, particularly those involving household belongings.

Prototype theory, developed by Eleanor Rosch in the 1970s, proposes that semantic categories are not based on strict necessary and sufficient conditions, but on central, prototypical members (Rosch, 1975). Some members of a category are better examples of that category than others. For example, most people consider a sparrow the best example or prototype of the bird category because it has all the 4 features. Peripheral category members can be accommodated, because it is not necessary for any member to possess all the features of the prototype. Thus, it seems that a vulture can be classified into the bird category because it has almost all features of a bird: [+feathers], [+beaks], and [+fly]. A duck also can still be classified as a bird, since it possesses bird-like features: [+beaks] and [+feathers]. A bat has only one feature: [+fly]. In other words, the sparrow is the best example of a bird. The vulture and duck are the second and the third best respectively whereas bat is the worst example. This graded structure is characteristic of natural semantic categories and is particularly relevant for understanding fuzzy categories like /kʰrûan rûan/.

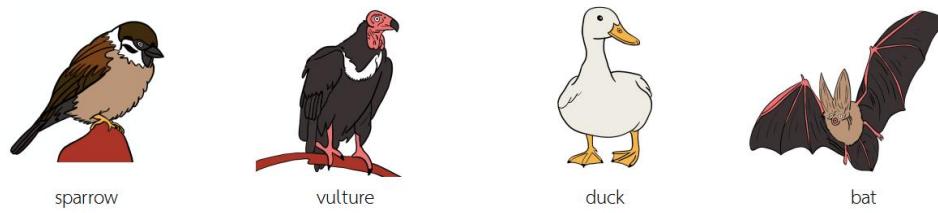


Figure 1 Creatures classified into the bird category

The phenomenon of fuzzy word categories has been investigated across languages using prototype theory. Coleman & Kay (1981) and Lakoff (1987) demonstrated that many everyday concepts, including household terms, have prototype effects rather than clear-cut categorical boundaries. This framework has been applied to Thai semantic categories. Charunrochana (2006) found that the Thai word /nint̪a:/ (gossip) exhibits a prototype structure, with certain types of talk considered more representatives than others. Similarly, Charunrochana (2009) found that the Thai word /ko: hòk/ (lie) and found that Thai speakers consider certain situations are more typical of lying based on key semantic features. One such example of a fuzzy word in the Thai language is the word /kʰrûan rûan/. Thai people do not have a clear concept of /kʰrûan rûan/, that is they cannot clearly identify which entity is a /kʰrûan rûan/ and what the exact features of /kʰrûan rûan/

are. The meaning of /kʰrâan r̥uan/ in dictionaries is not clearly defined, but it refers to something else in the English concept instead, as shown in figures 2 and 3 below.

เครื่องเรือน furniture [คำนามที่นับไม่ได้]

Figure 2 The definition of /kʰrâan r̥uan/ in English (lamworamate, 2000)



Figure 3 The definition of “furniture” in English “Merriam-Webster”

Source: Merriam-Webster. (n.d.) Furniture. In Merriam-Webster.com dictionary. Retrieved from <http://www.merriam-webster.com/dictionary/furniture>

As shown in Figure 2 and 3, most Thai-English dictionaries translate /kʰrâan r̥uan/ as “furniture” (lamworamate, 2000), and standard English dictionaries define “furniture” as “movable articles used to make a room ready for use” (Merriam-Webster, n.d.). This straightforward translation suggests that /kʰrâan r̥uan/ and “furniture” are synonyms. However, some dictionaries provide broader definitions of /kʰrâan r̥uan/, such as “household articles” or “(home) furnishing” (Domnern & Sathienpong, 2006). Most notably, Royal Society of Thailand (1999) defines /kʰrâan r̥uan/ as both “kitchen utensils or household items.” This inconsistency suggests that the semantic boundaries of /kʰrâan r̥uan/ are not clearly established. In addition, dictionary definitions have limitations in reflecting actual language use, as they aim to provide concise definitions while speakers' mental representations tend to be more complex and flexible. Therefore, it is necessary to investigate how Thai speakers categorize /kʰrâan r̥uan/ through empirical data.

