

# A Contrastive Study of Chinese AA-Style Reduplication and Redundancy Overlap in Child-Directed Speech

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Child-directed speech (CDS) is the language used by the infants' caretakers for infants. CDS in Chinese has distinctive features of redundancy overlap. Compared with AA-style reduplication in adult-direct speech (ADS), redundancy overlap in CDS has its own characteristics. This paper analyzes the differences in theoretical definition, lexical, semantic, and pragmatic features, etymology, and the motivation. Through the comparison study, the author finds that the difference between AA-style reduplication and redundancy overlap in CDS lies in word distribution, semantic and pragmatic features and nature.

*Keywords:* child-directed speech, redundancy overlap, reduplication, contrastive study

## Introduction

The redundancy overlap in child-directed speech (CDS) refers to the monosyllabic reduplication in CDS, such as “niaoniao” (pee, “尿尿”) and “qinqin” (kiss, “亲亲”), where the superposition of single characters does not change the meaning of semantics of the word. AA-style reduplication refers to words formed by the overlapping of two single characters in daily conversations between adults, and the overlapped words have certain grammatical meaning and pragmatic significance (Lan & Li, 2009). The so-called “AA-style” words in Chinese refer to monosyllabic overlapping words. Zhu (1982) classified the Chinese overlapped words into syllable overlap, morpheme overlap, and word overlap. The syllable and morpheme overlap belong to word formation, while the word overlap belongs to inflection. Yang (2003) believed that the words formed through syllable overlap are double-syllable words, the words formed through morpheme overlap are reduplicated words, and they both are the reduplication of word formation. But the overlap in CDS is the reduplication of word inflection; thus it does not belong to double-syllable words or reduplicated words.

CDS is the language used by adults for children, and its characteristics are almost identical to those of children's own language, and there are studies in China on the overlap of children's language and reduplication in adult-direct speech (ADS). Guo (2010) studied the word class distribution and causes of children's language, and Liu and Chen (2021) examined the lexical characteristics of the redundancy overlap in CDS and the characteristics of children's language in different age groups. In the field of overlap in ADS, Shen (2001) examined the emergence and development of overlapping words, and Chen (2010) examined the emergent meaning of overlapping words. In addition, with regard to the relationship between children's language and ADS,

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Zhu (2004) analyzed the types of overlap in children's language and their commonalities with adult language overlap. However, no systematic comparative study has been conducted on the differences between the redundancy overlap in child-directed speech and AA-style reduplication.

Liu and Hong (2000) mentioned that CDS provides children with a language environment that is appropriate to their language level on the one hand, and reflects the enthusiasm and patience of adults on the other, making learning to speak fun for children, thus making it easy and enjoyable for them to gradually acquire language. Han (2009) mentioned that the use of CDS in specific contexts, responding to and expanding on children's speech, and adopting appropriate verbal interactions have a positive effect on young children's vocabulary development. Sun (2010) mentioned that for CDS to play a positive role in promoting language acquisition, it must have a relatively balanced ratio of communicative, inspirational, and regulatory functions. Therefore, by analyzing the differences of overlap between CDS and ADS, we can better help parents understand and use CDS correctly, thus contributing to children's language acquisition.

### **An Analysis of the Connotations of Redundancy Overlap in CDS and AA-Style Reduplication**

#### **Morphological Variant in AA-Style Reduplication**

The AA-style words in ADS can be divided into reduplication of word formation and reduplication of word inflection, and the reduplication of word formation includes double-syllable words and reduplicated words. Shen (2001) pointed out that the reduplicated words are compound words made up of two identical roots, and double-syllable words belong to polyphony single-morpheme words. Yang (2003) pointed out that, in addition to double-syllable words and reduplicated words, AA-Style reduplications also include reduplication of word inflection, i.e., the lexical meaning remains the same but the grammatical meaning changes, such as "zouzou" (have a walk, "走走"), "piopian" (just/only, "偏偏"), "zhongzhong" (all kinds of, "种种"), etc. According to Yang, a double-syllable word is a single-morpheme word formed by superimposing two identical syllables, a reduplicated word is a compound word formed by superimposing two identical morphemes, and the AA-style reduplication of word inflection is a kind of morphological variant produced by overlapping. Thus, it can be seen that AA-style reduplication is morphological variant.

#### **Redundancy in CDS**

The definition of CDS has been discussed by scholars such as M. Chen and Y. Chen (2006) and Yin (2012). According to M. Chen and Y. Chen (2006), CDS refers to the simplified register by the child's primary caregiver (usually the mother). Compared to ADS, CDS is more simplified and distinctive. According to the speech accommodation theory, we change our speech based on who we are talking to. And the characteristics of CDS include: higher volume, exaggerated intonation, slower speech speed, more pauses, clearer spelling, less use of pronouns (Ma, 2009), etc. Therefore, the features of CDS are close to children's itself.

