

# Three Types of Episodic Word-Congruency in Words/Grammar/Episodic Model of Language: Word Character Division, Frequent Binding and Inter-Sentential Congruency

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## Abstract

**Introduction:** From division of declarative remote memory, procedural memory and declarative immediate/recent episodic memory, it was proposed by Cai the words/grammar/episodic(semantic/syntactic/episodic) model of language, able to determine the congruent meaning of polymeaning word in sentence/paragraph. **Purpose:** From this model, it is attempted to review the neglected episodic word-congruency. **Methods:** It was searched the papers from Pubmed and Researchgate, and then classified and summarized. **Results and Discussions:** (a) It is supported the episodic word-congruency in sentence by brain N400/P600 reaction as recognition or correction against violation of word/episodic congruency. (b) It is further classified the episodic word-congruency in sentence/paragraph into three types, as (i) stepwise congruent comprehension of words in sentence as gamma increment; (ii) frequent word binding to form phrases, idioms, etc; (iii) inter-sentential episodic congruency in paragraph/text. (c) Especially, for stepwise congruent comprehension of words in sentence, based on behaviorally alive human/animal and naturally changing matter, it is classified the pronouns/nouns of sentential subject into the zoological/organizational/range/relation/logic/physical/categorical characters, and the following sentential verbs into affective/behavioral/range/relation/logic/characteristic/changing characters, while the adjectives/adverbs into affective/behavioral/range/relation/logic/characteristic/changing/spatial/temporal characters. It is required the congruency of these word characters to fit the congruent meaning of polymeaning word in sentence. (d) For inter-sentential episodic congruency, it is divided into two subtypes, as the meaning of polymeaning-word being congruent with the thematic field of its paragraph, and the pronoun transferring the more concrete range/relation/logic word character of corresponding noun in different sentence. **Conclusions:** It is the episodic word-congruency to determine the congruent meaning of polymeaning word in sentence/paragraph.

**Keywords:** Polymeaning word; Linguistic N400/P600; Word character division; Frequent word binding; Inter-sentential episodic congruency.

## 1. Introduction

It is useful to divide or classify the complex linguistic components of language to reveal the general principles and mechanisms by which the human language is organized, understood and expressed. It is common knowledge that the word/grammar division of language is the most common classification of linguistic functions.

Recently, it has been corresponded the division or classification of linguistic components to the underlying neuropsychological processes, such as the declarative/procedural memories to the word/grammar division (Ardila, 2012; Ullman, 2001,2004; Ullman et al., 1997), while the declarative remote memory, procedural memory and declarative immediate/recent episodic memory to the words/grammar/episodic components of language respectively (Cai, 2015,2017a,2023). In this way, it is easy to assay the linguistic components by neuropsychological methods, while improve the division or classification of linguistic components scientifically.

## 2. Brief Review on Contemporary Theories for Division of Language

### 2.1. The Declarative/Procedural Model for Word/Grammar Division of Language

All humans learn their language after birth, while the human language is stored as memories. Memories are diverse and various, and can be divided into the declarative memory storing facts, knowledges or episodes, and the procedural memory encoding skills or habits (Cai, 1990,2018; Squire, 1987).

Pinker, Ullman and so on proposed a declarative/procedural model of language, with the declarative memories and procedural rules corresponding to the common word/grammar components of language respectively (Ardila, 2012; Ullman, 2001,2004; Ullman et al., 1997).

Such declarative/procedural model of language makes it clear that the word and grammar correspond to two different neuropsychological processes, indicating the separate processing of word and grammar of language.

## 2.2. The Words/Grammar/Episodic Model for Division of Native Language

The word/grammar division or declarative/procedural model of language neglects how to associate the word meanings to comprehend the sentential meaning (Cai, 2015,2017a,2023), which is different from grammar. Recently, Cai improved the word/grammar division or declarative/procedural model of language, and suggested a words/grammar/episodic(or semantic/syntactic/episodic) model of language, supplementing the episodic association of word meanings in sentence as also necessary for the generation and comprehension of sentential meanings (Cai, 2015,2017a,2023).

In analogy to the division of declarative memories and procedural rules in support of the traditional word/grammar division of language (Ardila, 2012; Ullman, 2001,2004; Ullman et al., 1997), Cai likely adopted memory division to support the words/grammar/episodic model of language (Cai, 2015,2023).

