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臺灣兒童對中文四字成語的理解

Taiwanese Children's Comprehension of Chinese Quadra-syllabic Idioms

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摘要

本論文主要探討臺灣兒童如何理解中文成語：從語義透明度(semantic transparency)、結構對稱性(structural symmetry)以及語境效應(context effect)的角度切入，研究以上三項因素在成語習得過程的影響。本研究的受試者為國小二、四、六年級學齡兒童（共六十位）及成人對照組（共二十位），分別進行兩階段測驗：第一階段，受試者在無語境的情況下詮釋成語，他們須從字面義和象徵義中作選擇；第二階段，受試者在故事和插圖中詮釋成語。研究成果，如下：

（一）在兒童的成語理解發展中，語境效應的助益最大，其次為對稱結構，語義透明度則未達顯著。

（二）語境效應能提昇兒童的成語理解能力，但故事和插圖的益處會因年歲增長而降低。

（三）就結構而言，對稱成語（如：風花雪月）比不對稱的成語（如：天馬行空）更容易為兒童所理解。對稱結構的效益會隨年齡增長而逐漸顯現。

（四）語義透明度的作用並不明顯，實際上，兒童對語義透明和不透明成語的理解不相上下（如：口是心非、開門見山）；但語義透明度和結構對稱性的交互作用卻能深度影響兒童的成語理解。

綜上所述，本研究建構一個三階段的成語理解發展模式，以此說明兒童於各階段的成語理解能力。

關鍵詞：語義透明度、結構對稱性、語境效應、漢語成語、第一語言習得

ABSTRACT

This cross-sectional study collected data of children at ages 7, 9, and 11 to simulate the developmental process of comprehension of Chinese quadra-syllabic idioms (*chengyu* 成語 or QIEs). The study examined how semantic transparency, structural symmetry, and contextual support interact and take effect on QIE acquisition. The tested idioms were accordingly categorized into four types as transparent versus opaque and symmetric versus asymmetric idioms (i.e., TS, TA, OS, OA types), and then tested successively out of and in context. The contextual support included both short stories and pictures. Children chose between QIEs' literal and figurative interpretations for comprehension check in the two tasks. The major findings are as below:

1. During the process of children's QIE comprehension, contextual support played the most influential role, followed by structural symmetry, and the least by semantic transparency with insignificant main effect.
2. The children understood Chinese idioms more easily in context than in isolation; their comprehension depended less on contextual support as they grew up.
3. The children understood symmetric idioms more easily than asymmetric ones; their comprehension depended more on symmetric structures as their age increased.
4. The child participants understood transparent and opaque idioms fairly, for the main effect of semantic transparency was overridden by its interaction with structural symmetry.

A 3-stage developmental process of QIE comprehension was proposed to describe children's performance at each stage.

Keywords: semantic transparency, structural symmetry, contextual effect, Chinese idioms, first language acquisition

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Chapter One

Introduction

1.1 Motivation

People love to use idioms in communication because they add colors and vivid images to speech. It has been estimated that most English speakers utter about 3,000 novel metaphors and 7,000 idioms per week, and that four figurative expressions (metaphors or idioms) are spoken in every minute of speech on average (Pollio et al. 1977). Despite their popularity, acquiring idiomatic expressions is not *as easy as a piece of cake* because idioms are a subclass of fixed expressions carrying obscure metaphorical meanings. The idiomatic meaning derives and generally deviates from the combination of literal meanings of the components (Rommers, Dijkstra & Bastiaansen 2013). Thus, understanding the idiomatic meaning requires certain amount of cultural cultivation (Li 2016); otherwise, the meaning will be unintelligible. Zhang (2003) observes that Chinese people are much fonder of idioms than westerners in daily communication, and that one common idiom type is quadra-syllabic idiomatic expressions (QIEs)[1]: traditional Chinese set phrases, for example, *ren-shan-ren-hai* 人山人海 '*people mountain people sea* or a big crowd'. The academic name "QIEs" comes from their compositional form. In Chinese idiom dictionaries, more than 95% of the entries consist of four characters (Zhou 1997, Zhou 2004, Liu et al. 2010), and each Chinese character forms a syllable. Concise in surface form, QIEs represent rhetoric power and an elegant style. Among 50 thousand Chinese idioms in existence, 4,000 to 5,000 of them remain vigorous in spoken language and formal writing today (Li 2016).

[1] The term "quadra-syllabic idiomatic expressions (QIEs)" is adopted from Liu and Cheung (2014). It is also referred to as *chengyu* 成語, or as Chinese idioms in the following text if not specified.

In view of the limited four-character space, the meanings of Chinese idioms tend to be "highly synthetic and compact" (Liu & Cheung 2014:338). The idiomatic meanings cannot be directly gained from their constituents unless people know the semantic fields as in (1), the historical events as in (2), or the cultural background as in (3) from which the particular set phrase originates.