Research Objectives

1. To study the meaning of /kʰrâan r̥uan/ within the framework of the prototype theory.
2. To compare the semantic boundaries and usage of /kʰrâan r̥uan/ in Thai and “furniture” in English as perceived by Thai speakers.
3. To analyze the semantic categorization of /kʰrâan r̥uan/ from an ethnolinguistic perspective.

Methodology

In order to achieve the objectives of the study, the researcher divided the methodology into 4 parts: participants, research instrument, data collection and data analysis.

1. Participants

This study employed quota sampling, a non-probability sampling method for ensuring representation across key demographic characteristics of Thai speakers. This method was chosen because the study aimed to investigate general categorization patterns among Thai speakers instead of testing hypotheses about differences between demographic subgroups. The sample comprised 300 native Thai speakers: 150 males (50%) and 150 females (50%), distributed across four age groups [20-29 years: n=90 (30%); 30-39 years: n=85 (28.3%); 40-49 years: n=75 (25%); 50-60 years: n=50 (16.7%)] and four regions [Central: n=90 (30%); Northern: n=75 (25%); Northeastern: n=80 (26.7%); Southern: n=55 (18.3%)].

2. Research Instrument

Data were collected using a structured questionnaire consisting of a single open-ended task. Participants were asked to select and rank their top 20 /*kʰr̥āŋ r̥uan*/ items as stated in the instruction: “Please name your top 20 items of /*kʰr̥āŋ r̥uan*/. This questionnaire is not to test how well you know about /*kʰr̥āŋ r̥uan*/. So please do not look up the meaning of /*kʰr̥āŋ r̥uan*/ in a dictionary.” The ranking system provided 20 points for rank 1 and 1 point for rank 20.

Due to its single open-ended question with no correct answers, the questionnaire did not undergo a formal validation procedure. Face validity refers to researchers' subjective assessments of whether items appear to be relevant, reasonable, unambiguous and clear (Taherdoost, 2016).” This approach aligned with Rosch’s (1975) prototype research, which employed a similar rating-based method without formal psychometric validation.

3. Data Collection

Data were gathered using Google Forms from March to May 2025. The online format allowed effective data collection across all four regions of Thailand while preserving the anonymity of participants.

4. Data Analysis

After collecting the data, the researchers identified the responses to get the top 20 items named as members of /*kʰr̥āŋ r̥uan*/. By summing the ranks of each named item from all respondents, the researcher obtained the total scores for the items. Then the researcher ranked the items according to their total scores to get the list of the top 20. This rank can be seen as a measure for goodness or typicality of /*kʰr̥āŋ r̥uan*/. The first rank, the best example in the perception of the respondents, is valued at 20 points, the second rank 19 points; the third rank 18 points, and so on. The last rank is 1 point.

In addition, the analysis used descriptive statistics instead of inferential statistics for three main reasons. First, quota sampling (non-probability sampling) does not meet the assumptions required for inferential tests. Second, the objectives were exploratory, focusing on describing

categorization patterns rather than testing hypotheses. Lastly, prototype theory normally employs descriptive methodology (Rosch, 1975). This method reveals general trends and similarities among Thai speakers rather than testing formal hypotheses about group differences.

Results

According to the objectives of this research, the researchers divided the results into 3 parts: 1) the prototype of /kʰr̥əŋ r̥əŋ/, 2) the meanings of /kʰr̥əŋ r̥əŋ/ and furniture, and 3) demographic variations in categorization patterns.

1. Prototype of /kʰr̥əŋ r̥əŋ/

From the data analysis, the top 20 items of /kʰr̥əŋ r̥əŋ/ are presented in Table 1 below. The table shows both the Thai phonetic transcription, Thai script, and English translation for each item, along with its ranking based on total scores from all 300 participants.