Declarative memory can further be divided into (a) short-term memory or immediate memory lasting only for minutes or seconds, (b) long-term recent memory encoded in brain for more than hours or days, and (c) long-term remote memory stored in brain for decades of years. Some reviews (Cai, 1990,2018) and early books (Squire, 1987) demonstrated such division of declarative memory in more details.

With such improvement of memory division, Cai(2023) classified the words/grammar/episodic components of language as corresponding to the declarative remote memory, procedural memory and declarative immediate/recent episodic memory, respectively. Since declarative remote memory corresponds to common words of native language, but not many unstable words of second language, the words/grammar/episodic model fits native language.

Accordingly, the words/grammar/episodic model of language manifests these three linguistic components as belonging to three different kinds of neuropsychological processes, processing three different kinds of memory.

Cai (2023) additionally pointed out that, with episodic association of word meanings, this words/grammar/episodic model of native language was advantageous to determine the congruent meaning of polymeaning word in sentence and paragraph by episodic word-congruency. In this paper, it will further consider this issue.

## 3. The Purposes of This Paper

Now that the words/grammar/episodic model of language is advantageous to determine the congruent meaning of polymeaning word in sentence/paragraph by episodic word-congruency (Cai, 2023), in this article it is necessary to review the relevant neuropsychological/neurophysiological studies as scientific supports.

Besides, further division or classification of episodic word-congruency in sentence can definitely improve understanding the polymeaning word for language comprehension, so that it will also review such division or classification of episodic word-congruency in sentence in this article.

## 4. Methods

### 4.1. Subject

It was aimed to review the relevant neuropsychological/neurophysiological studies as scientific supports to episodic word-congruency, while to further classify the episodic word-congruency into three types.

### 4.2. Search

For this interdisciplinary topic, the integrative review of progressions in related subfields was the best and most convincing method. Meta-analysis fit investigation of a specific topic in a well-studied subfield, but unpractical to review all literatures in all subfields for this paper. Thus, review articles were frequently selected to demonstrate comprehensive progressions of subfields instead. Usually, these comprehensive review articles were consistent with each other in the same subfield, with very few exceptional results or contradictory arguments discussed or explained in section “Results and Discussions”, such as the various explanations of N400/P600 linguistic studies. Besides, the updated words/grammar/episodic model of native language was new, and only few papers were published about it. More importantly, it was certainly necessary to analyze and integrate the collected reviews and important research papers from several fields by classification, comparison and summarization.

Paper search was mainly performed on Pubmed and Researchgate. The words adopted in search were included mainly as but not limited to the followings: (a) Language; (b) declarative memory; (c) procedural memory; (d) remote memory; (e) N400; (f) P600; (g) gamma; and so on. Sometimes, several of these words were simultaneously utilized for search, such as: (a) Language, declarative memory; (b) language, gamma; (c) language, N400; (d) language, P600; and so on.

### 4.3. Inclusion/Exclusion Criteria

Priority was given to select the newest reviews within last 10 years on comprehensive progressions in subfields. If unavailable or insufficient, comprehensive reviews more than 10 years ago were selected. If still unavailable or

insufficient, the important original articles of hypotheses or special experimental results were selected, such as the new but few electrophysiological studies for stepwise comprehension.

#### 4.4. Content Extraction and Thematic Organization

The searched contents, mostly reviews and some original articles of hypotheses or special experiments, on progressions in episodic word-congruency in sentence, were selected, and then discussed, classified in section “Results and Discussions”, and finally summarized in section “Conclusions”.

### 5. Results and Discussions

#### 5.1. The N400/P600 Studies of Language and Episodic Word-Congruency

The electrophysiological event-related potentials of brain have been adopted in linguistic research for several decades, with many models and hypotheses being raised based on these studies. Generally, it is widely suggested that the change in N400 be usually related to the lexical and semantic mistakes while the change in P600 be frequently related to the semantic and syntactic mistakes (Brouwer, et al., 2012; Friederici, 2002,2011; Kuperberg, 2007; Seyednozadi, et al., 2021), as the followings: (a) Brouwer, Fitz and Hoeks (2012) hypothesized that the change in N400 be related to the retrieval of lexical memory, while that of P600 to semantic integration. (b) Earlier, Kuperberg (2007) suggested two competing neural processing streams from the N400/P600 studies: a semantic memory-based mechanism, and a combinatorial mechanism that assigned structure to a sentence primarily on the basis of morphosyntactic rules, but also on the basis of certain semantic-thematic constraints. (c) Friederici (2002,2011) suggested a more complex neural model that the change in N400 be related to the semantic and syntactic relations, while that of P600 to the sentential integration. (d) In the most recent review, Seyednozadi, Pishghadam and Pishghadam (2021) classified N400 as related to the lexical and semantic mistakes while P600 to the semantic mistakes. In all, N400 and P600 altogether can demonstrate that the brain is able to recognize or correct lexical, semantic and syntactic violations in sentence.