(1) *he-li-ji-qun* 鶴立雞群
crane-stand-chicken-flock
'being an outstanding person in the group'
(2) *hua-long-dian-jing* 畫龍點睛
draw-dragon-dot-eyes
'to add the finishing touch, or to add a word or two to clinch the point'
(3) *han-niu-chong-dong* 汗牛充棟
sweating-cattle-full-beam
'being very knowledgeable, or having a substantial book collection'

Example (1) literally describes a crane standing among chickens and implies that a crane is taller than and superior to chickens. The description of animals' stance and height is compared and applied to people's appearance and ability. Hence, (1) figuratively hints an outstanding person. Example (2) records the anecdote of a historical artist in Nan Liang Dynasty (A.D. 502–557) who could bring the painted dragon to life by putting in the pupils of its eyes. The story points out that "the pupils" are the key to a masterpiece, so (2) actually denotes the most important finishing touch of a work. Example (3) depicts the porterage and storage of books[2] in ancient times when transcripts are written on bamboo slips instead of paper books. The parts *han-niu* and *chong-dong* respectively portray how substantial the books are to make the transporting cattle sweat all along and to occupy an entire building from the floor

[2] Example (3) is the combination of two extracts from the tomb text of a historian in Tang Dynasty (A.D. 618–907). He specialized in the history of The Spring and Autumn Period (722–481 B.C.), so his book collection includes substantial ancient historical records and annotations on bamboo slips.

to the ceiling. Only with enough cultural information can (3) be related to knowledge or book collection. Although Chinese idioms are semantically opaque in general, some are more transparent in semantics. People can see through the literal meaning to get what the idiom really means as in (4).

(4) *ren-yun-yi-yun* 人云亦云
people-say-also-say
'to repeat what others say without one's own thought'

Besides, a couple of Chinese idioms contain ancient Chinese characters[3] and/or grammar[4] or those of lower frequency, such as the advanced character *jin* 錦[5] in (5).

(5) *yi-jin-huan-xiang* 衣錦還鄉
wear-brocade-return-hometown
'to return home in glory' (cf. Appendix I, No.1216)

The advanced character *jin* 錦 is incomprehensible to younger speakers. Not knowing what kind of clothes the home-comer wears, children are hard to decide whether (5) connotes a praise or criticism. The unfamiliarity therefore makes the metaphorical meaning inference even more challenging for children.

Knowing QIEs' opacity, researchers have attempted to reduce the difficulty in their comprehension. Chen (1982) computes that more than one third of QIEs display structural symmetry. Specifically, the fore two characters resemble the hind two in syntax, and the halves express similar or opposite meanings as in (6) and (7).

[3] An example of ancient Chinese character is *qing* 罄 'to exhaust' in *qing-zhu-nan-shu* 罄竹難書 exhaust-bamboo-hard-write 'having conducted too many bad deeds to record (on bamboo slips)'.

[4] An example of ancient Chinese grammar is the O-V construction signaled by the semantically meaningless grammatical morpheme *shi* 是 in *wei-li-shi-tu* 惟利是圖 only-profit-Ø-covet. Transformed into modern grammar, the Chinese idiom should be *wei-tu-li* 'only covet after profit'.

[5] According to National Academy for Educational Research (NAER), *jin* 錦 is graded as an advanced level-5 character, with 47 and 12 occurrences per million characters in written and spoken corpora.

(6) *jin-yi-yu-shi* 錦衣玉食
brocade-clothes-jade-food
'to live a luxurious life' (cf. Appendix I, No.1277)

(7) *wai-yuan-nei-fang* 外圓內方
outer-circle-inner-square
'being smooth and easy-going in manners but highly principled in daily life'

Example (6) has the double substructure of adjective + noun, and both halves *jin-yi* and *yu-shi* suggest a luxurious life. Example (7) has the double substructure of noun + adjective. Its fore half *wai-yuan* conveys the person's smooth attitude in interpersonal interaction while the hind half *nei-fang* conveys that person's strict attitude toward his/her own principles. The symmetric structure provides additional cues for idiomatic inference, as the two halves either reinforce or make contrast to each other in semantics. With such mirroring comparison, speakers unfamiliar with the character *jin* 錦 can still guess the idiomatic meaning of (6) from its symmetric structure. Nonetheless, this strategy is inapplicable to the asymmetric idiom in (5), where no parallel comparison exists.

Aside from semantic transparency and structural symmetry, supportive context can facilitate QIE understanding as well. Consider the sentences in (8) and (9).

(8) *Xuexiao tushuguan de cangshu duoda shubaiwance,*
school library DE books up.to several.million.volume
zhen kewei han-niu-chong-dong!
really can.say sweating-cattle-full-beam
'The school library has a collection of millions of books. What a big collection!'