Table 1 Top 20 Items of /kʰr̥əŋ r̥əŋ/ Ranked by Prototype Score

Rank	Phonetic	Thai	English	Total Score
1	/tian/	เตียง	bed	3,617
2	/kâw ʔi:/	เก้าอี้	chair	3,467
3	/tóʔ/	โต๊ะ	table	2,660
4	/so: fa:/	โซฟา	sofa	2,387
5	/tû: sâ:a pʰâ:/	ตู้เสื้อผ้า	wardrobe	2,383
6	/ca:n/	จาน	plate	1,516
7	/tû:/	ตู้	cabinet	1,453
8	/tóʔ kin kʰâ:w/	โต๊ะกินข้าว	dining table	1,441
9	/tû: jen/	ตู้เย็น	refrigerator	1,350
10	/tʰi: wi:/	ทีวี	television	1,319
11	/kʰo:m faj/	โคมไฟ	lamp	1,210
12	/tóʔ kʰr̥əŋ pâ:ŋ/	โต๊ะเครื่องแป้ง	dresser	1,206
13	/cʰɔ:n/	ช้อน	spoon	1,149
14	/cʰa:m/	ชาม	bowl	1,132
15	/krâ? tʰâʔ/	กระทะ	frying pan	1,060
16	/tû: kâp kʰâ:w/	ตู้กับข้าว	food cabinet	1,011
17	/pʰát lom/	พัดลม	electric fan	930
18	/mɔ:/	หม้อ	pot	896
19	/cʰán/	ชั้น	shelf	888
20	/mɔ:n/	หมอน	pillow	880

Note: Prototype scores were calculated by summing participants' ranking (N=300). The first rank received 20 points, decreasing to 1 point for the last rank. Items ranked outside the top 20 were not included in this table.

The results show a clear prototype structure for the category /*kʰr̥āŋ r̥uān*/ among Thai speakers. The top three items in the category—bed (เตียง), chair (เก้าอี้), and table (โต๊ะ)—received the highest scores from almost all participants. These items are very close to the English category "furniture," implying some cross-linguistic similarity at the core of these semantic categories.

On the other hand, as we move down the ranking, we come across items that might not normally be categorized as "furniture" in the English language. Among the items that are considered to be members of the /*kʰr̥āŋ r̥uān*/ category by Thai speakers, there are a few that are considered to be more typical than others. These include the plate (จาน, rank 6), the refrigerator (ตู้เย็น, rank 9), the television (ทีวี, rank 10), the spoon (ช้อน, rank 13), the bowl (ชาม, rank 14), the frying pan (กระทะ, rank 15), and the rice cooker (หม้อหุงข้าว, rank 23). These items are classified as belonging to categories that the English language would refer to as "kitchenware," "appliances," "electronics," or "household items" rather than "furniture." This finding shows that the Thai word /*kʰr̥āŋ r̥uān*/ means more than just "furniture" in English. The category seems to include different kinds of household items that have practical uses in everyday life, not just the things that can be moved around to furnish rooms (the English definition of "furniture"). This difference in meaning shows how people in this culture think about and organize their domestic material culture.

2. The Meanings of /*kʰr̥āŋ r̥uān*/ and Furniture

As stated in the introduction of this research, /*kʰr̥āŋ r̥uān*/ is often treated as semantically equivalent to furniture in bilingual dictionaries. Nevertheless, the empirical findings of this study demonstrate that the two words are not completely synonymous but only partially synonymous. Although the two words share some prototypical members, they have different semantic boundaries and different internal structures.

Table 2 Prototype of "furniture" in English (Rosch, 1975)

Rank no.	Furniture	Rank no.	Furniture
1.5	Chair	11	Chest of drawers
1.5	Sofa	12	Desk
3.5	Couch	13	Bed
3.5	Table	14	Bureau
5	Easy chair	15.5	Davenport
6.5	Dresser	15.5	End table
6.5	Rocking chair	17	Divan
8	Coffee table	18	Night table
9	Rocker	19	Chest
10	Love seat	20	Cedar chest

To illustrate this difference, we can compare the prototype structure of /*kʰrâan r̥uan*/ found in this study with Rosch's (1975) research on the prototype of "furniture" in English. Rosch's findings showed that English speakers' prototype for furniture included items such as chair, sofa, couch, table, easy chair, dresser, and rocking chair as the most typical members. Importantly, Rosch's furniture category did not include kitchen items, appliances, or decorative household objects—these were considered separate categories in English speakers' mental lexicon.

The Merriam-Webster dictionary defines "furniture" as "movable articles used in readying an area (as a room or patio) for occupancy or use." This definition emphasizes the functional purpose of furniture as items specifically chosen to equip a space for human use, and the movable quality that distinguishes furniture from fixed architectural features. Under this definition, items like beds, chairs, tables, sofas, and cabinets clearly qualify as furniture, but kitchen utensils, appliances, electronics, and decorative accessories would not.