The episodic word-congruency in sentence requires the words to match in meanings with others and whole sentence. The lexical, semantic and syntactic mistakes in sentence would violate episodic word-congruency in sentence, and cause N400 and P600 reactions of brain to recognize or correct them. In accordance, the N400 and P600 reactions as recognition and correction against lexical, semantic and syntactic violations would confirm and support the episodic word-congruency in sentence.

#### 5.2. Further Classification of Episodic Word-Congruency

The advantage of the words/grammar/episodic model of native language lies in that, by the component of episodic word-congruency in function, it helps to determine the congruent meaning of polymeaning word in sentence/paragraph (Cai, 2023). As mentioned above, the N400/P600 linguistic studies confirm and support the episodic word-congruency in sentence.

The episodic word-congruency is also diverse and various in manifestation, and can further be divided into three types (Cai, 2017b), as the followings: (a) It was demonstrated that the sentential construction of language was associated with stepwise increase in gamma bands of brain (Fedorenko, et al., 2016; Nelson, et al., 2017), which is herein adopted to indicate one type of episodic word-congruency, as stepwise congruent comprehension of words in sentence. (b) It was also demonstrated that the phrases, idioms or frequent binding words manifested as decrease in gamma bands of brain (Nelson, et al., 2017; Rommers, et al., 2013), which was opposite to increase in gamma bands observed in stepwise congruent comprehension (Fedorenko, et al., 2016; Nelson, et al., 2017). Therefore, the frequent word binding was classified as another type of episodic word-congruency in sentence (Cai, 2017b). (c) If the few words in sentence are not sufficient to provide episodic congruent clues to determine the congruent meaning of polymeaning-word, inter-sentential episodic congruency of words in paragraph/text would be required to determine the meaning of such polymeaning-word (Cai, 2017b).

Therefore, these three types of episodic word-congruency in sentence and paragraph are all useful to determine the congruent meaning of polymeaning-word in sentence and paragraph (Table1).

#### 5.3. Word Character Division for Stepwise Congruent Comprehension

##### 5.3.1. Classification of pronouns and nouns into two categories

In stepwise congruent comprehension of words in sentence, with support by stepwise increase in gamma bands (Fedorenko, et al., 2016; Nelson, et al., 2017), to determine the congruent meaning of polymeaning word, the episodic word-congruency with stepwise following words and sentential episodes can provide some important clues (Cai, 2017b). For English in social usage among people, the pronoun “he” and “she” can think or behavior as a human and sometimes an animal, whereas the word “it” represents the natural matter in most time while it also means an animal sometimes. Obviously, the word “it” has multiple meanings. This is the further classification of words as pronouns in English (Cai, 2017b). These pronouns in sentence fall into different categories in contents, corresponding to social sciences and natural sciences respectively. Accordingly, Cai (2017b) suggested that, corresponding to the pronouns “he”, “she” and “it” representing different categories, many nouns be likewise classified into one category as a behaviorally alive human/animal and another as naturally changing matter, and be possibly represented by the pronouns “he”, “she” and “it”. With such further classification of pronouns or nouns(pronouns/nouns) into two categories, it would restrict the meaning of polymeaning word by episodic word-congruency with others during stepwise congruent comprehension.

### 5.3.2. Word character division for stepwise congruent comprehension

Cai(2017b) pointed out that the pronouns/nouns in category of behaviorally alive human/animal possessed the zoological or organizational(zoological/organizational) characters and could be marked by these characters, while those in category of naturally changing matter possessed the physical or categorical(physical/categorical) characters and could be marked by them also.