(9) *Ta lixiang fendou shushinian, rujin shiye youcheng,*
he leave.hometown strive several.decade now career successful
yi-jin-huan-xiang, zhongyu guoshang shushi de shenghuo.
wear-brocade-return-hometown finally live comfortable DE life
'He has left his hometown to struggle for decades. Now that he has a successful career, he finally returns home in silken robes and lives a comfortable life.'

In (8), the necessary information for comprehension of *han-niu-chong-dong* is supplemented by its preceding context ‘book collection in the school library’. In (9), the context tells that the home-comer is a successful businessman, so it can be inferred that he is likely to wear beautiful clothes and be proud of and confident in himself. Precisely, people are prepared by the preceding and surrounding context as they encounter obscure Chinese idioms (cf. Federmeier 2007, Rommers, Dijkstra & Bastiaansen 2013). The contextual clues serve to eliminate ambiguity, to convey emotional implications, and to supply omitted information (Xu 2013). Accordingly, the unknown character and deficient cultural background can be cushioned, and misinterpretations can be prevented.

Chinese quadra-syllabic idioms are the essence of classical Chinese. They characterize intricate obscure meaning, stable pithy form, and rich socio-cultural influences. Culturally grounded, QIEs’ meaning “typically involves a conflation of social, political, contextual, attitudinal, and emotional factors” (van Lancker Sidtis 2006:215). “The multidimensional nature of Chinese idiom semantics is yet *a tough nut to crack*” (Zhang et al. 2013:90). Chinese idioms’ exquisite delicacy calls for more attention in language comprehension even for mature native speakers, not to mention children. In addition, figurative language development requires not only linguistic but also cognitive considerations (Berman & Ravid 2010), frequency of exposure (Tomasello 2003), and the cultivation of cultural knowledge (Liu & Cheung 2014). Lacking (or rather not as competent) in these aspects, children — whose awareness of figurative language is increasing rapidly at preadolescence with much individual difference (Nippold & Duthie 2003, Liu & Cheung 2014) — need extra help to understand the most refined Chinese idioms. Hence, the main purpose of this study is to figure out the crucial factors in QIE comprehension by children of different school-age years.

1.2 Research Questions

Targeting children's figurative language development, the current study raises four research questions (RQs) about comprehension of Chinese quadra-syllabic idioms (QIEs). The RQs correspond to the three research foci, as demonstrated in Figure 1-1.

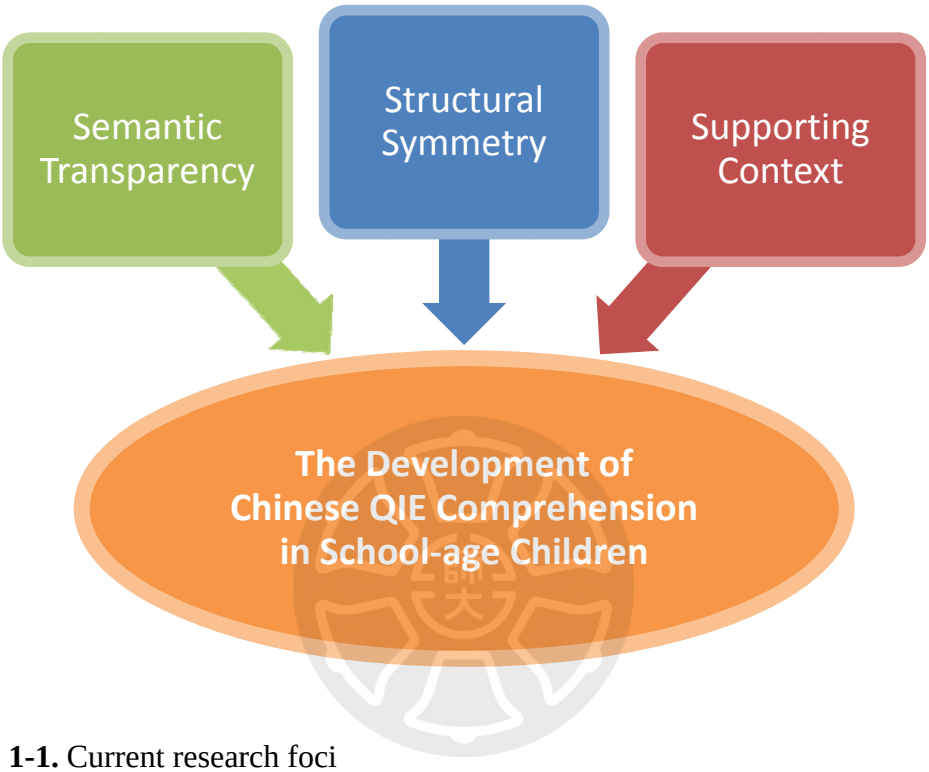


Figure 1-1. Current research foci

RQ1: How does semantic transparency influence Taiwanese children's comprehension of Chinese quadra-syllabic idioms in different school-age years?