Zhu (2004) mentioned that overlaps in children's language consist of the following three situations: First, children around the age of one try to emphasize what is being said through overlap, which has a "declarative" function; second, they use overlap to indicate plural things, which has a "similarity" function; third, they use overlap to form a unique, single word. Zhu classifies the first two categories as "overlapping compound words", and the third as "double-syllable words", i.e., only the third is a single word. And the third is the "monophonic overlap in CDS" described in this paper.

According to Zhang (2008), the redundancy refers to the language containing more information than is actually needed, including lexical redundancy, structural redundancy, and supra-sentential unity redundancy. The redundancy overlap in CDS is lexical redundancy.

This leads to a definition of redundancy overlap in CDS: language that tends to be used by the child's primary caregiver with respect to the child and that is characterized by redundancy overlap.

## An Analysis of Distribution of AA-Style Reduplication and Redundancy Overlap in CDS

### Word Distribution

A distribution analysis of AA-style reduplication and redundancy overlap in CDS allows for the classification of both into the following categories (see Figure 1):

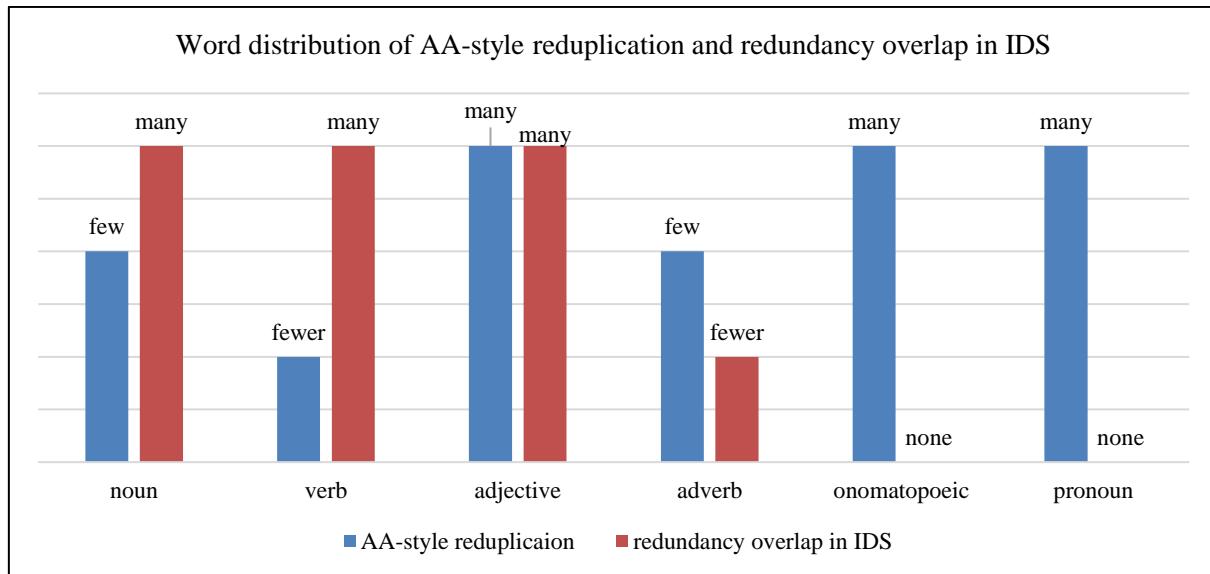


Figure 1. Word distribution of AA-style reduplication and redundancy overlap in IDS.

**Distribution in nouns:** There are fewer AA-style reduplications in the noun form, with very few double-syllable words in the noun form. The noun forms of reduplicated words usually refer to family members, such as “popo” (mother-in-law, “婆婆”) and “meimei” (younger sister, “妹妹”), while the noun form of a few reduplicated words is used to refer to things, such as “mingming” (the unseen world/cosmic, “冥冥”) and “xingxing” (orangutan, “猩猩”). In addition, the noun forms of reduplicated words may also be used to express quantity, meaning “every”, such as “shishi” (age after age, “世世”) and “renren” (everyone, “人人”). Redundancy overlap in CDS is quite common in the noun form, such as “gougou” (dog, “狗狗”) and “shoushou” (hand, “手手”), where the individual syllables can carry information independently and the meaning of the word does not change.