The verbs stepwise following the pronouns/nouns of subject in sentence represent the status, behavior or change of the pronouns/nouns of subject. In stepwise congruent comprehension of words in sentence, supported by gamma bands of brain (Fedorenko, et al., 2016; Nelson, et al., 2017), it would require these stepwise following verbs congruent with the pronouns/nouns of subject to represent the status, behavior or change of them, as required by episodic word-congruency (Cai, 2017b). Cai (2017b) further pointed out that, these stepwise following verbs representing the zoological/organizational nouns/pronouns of subject would manifest as characteristic, affective, behavioral or logic(characteristic/affective/behavioral/logic), while the stepwise following verbs representing the physical/categorical nouns/pronouns of subject manifest as characteristic, changing or logic(characteristic/changing/logic). In all, the verbs would possess the characteristic/affective/behavioral/logic or characteristic/changing/logic characters (Cai, 2017b). Besides, it is common knowledge that the verbs in English have also been further classified into Vt, Vi and link Verb.

In addition, it was also classified the adjectives or adverbs(adjectives/adverbs) representing the respective nouns/pronouns or verbs to manifest as characteristic/affective/behavioral/logic/spatial/temporal characters for zoological/social nouns/pronouns/verbs, and characteristic/changing/logic/spatial/temporal characters for physical/natural nouns/pronouns/verbs (Cai, 2017b).

Finally, it is necessary to further supplement range(such as size, extent), relation(such as rank, folk) and logic(such as cause, result) characters to all nouns, nouns, verbs, adjectives and adverbs.

In all, it can be summarized that the nouns/pronouns possess either zoological/organizational/range/relation/logic or physical/categorical/range/relation/logic characters, verbs possess either characteristic/affective/behavioral/range/relation/logic or characteristic/changing/range/relation/logic characters, and adjectives/adverbs possess either characteristic/affective/behavioral/range/relation/logic/spatial/temporal or characteristic/changing/range/relation/logic/spatial/temporal characters (Table2).

### 5.3.3. Former congruent to latter or latter congruent to former

It is important to note that, in stepwise congruent comprehension, there are two kinds of congruency for words in sentence. (a) The latter polymeaning word is congruent to former, such as, in sentence of active voice, the verb of polymeaning word congruent to former subject by word characters belonging to either zoological/organizational or physical/categorical. (b) The former polymeaning word is congruent to latter, such as, in sentence of active voice, the subject of polymeaning word congruent to latter verb by word characters belonging to either zoological/organizational or physical/categorical. In this situation, the subject of polymeaning word is temporarily memorized as short-term memory before the completion of sentence. Accordingly, stepwise congruent comprehension includes congruency of words from either former to latter or latter to former.

## 5.4. Frequent Word Binding

As mentioned above, frequent word binding from phrases, idioms and so on manifested differently in gamma bands from stepwise congruent comprehension (Fedorenko, et al., 2016; Nelson, et al., 2017; Rommers, et al., 2013), and it was thus classified as another type of episodic word-congruency in sentence (Cai, 2017b). The congruent meaning of polymeaning word participates the phrases, idioms and frequent binding words, while the formed phrases, idioms and frequent binding words indicate their special meanings, which also in turn determines the congruent meaning of contained polymeaning word.

## 5.5. Inter-Sentential Episodic Congruency

If the words in sentence are not sufficient to provide episodic congruent information to determine the congruent meaning of polymeaning-word in the simple sentence, it is suggested to use the inter-sentential episodic congruency of polymeaning-word in the paragraph/text to help determine the congruent meaning of such polymeaning-word.

There are two subtypes of inter-sentential congruency of polymeaning-word. One is that the meaning of polymeaning-word must be congruent with the thematic field of its paragraph, such as physics, biology in natural sciences, management, economy in social sciences, and so on (Cai, 2017b). Another is that the pronoun, representing its noun more concrete in range/relation/logic word character, must transfer the range/relation/logic word character of the corresponding noun into the pronoun in sentence different from that containing the noun in paragraph/text. Such more concrete range/relation/logic word character of pronoun from its corresponding noun can provide more clues to determine the congruent meaning of polymeaning-word in sentence where the pronoun is located. Similar transfer also applies to the behavioral noun representing the behavioral verb.

## 6. Limitation of the Study

It is noted that the classification of words into characters should also be applied to prepositions, articles, conjunctions and so on. It can be preformed in the same way as that for adjectives and adverbs.

This paper can also consider more on the application of words/grammar/episodic model of language to natural language in machine.