In contrast, the Thai category /*kʰrâan r̥uan*/ appears to be organized around a broader principle: items that are part of household life and domestic activities. The category is not limited to movable articles for furnishing a room, but extends to various functional objects used in daily household tasks—cooking, eating, food storage, entertainment, and decoration. This broader conceptualization reflects a holistic view of household belongings as an integrated system rather than separate categories of furniture, kitchenware, appliances, etc.

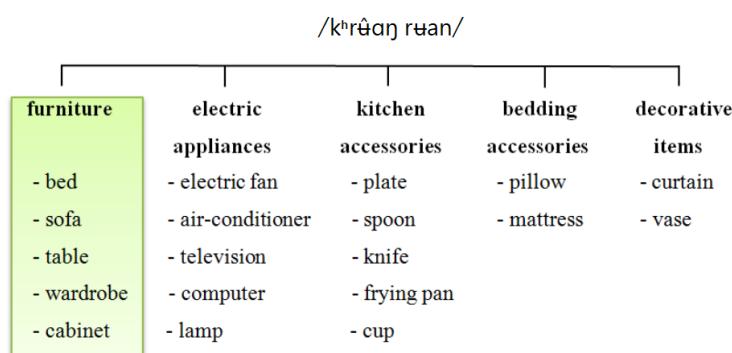


Figure 4 Semantic Relationship Between /*kʰrâan r̥uan*/ and Related Categories

Figure 4 presents a semantic map illustrating the hierarchical relationship between /*kʰrâan r̥uan*/ and its subcategories. This semantic hierarchy /*kʰrâan r̥uan*/ demonstrates that /*kʰrâan r̥uan*/ functions as a superordinate term that encompasses multiple subordinate categories: furniture, electric appliances, kitchen accessories, bedding accessories, and decorative items. In this hierarchical structure, "furniture" (as understood in English) is only one subcategory within the broader /*kʰrâan r̥uan*/ category.

Therefore, the word /*kʰrâan r̥uan*/ in Thai and "furniture" in English are not completely synonymous. The English "furniture" has a narrower, more specific meaning referring primarily to movable items that furnish rooms. The Thai /*kʰrâan r̥uan*/ has a broader, more inclusive

meaning that encompasses furniture as well as various other household articles. This finding has important implications for translation, language teaching, and cross-cultural understanding of material culture concepts.

3. Semantic Categorization of /kʰr̥āŋ r̥uāŋ/ from an Ethnolinguistic Perspective

Analysis of demographic variables revealed interesting patterns in how different groups of Thai speakers categorize /kʰr̥āŋ r̥uāŋ/. The core prototype items (bed, chair, and table) were ranked highly by all demographic groups. However, the peripheral items in the category showed some variation.

Gender: The categorization patterns between male and female participants were generally similar. Both groups tended to rank bed, chair, and table highly as core members of the /kʰr̥āŋ r̥uāŋ/ category (male: 71.6%, 96.3%, 48.1%; female: 65.3%, 70.3%, 53.9% respectively). Both groups constantly selected the same items as central to the category.

Age: The data showed some differences based on age. Electronic devices like televisions and computers were more frequently categorized as /kʰr̥āŋ r̥uāŋ/ by younger participants aged 20–29 (47.2%) compared to older participants aged 50-60 (33.33%). Traditional household items like food cabinets showed similar patterns across age groups (younger: 26.8%, older: 33.3%), though older participants selected them slightly more. This implies that the boundaries of /kʰr̥āŋ r̥uāŋ/ may shift across generations, possibly reflecting changes in domestic technology and lifestyle.

Region: Core items (bed, chair, table) were consistently ranked across the regions, but peripheral items varied. Sofa was mentioned more frequently by Northern participants (72.2%) than Northeastern participants (20%). Southern participants selected food cabinets (81.8%) more than other regions (16.7% - 44.7%). Central participants mentioned dressing tables twice as often (63.2%) as other regions (10%-36.4%). These differences likely reflect regional variations in housing and domestic practices.

Discussion

This research examined the categorization of /kʰr̥āŋ r̥uāŋ/ using prototype theory and ethnolinguistic analysis, revealing how language, culture, and cognition influence semantic boundaries. The findings support Rosch's (1975) framework that categories have clear prototypical centers (bed, chair, table) and fuzzy boundaries, but they also show that these boundaries are culturally negotiated rather than cognitively universal.