RQ2: How does structural symmetry influence Taiwanese children's comprehension of Chinese quadra-syllabic idioms in different school-age years?

RQ3: How does supporting context influence Taiwanese children's comprehension of Chinese quadra-syllabic idioms in different school-age years?

RQ4: How do these three factors interact in the development of Taiwanese children's comprehension of Chinese quadra-syllabic idioms in school-age years?

1.3 Significance of the Study

Chinese QIEs are a unique type of idioms. Thanks to their ubiquity, opaque meaning, special form, and social function, Chinese idioms have attracted constant research interest in the past decades. Several factors have been identified as influential to the acquisition of QIEs: semantic transparency (Lin 2009, Zhang et al. 2013, Liu & Cheung 2014, Liu & Yao 2017), familiarity and context (Hsieh & Hsu 2010, Li 2016), structural semantic symmetry and reference to Chinese classics (Huang et al. 1999, Liu & Xing 2000, Liu & Cheung 2014, Liu & Yao 2017), etc. In spite of ample research attention, majority of the experiments have focused on just one factor or just one age group (i.e., the contrast between children and adults, cf. Liu & Cheung 2014). In other words, no systematic research has been conducted on the developmental process of QIE acquisition so far. The present investigation on the function of semantic transparency, structural symmetry, and contextual support on the development of Chinese idiom comprehension fills the niche. “Studies on figurative language learning are important as they provide information about human cognition and later language development” (Liu & Cheung 2014:351).

1.4 Organization of the Thesis

This thesis is organized as follows: Chapter Two reviews different approaches to idioms, critical semantic, structural, and contextual issues and empirical studies concerning Chinese QIE comprehension. Chapter Three presents the research design of the study, inclusive of a pilot. Chapter Four shows experimental results and discusses significant findings. Chapter Five summarizes the major findings and offers suggestions to future research.

Chapter Two

Literature Review

This chapter brings up different perspectives on idioms and probes into critical factors in comprehension of Chinese quadra-syllabic idioms and also into related empirical studies. Section 2.1 introduces in brief three approaches to idiom processing and representation. Sections 2.2 to 2.4 address the semantic, structural, and contextual issues of idioms in turn. Section 2.5 proposes corresponding hypotheses of this study. Section 2.6 summarizes the chapter.

2.1 Three Approaches to Idiom Processing and Representation

With a long tradition in psycholinguistic literature, theoretical research and models have contrived to demonstrate idiom processing and representation. They all face the question of how to characterize the unitary nature of idioms when, paradoxically, the idiomatic meanings are build upon the literal interpretations of the component elements. Considering their stance, the idiom processing models broadly take three different approaches: the non-compositional approach, the compositional approach, and the hybrid approach. For a detailed comparison between models of the three approaches, please see Appendix A.

In the non-compositional approach, idioms are represented as unanalyzable single units just like lexical words, and idiom processing almost equals to an independent retrieval of idioms' metaphorical meaning. Advocates of such perspective are the idiom list model (Bobrow & Bell 1973), the lexical representation model (Swinney & Cutler 1979), and the direct access model (Gibbs 1980, 1986).

Contrarily, in the compositional approach, idiom phrases are represented as configurations with distributed meanings in the lexicon, and idiom processing

requires activation of both the idioms' literal and figurative meanings. That is, literal analysis of idioms is not marginal but rather beneficial for the compositional approach. The idiom decomposition model (Gibbs & Nayak 1989, Gibbs, Nayak & Cutting 1989), the configuration model (Cacciari & Tabossi 1988, Cacciari & Glucksberg 1991), and the phrase-induced polysemy model (Glucksberg 1993, Glucksberg 2001) approve this attitude.

Taking merits from both approaches, the hybrid approach (Titone & Connine 1999) holds the opinion that idiomatic expressions may be simultaneously compositional and non-compositional, and that which representation and processing route an idiom prefers is relative to qualities, such as conventionality, semantic transparency (or literality, decomposability, compositionality), syntactic productivity (or flexibility), frequency, familiarity, and context. The graded salience model (Giora 1997, 1999, 2002, 2003), dual route model (van Lancker Sidtis 2012, Wray 2002, Wray & Perkins 2000), and plentiful more recent studies (e.g., Nunberg et al. 1994, Zhang et al. 2013) agree with this viewpoint.

I assume that Chinese quadra-syllabic idioms are more compositional than non-compositional idioms, so two of my research foci (i.e., semantic transparency and structural symmetry) point at the internal analysis of Chinese QIEs. The just mentioned theoretical studies under the three approaches can be re-organized by issue[1] instead of by approach, and most of them are in discussion of the relevant sections.