**Distribution in verbs:** There are very few verb-like AA-style reduplications, most of which are reduplicated words. Apart from a very few idiomatic reduplicated verbs (e.g., “rangrang” (shout, “嚷嚷”), “lielie” (talk nonsense, “咧咧”)), the major verbs of reduplication of word inflection are used to indicate the lightness and short duration of an action, e.g., “kankan” (have a look, “看看”), “zouzou” (have a walk, “走走”), “xiexie” (write something, “写写”), etc. Verb-like overlaps are very common in children's language. According to Zhu Lin's (2004) statistics, the overlap of monophthong verbs, such as “chichi” (eat, “吃吃”) and “nana” (take, “拿拿”),

can occur in children's language between the ages of one and six. These verbs disobey the rule of reduplicated verbs, but are purely monophonic and do not change their meanings of single character. Such verbal overlaps also occur in the redundancy overlap in CDS, such as "baobao" (hug, "抱抱") and "qinqin" (kiss, "亲亲"), which are also reduplication of word inflection, mostly used to express intimacy.

**Distribution in adjectives:** The vast majority of AA-style reduplications are adjectives, of which double-syllable words, such as "ququ" (small/only, "区区") and "yaoya" (luxuriant and beautiful, "夭夭") do not have means for individual syllables; reduplicated words, such as "fenfen" (numerous and confused, "纷纷") and "mangmang" (boundless and indistinct, "茫茫") are used mainly to highlight the characteristics of things. And there are adjective reduplications of word inflection, such as "honghongde" (red, "红红的") and "changchangde" (long, "长长的"). The number of adjectives overlapping in redundancy overlap in CDS is high, such as "xiangxiang" (fragrant, "香香") and "tongtong" (sore, "痛痛"), which are also only used to express intimacy.

**Distribution in adverbs:** There are fewer adverbs in AA-style reduplications, with double-syllable words, such as "shanshan" (leisurely, "姗姗") and "zizi" (diligently, "孜孜"), and reduplicated words, such as "jianjian" (gradually, "渐渐") and "pinpin" (repeatedly, "频频"). There are very little adverbial overlaps in CDS.

**Distribution in onomatopoeic words:** AA-style onomatopoeic words are generally all double-syllable words, such as "lielie" (sound of wind, "猎猎") and "chanchan" (sound of water flowing slowly, "潺潺"), and reduplicated words, such as "dingding" (tinkle, "叮叮") and "huhu" (whir, "呼呼"). They are usually used to express the continuity of sound.

**Pronouns:** The AA-style pronouns are all reduplicated words, such as "erer" (so-so, "尔尔"), etc.

### The Analysis of the Word Distribution

When comparing the two, it can be seen that the redundancy overlaps in CDS are simpler, with more nouns, more adjectives, fewer verbs, and generally no other word forms; the AA-style reduplications are mostly adjectives, fewer nouns, and some adverbs, onomatopoeia, pronouns, and the verbs are generally reduplication of word inflection.

In terms of Piaget's cognitive development theory, the process of children's speech development (from the age of one to about two and a half years) has been divided into three stages: single-word sentence period, two-word sentence period, and telegraphic sentence period. In the first two periods, redundancy overlap in children's language is more often observed. In a case study of children's early language acquisition, Gu (2000) showed that the words newly learned by children around one and a half years of age were mostly nouns, followed by verbs and then adjectives. It is therefore logical that CDS, as a language model with characteristics close to children's language, its word distribution of redundancy overlap is close to children's language.

In terms of linguistic structure, the range of use of double-syllable words is relatively small, with most of them, regardless of their word forms, being used only to form fixed four-character words, such as "taozhiyaoya" (slip away, "逃之夭夭") and "liushuichanchan" (streams purl, "流水潺潺"). The use of reduplicated words is relatively flexible, with noun-like reduplicated words usually used on their own, such as "xingxing" (star, "星星") and "gege" (elder brother, "哥哥"), and some of them used to form words, such as "buguoer" (only so-so, "不过尔尔") and "mangmangrenhai" (a vast sea of people, "茫茫人海"), and some of them can be used to form sentences, such as "ganggang" (just now, "刚刚"). Considering the linguistic structure of the AA-style reduplications, the distribution of its word forms can be understood. In the CDS, the use of redundancy overlap is flexible and can be used independently, or to form two-word sentences, such as "chifanfan" (have a meal, "吃饭")

饭饭”) and “jugaogao” (lift somebody high, “举高高”), which belong to the pivot grammar in children’s language, that is, separate the words in two-word sentences into two parts: One is an axial word with a fixed position, and the other is an open word with a flexible position, and children arrange the words according to the semantic role of the two types of words, forming a two-word sentence. Thus the two types of words in a two-word sentence have a certain semantic role relationship, so they are mostly permutations of nouns, verbs, and adjectives (and adverbs).