## 7. Conclusions

In this article, based on the words/grammar/episodic(or semantic/syntactic/episodic) model of native language, it is reviewed and classified the episodic word-congruency in sentence, useful to determine the congruent meaning of polymeaning-word in sentence and paragraph. The episodic word-congruency in sentence is supported by brain N400/P600 reaction as recognition or correction against violation of word/episodic congruency. The episodic word-congruency in sentence can further be classified into three types, as (a) stepwise congruent comprehension of words in sentence supported by gamma increment; (b) frequent word binding to form phrases, idioms, and so on; (c) inter-sentential congruency for meaning of polymeaning-word in paragraph/text. With regard to stepwise congruent comprehension of words in sentence, it is classified the meanings of words and phrases into the categories of behaviorally alive human/animal and naturally changing matter, and further classified the nouns/pronouns into the zoological/organizational/range/relation/logic/physical/categorical characters, while classified the stepwise following verbs into affective/behavioral/range/relation/logic/characteristic/changing characters, the adjectives/adverbs into affective/behavioral/range/relation/logic/characteristic/changing/spatial/temporal characters, so as to realize stepwise comprehension by congruency of word characters in sentence.

With regard to frequent word binding to form phrases, idioms and so on, the meaning of polymeaning word participating the phrases, idioms and frequent binding words is determined as congruent.

With regard to inter-sentential congruency in paragraph/text, it can be divided into two subtypes. One is that the meaning of polymeaning-word must be congruent with the thematic field of its paragraph, such as physics, biology, management, economy, and so on. Another is that the pronoun representing its noun in paragraph/text must transfer the more concrete range/relation/logic word character of the noun into the pronoun in other sentences.

In all, the episodic word-congruency, as word character division, frequent binding and inter-sentential congruency, determines the congruent meaning of polymeaning word in sentence/paragraph.

## Competing Interests

The author declares no conflict of interest for this work.

## Author's Contributions

The sole author responsible for all process of the paper.

## References

- Ardila, A. (2012). Interaction between lexical and grammatical language systems in the brain. *Physics of Life Reviews*, 9(2): 198-214. <https://doi.org/10.1016/j.plrev.2012.05.001>
- Brouwer, H., Fitz, H., and Hoeks, J. (2012). Getting real about semantic illusions: rethinking the functional role of the P600 in language comprehension. *Brain Research*, 1446: 127-143. <https://doi.org/10.1016/j.brainres.2012.01.055>
- Cai, Z.-J. (1990). The neural mechanism of declarative memory consolidation and retrieval: A hypothesis. *Neuroscience & Biobehavioral Reviews*, 14(3): 295-304. [https://doi.org/10.1016/S0149-7634\(05\)80039-9](https://doi.org/10.1016/S0149-7634(05)80039-9)
- Cai, Z.-J. (2015). Semantic memory association, procedural grammar syntax and episodic modality coordination as three interactive neural processes organizing language: A model. *Open Access Library Journal*, 2: e1718. <https://doi.org/10.4236/oalib.1101718>
- Cai, Z.-J. (2017a). The neurobiological models of language: An updated review. *Psychology & Neuroscience*, 10(3): 297-306. <https://doi.org/10.1037/pne0000101>
- Cai, Z.-J. (2017b). Three types of episodic associations for the semantic/syntactic/episodic model of language prospective in applications to the statistical translation. *Open Access Library Journal*, 4(8): e1103830. <https://doi.org/10.4236/oalib.1103830>
- Cai Z.-J. (2018). The limbic-reticular coupling theory of memory processing in the brain and its greater compatibility over other theories. *Dementia & Neuropsychologia*, 12(2): 105-113. <https://doi.org/10.1590/1980-57642018dn12-020002>
- Cai, Z.-J. (2023). Polymeaning-word congruency and memory division support the semantic/syntactic/episodic model of native language. *Psychology*, 14: 1757-1767. <https://doi.org/10.4236/psych.2023.1412103>
- Fedorenko, E., Scott, T.L., Brunner, P., Coon, W.G., Pritchett, B., Schalk, G. and Kanwisher, N. (2016). Neural correlate of the construction of sentence meaning. *Proceedings of the National Academy of Sciences of the United States of America*, 113(41): E6256-E6262. <https://doi.org/10.1073/pnas.1612132113>
- Friederici, A.D. (2002). Towards a neural basis of auditory sentence processing. *Trends in Cognitive Sciences*, 6(2): 78-84. [https://doi.org/10.1016/s1364-6613\(00\)01839-8](https://doi.org/10.1016/s1364-6613(00)01839-8)
- Friederici, A.D. (2011). The brain basis of language processing: from structure to function. *Physiological Reviews*, 91(4): 1357-1392. <https://doi.org/10.1152/physrev.00006.2011>
- Kuperberg, G.R. (2007). Neural mechanisms of language comprehension: challenges to syntax. *Brain Research*, 1146: 23-49. <https://doi.org/10.1016/j.brainres.2006.12.063>
- Nelson, M.J., El Karoui, I., Giber, K., Yang, X., Cohen, L., Koopman, H., Cash, S.S., Naccache, L., Hale, J.T., Pallier, C. and Dehaene, S. (2017). Neurophysiological dynamics of phrase-structure building during