[1] The idiom studies mentioned in Section 2.1 can be re-organized by issue as follows: conventionality (Gibbs 1980, 1986, Numberg et al. 1994, Giora 2002), literality (Numberg 1978), semantic decomposability (Gibbs & Nayak 1989, Titone & Connine 1999), transparency (Gibbs, Nayak & Cutting 1989), compositionality (Numberg et al. 1994), syntactic productivity or flexibility (Gibbs & Nayak 1989), frequency (Giora 2002), familiarity (Giora 2002, van Lancker Sidtis 2012), and context (Bobrow & Bell 1973, Gibbs 1980, 1986, Cacciari & Tabossi 1988, Giora 2002).

2.2 The Semantic Issue of Idioms

With double planes of meanings, "Chinese idioms live by the figurative meanings that live by the literal meanings of themselves." (Ma 1985:239) Despite general opacity, QIE's meanings vary on the continuum of semantic transparency. For more transparent idioms like (1), "individual components contribute directly to the overall figurative interpretation" (Gibbs 1991:613-614). For more opaque idioms like (2), components "do not contribute individually to … figurative meaning" (Gibbs 1991:613-614).

(1) *yi-yu-dao-po* 一語道破
one-words-say-penetrating
'to disclose the truth with one penetrating remark'
(2) *guai-wan-mo-jiao* 拐彎抹角
turn-corner-turn-corner
'to talk in a roundabout way, or to beat around the bush'

Next, Section 2.2.1 reviews semantic taxonomies of idioms; Section 2.2.2 reviews the transparency effect in Chinese QIE studies.

2.2.1 Semantic Taxonomies of Idioms

More traditional approaches[2] regard idiomatic expressions as non-compositional long words and idiomatic meanings as a complete indivisible whole to which the literal meanings of constituents were in no way relevant (Bobrow & Bell 1973, Swinney & Cutler 1979, Gibbs 1980, 1986). Revising the single semantic-chunk view of idiomaticity, phraseologists (Nunberg 1978, Cutler 1982, Gibbs, Nayak & Cutting 1989, Cacciari & Glucksberg 1991, Glucksberg 1993, Nunberg, Sag & Wasow (1994) have proposed various taxonomies to refine the semantic characterization of idioms.

[2] The non-compositional perspective has been taken by Weinreich 1969, Fraser 1970, Katz 1973, Chomsky 1980. It is compatible with the traditional view of figurative language understanding.

In spite of slight difference in terminology, the researchers share a sorting criterion by dealing with internal semantics of idioms, or specifically, the relation between literal meanings of constituent words and the overall metaphorical meanings.

Among the taxonomies, “semantic transparency” (Seuren & Wekker 1986, Nippold & Taylor 1995) and “compositionality” (Nunberg, Sag & Wasow 1994) are the two long-lasting benchmarks. The concept of “semantic transparency” (Seuren & Wekker 1986), though not devised for idioms, has been widely adopted in idiom classifications. Relevant to the surface form of language, semantic transparency describes that the least information intake necessary for semantic comprehension, the more transparent the message is; and that the more information needed, the less transparent the message (Seuren & Wekker 1986). The concept evokes an important question: how much is sufficient? There is no standard amount and no clear-cut dividing point to the extent. As for “compositionality”, Nunberg, Sag and Wasow (1994) depict that constituents of highly compositional idioms carry a large amount of “identifiable parts of their idiomatic meanings” (p.496).

For a lack of definite standard, early taxonomies of idioms are produced based upon subjective judgments on decomposability (Nunberg 1978), transparency (Cutler 1982, Gibbs, Nayak & Cutting 1989, Cacciari & Glucksberg 1991), and compositionality (Nunberg, Sag & Wasow 1994). These taxonomies are exemplified in Appendix B. Controversially, the same idiomatic phrase *spill the beans* is assigned incongruently to the abnormally decomposable class (Nunberg 1978), to the semi-transparent type (Gibbs, Nayak, & Cutting 1989), and to the transparent group (Cacciari & Glucksberg 1991). The inconsistent classification unveils the problem of arbitrary subjective judgments. The divergence obliges an introduction of more objective and systematic ratings on idioms.

2.2.2 Empirical Studies on Semantic Transparency

This section lays out the research designs and findings of Nippold and Taylor (1995), Zhang et al. (2013), Liu and Cheung (2014), and Liu and Yao (2017) and makes a discussion on the transparency effect at the end.