### **An Analysis of the Semantics and Pragmatics of Redundancy Overlap in CDS and AA-Style Reduplication**

In AA-style reduplication, double-syllable word is a simple word whose single character does not carry information, or whose single character carries information significantly deviating from that of the word, and which does not have a noun or verb meaning. The meaning of a reduplicated word is generally derived from its individual morpheme, and the adjective reduplicated words usually expressing a deepening of degree, nouns expressing a greater number, and verbs expressing a lighter degree, and the individual morpheme in a reduplicated word can carry information independently, and its meaning is generally the same as that of the reduplicated word. The redundancy overlap in CDS, because it’s the reduplication of word inflection, has the same meaning as its single character, and is generally used to express the intimacy of users towards children, as in the words “qinqin” (kiss, “亲亲”) and “shoushou” (hand, “手手”), and they can soften the tone and bring the speaker closer to the child.

CDS speakers use CDS to express an emotional attitude toward the listener, while AA-style reduplication users use it to depict the state of the thing or to express their own emotions about the thing, rather than focusing on the listener. The difference in the use of the two types of word is mainly due to the difference in the listeners of the two. CDS, spoken by the child’s primary caregiver and aimed at children, requires simple clear and focused language spoken that can be imitated and understood, while reduplication has a salient effect and helps children clarify the content of the discourse.

From double-syllable word to reduplicated word, and to redundancy overlaps in CDS, the word has greater flexibility in word formation, and the single character carries clearer information. It can be seen that the clarity of information carried by a single character determines the flexibility of overlap: The more figurative the single character, the more flexible the use of overlap.

### **An Analysis of the Nature of Redundancy Overlap in CDS and AA-Style Reduplication**

Analysis of the nature of AA-style reduplication reveals that the etymology and nature of different word forms are different. According to Shen (2021), double-syllable words can be divided into onomatopoeic words, which originated from ancient times when people created words to imitate the sounds of nature, and descriptive words, which originated from ancient times when people created words to describe the state of things. They were then widely used in poetry because of their phonetic beauty, and have been used ever since. Among the reduplicated words, adjectives originated from the overlapping use of words, initially to emphasize their meaning and express the severity of things, and then gradually formed set phrases; nouns were mostly to express intimacy towards family members, and were then used to today, while its use of naming things, according to Shen, has no traceable origin, and may be influenced by its use of expressing intimacy towards family members, or by

children's language. Few verbs are used as reduplicated words, and the adverbial reduplicated words also have no traceable origin.

Analysis of the nature of CDS reveals that CDS is different from children's language and is the language used by the child's primary caregiver to the child. According to the speech accommodation theory, we change our speech based on who we are talking to, and try to be closer to the speech habits of the person we are talking to, in order to be accepted by the listener (Liu, 2001). It can be seen that CDS is formed when a child carer takes the initiative to change his or her own language style to be closer to the child's language in order to promote his or her goodwill with the child.

Analysis of the nature for both shows that the use of AA-style reduplication originates mainly from the user's description of objects or the expression of his or her own feelings, and is a lexical method used by people in order to fulfil certain expressive needs. In contrast, children's language is used spontaneously by toddlers in the process of acquiring language, and adults, using CDS to strengthen children's language ability, gradually develop the fixed redundancy overlap in CDS based on the speech accommodation theory. The formation process of redundancy overlap in CDS is from the use (the children's innate phonological features) and then the need, and finally the idiomatic use. In other words, the adults find the children's phonological features and then communicate with the children in grammatically correct CDS.

## Conclusion

There is a significant difference between the redundancy overlap in CDS and AA-style reduplication in ADS. Analyzing from the perspective of word forms, the overlap in CDS is mostly simple words such as nouns, verbs, and adjectives, while AA-style reduplications are mainly adjectives, and there are nouns, verbs, adverbs, pronouns, and onomatopoeic words. From a semantic point of view, the overlap in CDS mainly expresses the user's feelings towards the child, while the AA-style reduplication usually expresses the speaker's description of something. From a pragmatic point of view, the single character in CDS overlap does not change the meaning of the word, while the single character in reduplicated words can express the meaning of the word, and the single character in double-syllable words cannot carry information. The overlap in CDS has the highest flexibility of use, and double-syllable word the lowest. Analysis of the nature for both reveals that people use of AA-style reduplication to express a certain need, while the use of CDS started because the caregiver perceived the characteristics of the child's pronunciation.

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