- sentence processing. *Proceedings of the National Academy of Sciences of the United States of America*, 114(18): E3669-E3678. <https://doi.org/10.1073/pnas.1701590114>.
- Rommers, J., Dijkstra, T. and Bastiaansen, M. (2013). Context-dependent semantic processing in the human brain: evidence from idiom comprehension. *Journal of Cognitive Neuroscience*, 25(5): 762-76. <https://doi.org/10.1162/jocn.a.00337>
- Seyednozadi, Z., Pishghadam, R., and Pishghadam, M. (2021). Functional role of the N400 and P600 in language-related ERP studies with respect to semantic anomalies: An overview. *Nöro Psikiyatri Arşivi*, 58(3): 249-252. <https://doi.org/10.29399/npa.27422>
- Squire, L.R. (1987). *Memory and Brain*. Oxford, NJ: Oxford University Press.
- Ullman, M.T. (2001). A neurocognitive perspective on language: the declarative/procedural model. *Nature Reviews Neuroscience*, 2(10): 717-26. <https://doi.org/10.1038/35094573>
- Ullman, M.T. (2004). Contributions of memory circuits to language: the declarative/procedural model. *Cognition*, 92(1-2): 231-270. <https://doi.org/10.1016/j.cognition.2003.10.008>
- Ullman, M.T., Corkin, S., Coppola, M., Hickok, G., Growdon, J.H., Koroshetz, W.J., and Pinker, S. (1997). A neural dissociation within language: Evidence that the mental dictionary is part of declarative memory, and that grammatical rules are processed by the procedural system. *Journal of Cognitive Neuroscience*, 9(2): 266-276. <https://doi.org/10.1162/jocn.1997.9.2.266>

**Table-1.** Classification of episodic word-congruency in words/grammar/episodic model of language

| Words/grammar/episodic model of language |                   |                                                                                         |                                                       |                                                                                    |                                                                                                                            |
|------------------------------------------|-------------------|-----------------------------------------------------------------------------------------|-------------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Words                                    | Grammar           | Episodic Word-Congruency                                                                |                                                       |                                                                                    |                                                                                                                            |
| Declarative remote memory                | Procedural memory | Declarative immediate/recent episodic memory                                            |                                                       |                                                                                    |                                                                                                                            |
|                                          |                   | Stepwise comprehension by congruency of word characters of polymeaning-word in sentence | Word frequent binding from phrases, idioms, and so on | Inter-sentential congruency in paragraph/text                                      |                                                                                                                            |
|                                          |                   |                                                                                         |                                                       | The meaning of polymeaning-word congruent with the thematic field of its paragraph | The pronoun transferring the more concrete range/relation/logic word character of corresponding noun in different sentence |

**Table-2.** Word character division

|            | Words of Behaviorally Alive Human/Animal                                   | Words of Naturally Changing Matter                            |
|------------|----------------------------------------------------------------------------|---------------------------------------------------------------|
| Nouns      | Zoological/organizational/logic/range/relation                             | Physical/categorical/logic/range/relation                     |
| Pronouns   | Zoological/organizational/logic/range/relation                             | Physical/categorical/logic/range/relation                     |
| Verbs      | Characteristic/affective/behavioral/logic/range/relation                   | Characteristic/changing/logic/range/relation                  |
| Adjectives | Characteristic/affective/behavioral/logic/range/relation /spatial/temporal | Characteristic/changing/logic/range/relation/spatial/temporal |
| Adverbs    | Characteristic/affective/behavioral/logic/range/relation /spatial/temporal | Characteristic/changing/logic/range/relation/spatial/temporal |