Nippold and Taylor's (1995) study on English idioms

Nippold and Taylor (1995) interpreted the term "semantic transparency" as the relatedness between the literal and figurative meanings of an idiom; alternatively, the concept of semantic transparency was a continuum. Nippold and Taylor (1995) then came up with a more objective measure to sort idioms, that is, to evaluate the idiomatic meanings on a 7-point Lickert scale, with 1 point indicating transparent and 7 points opaque, as in Figure 2-1. Nippold and Taylor (1995) posited that the higher transparency of an idiom, the closer its idiomatic meaning was to the literal meaning; that the lower transparency, the closer its meaning to the figurative one.

Figure 2-1. Embodiment of the concept "semantic transparency"
(derived from Nippold and Taylor's methodology in 1995)

To verify their assumptions, Nippold and Taylor (1995) administrated 150 English-speaking children and adolescents (i.e., the 5th, 8th, and 11th graders) to do forced-choice idiom comprehension. They found that idioms of higher transparency were easier to understand and the opaque ones harder, and that young speakers' performance on transparent idioms improved steadily with age. Boers and Demecheleer (2001) supplemented that the more transparent an idiom was, the easier to infer the idiomatic meaning; thereby its components played a more important role; and in contrast that the less transparent an idiom was, the heavier reliance on contextual support for the idiomatic inference. If the components' meanings and the figurative meaning shared similar conceptual fields and semantic categories, like *hand* and 'control' conveyed in *get out of hand*, it signified that the idiom embraces high compositionality.

Zhang et al.'s (2013) ERP study[3]

Zhang et al. (2013) implemented the event-related brain potentials (ERPs) to investigate the comprehension of Chinese idioms with high, medium, and low compositionality. The experimental stimuli were established on strict selections by independent groups of native speakers. The selected Chinese idioms possessed a unitary structure of double verb + noun. Their familiarity was rated with over 95% recognition of 4 points (*familiar*) or above out of 5. The feasibility of their literal interpretations from dictionary were evaluated and revised. The semantic relevancy between idioms and their refined literal interpretations was double checked on a 5-point scale. Idioms with inconsistent ratings and ratings nearing the dividing points

[3] As Wikipedia puts it:

> An event-related potential (ERP) is the measured brain response that is the direct result of a specific sensory, cognitive, or motor event. More formally, it is any stereotyped electrophysiological response to a stimulus. The study of the brain in this way provides a noninvasive means of evaluating brain functioning. (Event-related potential 2023)

of classification were dropped out. Eventually, the experimental stimuli comprised 108 Chinese idioms with high, medium, and low compositionality as in (3a–c) each, 36 control literal phrases of the same double verb + noun structure, and 48 fillers (idioms of other structures).

(3) a. *ju-jing-hui-shen* 聚精會神 (highly compositional idiom)
gather-mind-assemble-spirit
'to concentrate one's attention'
b. *hui-ji-ji-yi* 諱疾忌醫 (medium compositional idiom)
scruple-illness-avoid-doctor
'to cover up one's shortcomings for fear of criticism'
c. *kai-tian-pi-di* 開天闢地 (low compositional idiom)
open-sky-develop-earth
'the creation of the world, or to open, to develop' (Zhang et al. 2013: 110)

In the ERP experiment, subjects were asked to do semantic relevancy judgments (Yes or No) on Chinese QIEs primed by their word-by-word literal interpretation. Effective EEG[4] data was recorded from 15 undergraduate Mandarin speakers in China.

Two components, the N250[5] indexing form-level processing and the N400[6] indexing semantic processing, were observed in Zhang et al.'s (2013) ERP study. Among three idiom types, low compositional idioms produced lower accuracy rate and the largest effects of both components; highly compositional idioms induced the smallest effects, in fact, the N250 hardly having any early peak. Compared with idioms, literal phrases generated even larger amplitudes for the two components and were reacted slower during the semantic judgment task. A putative model was accordingly formulated for QIE comprehension: with stages of a pre-lexical form

[4] "The electroencephalogram (EEG) is a recording of the electrical activity of the brain from the scalp. The recorded waveforms reflect the cortical electrical activity." (EEG 2023)
[5] The N250 component is a negative waveform peaking at about 250 milliseconds after stimulus onset. Zhang et al. (2013) made the first report of the N250 effect on Chinese idiom comprehension, which was unprecedented in earlier research on Indo-European idioms.
[6] The N400 component is a negative waveform peaking at about 400 milliseconds after stimulus onset.

(character) recognition synchronized with preliminary meaning retrieval, followed by post-lexical semantic integration with contextual constraints. The general results of Zhang et al.'s (2013) study testified for the influence of compositionality on QIE comprehension, upholding the *Compositional Hypothesis* (Glucksberg 1993, 2001). The hypothesis suggested that the meanings of individual characters remained cognitively dynamic and accessible in the process of Chinese idiom comprehension, as a conceptual reference for idiomatic meaning inference. The results further validated the view of difference representations for highly and low compositional idioms. As Zhang et al. (2013) declared, "Familiar Chinese idioms [were] in nature 'sleeping' metaphors rather than 'dead' ones" (p.107). That is, the metaphoric force of familiar Chinese idioms was gradually reduced in the process of lexicalization.