The word /kʰr̥āŋ r̥uāŋ/ has a broader semantic scope than English "furniture" and reflects distinctively Thai cultural concept. While English divides household items into separate categories (furniture, kitchenware, and appliances), Thai groups them into a single superordinate category based on shared household functions. This holistic categorization is consistent with Formoso's (1990) observation that Thai domestic space is conceptualized as integrated rather than functionally divided, and it supports linguistic relativity (Lucy, 1992;

Palmer, 1996) by demonstrating how language reflects and shapes cultural worldviews. Additionally, this cultural framework interacts with demographic variables to cause systematic variation in category boundaries.

Differences based on age show how cultural categories change over time. Younger speakers include electronics as important parts of /kʰr̥əan r̥əan/, which shows how technology is being used in everyday life (De Deyne et al., 2016). On the other hand, the use of loanwords from English like /soː faː/, and Chinese like /tōʔ/ (table) and /kâw ʔiː/ (chair) (Gyarunsut, 1983) shows how globalization changes semantic categories (Hollmann, 2012). Instead of making English-style subcategories, younger Thai speakers add new things to the overall category of /kʰr̥əan r̥əan/.

Regional variations show how universal prototype structure and culture-specific boundaries interact. The core prototype (bed, chair, table) is consistent across regions, confirming cognitive universals, but peripheral boundaries vary depending on material culture. Northern urban speakers (72.2%) have more sofas than Northeastern rural speakers (20%), reflecting lifestyle differences. Southern speakers are more likely to mention food cabinets (81.8%) for climatic storage, while Central speakers mention dressing tables (63.3%) for Western furniture influence. These patterns demonstrate that demographic variables (age, region) mediate categorization through culture. The holistic Thai framework crosses demographics, but what is included depends on local material realities and generational experiences. Charunrochana (2009) found that religious devoutness affects lying categorization, showing that cultural values shape semantic boundaries across domains from abstract social concepts to concrete material objects.

Conclusion

This study contributes theoretically and practically. It theoretically extends prototype theory by showing how cultural conceptualization shapes good exemplars and boundaries. /kʰr̥əan r̥əan/ reflects Thai cultural knowledge of integrated domestic space (Palmer, 1996) and links language structure to cultural practices (Lucy, 1992). Semantic categorization is cognitive and cultural due to demographic variables influencing the interaction between universal prototype structure and culture-specific boundaries.

These findings have practical implications for translation and language teaching, since /kʰr̥əan r̥əan/ and "furniture" are not synonymous, it is crucial to employ context-sensitive translation methods and pay careful attention to semantic differences when teaching. The study additionally brings empirical evidence to discussions about semantic universals and cross-linguistic variation (Malt et al., 1999), demonstrating how languages categorize material culture differently while sharing a prototype structure.

Despite these contributions, limits offer further directions. Quota sampling reduces generalizability, and focusing on one area requires studying related categories and their

relationships. Future research might compare Southeast Asian household categories, trace category evolution through urbanization, test semantic variations on non-linguistic cognition, and examine bilingual category management. This study shows that /kʰrûan rûan/ has a prototype structure with fuzzy boundaries across several household domains, representing Thai cultural views of integrated domestic life. It shows semantic categorization as a universal cognitive process and culture-specific meaning-making practice by integrating prototype theory with ethnolinguistic and demographic data.

Research Contribution

This study contributes to Prototype Theory, cross-linguistic research and applied linguistics. Theoretically, it verifies prototype theory by showing /kʰrûan rûan/ has constant core but culturally variable boundaries. Cross-linguistically, it illustrates that /kʰrûan rûan/ is broader than “furniture”-- encompassing furniture, kitchenware, electric appliances, and decorative items. In addition, it reflects holistic Thai household categorization, as compared to English’s narrower boundaries. This finding supports Barbara et al. (1999), which stated that language categorizes household artifacts differently based on cultural conceptualization. Practically, it demonstrates literal translation is insufficient; translators need context-appropriate terms, and language teachers should explicitly teach /kʰrûan rûan/’s broader scope to avoid errors and develop accurate cross-cultural understanding.

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