Liu and Cheung's (2014) study

Liu and Cheung (2014) aimed at the effects of semantic opacity and structural symmetry on the acquisition of Chinese QIEs. The participants included twenty adults and twenty 11-year-old children, the latter who were at a soaring stage of developing abstract figurative language (Nippold & Duthie 2003). The test items underwent an assessment of "opacity" on a 4-point Lickert scale by 38 Chinese majors. The resultant list of 24 Chinese idioms, all abiding by rules of all familiar component characters and of no occurrence in children's textbooks, were divided into four types: transparent (T) or opaque (O) and symmetric (S) or asymmetric (A), as in (4a–d). Difference between opacity ratings of big T and O types was categorically significant; symmetric idioms referred to Chinese QIEs with syntactically parallel fore and hind halves.

(4) a. *da-cai-xiao-yong* 大材小用 (TS idiom)
big-material-small-use
'a waste of somebody's talents'
b. *dian-dao-shi-fei* 顛倒是非 (TA idiom)
revert-black-and-white
'to distort the facts'
c. *kou-mi-fu-jian* 口蜜腹劍 (OS idiom)
mouth-sweets-heart-swords
'a Judas kiss'
d. *yu-rou-xiang-li* 魚肉鄉里 (OA idiom)
fish-meat-countryside-in
'to victimize people' (Liu & Cheung 2014: 342)

The experiment covered a sentence production task and a forced-choice interpretation task. The production task required participants to write down a well-formed sentence with each Chinese idiom, and the subsequent comprehension check asked for the idiomatic meaning from mere options of literal reading, figurative reading, and related misinterpretation. Only correct interpretations were counted for further analysis, and two evaluators were invited to judge the appropriateness of the sentences separately. All-fitting sentences (e.g., *a certain QIE is an idiom*) were weeded out, and inter-rater disagreement was coordinated to achieve unanimity.

The behavioral data of Liu and Cheung (2014) exhibited that semantically transparent idioms were easier for both children and adults, and that opaque asymmetric idioms were the most difficult, those with special cultural context in particular. Children's trouble with OA idioms in isolated interpretation was the proof. The evidence underpinned the compositional perspective on idioms (Cacciari & Tabossi 1988, Titone & Connine 1994, 1999) and Nippold's metasemantic hypothesis (Nippold 1998, Nippold & Duthie 2003). The latter asserted, "beyond exposure to idiomatic expressions, learners analyze the expressions internally to infer meaning"

(Nippold & Duthie 2003: 788). In theory, competence of use was accomplished after competence in comprehension. However, three participants were able to make acceptable sentences without proper understanding of some transparent idioms[7]. The researchers speculated that these participants might memorize the idioms by rote in a similar fashion to other lexical units, and that the sentences might be the outcome of direct "copy-and-paste" from dictionary examples or simply opportunistic products. With regard to error analysis, more related misinterpretations were chosen than literal meanings in interpretation, and no response was more common in sentence production especially for adults. The preference over interfering interpretations backed up the metasemantic hypothesis (Nippold 1998, Nippold & Duthie 2003) that awareness of figurative language developed dramatically at preadolescence. Failures in sentence making (e.g., silence, inappropriate context, and an all-fitting strategy) were attributable to the lack of relevant cultural and pragmatic knowledge of QIEs.

Liu and Yao's (2017) CFL study[8]

Liu later cooperated with Yao in 2017 in research of the opacity and symmetry effects on foreign learners' comprehension of Chinese idioms. The materials were selected and designed likewise. A sum of 40 QIEs was evenly distributed among four types: TS, TA, OS, and OA idioms (cf. Liu & Cheung 2014). Sixty effective data was collected in China from foreigners of eighteen nationalities and with upper-intermediate to advanced Chinese proficiency. The participants completed a forced-choice interpretation task and a self-reported questionnaire. The tested idioms were presented in characters along with three interpretative choices, and the

[7] The exceptions were *jin-tui-liang-nan* 進退兩難 'be in a dilemma' (TA 1.26), *wu-shi-ren-fei* 物是人非 'people have changed' (TS 1.34), and *zhi-shou-hua-jiao* 指手畫腳 'to criticize this and condemn that' (TS 1.68). The idiom's type and mean opacity rating are in parentheses.

[8] A CFL study researches on Chinese as a foreign language.

questionnaire inquired about how foreigners' interest, learning difficulty, and knowledge of similar L1 variants affected QIE comprehension. Accuracy for interpretation rendered 55.58%, and again, transparent idioms were easier. Yet interactive with the symmetry effect, TS idioms and OA idioms were proved easier. The post-test questionnaire revealed that opacity caused the greatest learning difficulty, and that it surpassed cultural information, both over structure. Given the importance that foreigners attached to cultural context, the highest accuracy indeed occurred at idioms with many exotic variants, where positive transfer took effect.

Discussion

The reviewed studies on semantic transparency are summarized in Table 2-1. In concert, Zhang et al. (2013), Liu and Cheung (2014), and Liu and Yao (2017) justify the transparency effect that QIEs with transparent idiomatic meanings are easier to understand than those with opaque meanings. This finding has been established on performances of 11-year-old and mature native speakers, yet the transparency effect on the acquisition process of Chinese QIEs is untracked. In terms of interactive effects, highly compositional QIE comprehension facilitated by supportive contextual cues consumes least energy and entails mere character recognition (Zhang et al. 2013). Regarding the structure, OA idioms are the most difficult for children (Liu & Cheung 2014), but TS and OA idioms are easier for foreigners (Liu & Yao 2017). The counter findings may result from inter-group differences in participants (i.e., the incompatible bases for L1 and L2 acquisition) and in material selections. In fact, the transparency ratings of OS and OA idioms are unequal (mean ratings 2.82 and 3.29 out of 4) in the L1 study (Liu & Cheung 2014) while the ratings are unspecified in the L2 study (Liu & Yao 2017).

Table 2-1. Comparison between idiom studies on semantic transparency

Study	Focus	Task Designs	Findings	Limitations
Nippold & Taylor (1995)	English idioms (children at grade 5, 8, 11)	Force-choice idiom comprehension	Transparent idioms were easier, vice versa. Young speakers' job on transparent idioms improved steadily with age.	Pass over younger kids.
Zhang et al. (2013)	QIEs with high/mid/low composition-al ity	Semantic relevancy judgments (Yes or No) → ERP study	High QIEs: high accuracy, less form-level and semantic processing Low QIEs: the opposite Model: form & meaning => context integration	Do not cover the process of acquisition.
Liu & Cheung (2014)	Transparency & Symmetry on QIE acquisition (age 11, adults)	-Sentence production -Interpretation	Transparent idioms were easier. Children had trouble interpreting OA idioms.	Treat children as a whole. Do not look into their progress.
Liu & Yao (2017)	Transparency & Symmetry on CFL QIE comprehension	-Interpretation -Questionnaire	Transparent idioms were easier; so were TS/OA ones. Low accuracy: 55% Difficulty ranks: opacity > culture > symmetry	(L2 study)

Note: In the third row, "High/Low QIEs" refer to highly/low compositional QIEs.

Besides idiom ratings, Liu and Yao (2017) do not make comparison between foreigners' and native speakers' behaviors; the default reference point leaves the appropriateness of the experimental design open for dispute. For task designs, a comparatively high accuracy has been obtained from both the semantic relevancy judgment on familiar idioms (Zhang et al. 2013) and forced-choice interpretation of isolated idioms (Liu & Cheung 2014), but the score for sentence production by children has been low (46% and adults 72%) (Liu & Cheung 2014). Evidently, a production task of QIEs is too demanding for the 11-year-olds, whose figurative language is still evolving and whose contact with Chinese QIEs is still young (Nippold & Duthie 2003).

Put aside the consensus and limitations of Chinese QIE studies. A steadily increasing effect of transparency has been observed in Nippold's serial research[9] on acquisition of English idioms (Nippold & Taylor 1995). Boers and Demechelee (2001) add that opaque idiom comprehension relies heavily on context. Plus, CFL learners[10] submit the difficulty ranks of opacity over cultural context over symmetry for QIE comprehension (Liu & Yao 2017). With reference to these findings, predictions can be made that semantic transparency is the dominant factor along the process of Chinese QIE acquisition, and that supplementary context is more beneficial than symmetric structure for idiomatic inference. The assumptions and the contrary interactive effects of transparency and symmetry await further examination.

[9] Nippold has done an extensive investigation (Nippold & Rudzinski 1993, Nippold & Taylor 1995, Nippold 1998, Nippold & Duthie 2003) into English speakers' developmental changes in idiom acquisition, which covered their childhood, the school-age and adolescent years, over to adulthood.

[10] The foreign learners get accuracy slightly above chance level in forced-choice QIE interpretation. Their performance is similar to the second graders' on an identical task in the pilot of this study.

2.3 The Structural Issue of Idioms

With a strict four-character pithy form, Chinese quadra-syllabic idioms own special structural features. The term “structural flexibility” denotes that the metaphorical meaning remains unaffected even when the idioms undergo a substitution, insertion, or syntactic transformation. The term “structural symmetry” refers to the symmetric double substructures in Chinese QIEs, of which the fore two characters resemble the hind two characters in syntax, and of which the two halves express similar or opposite meaning. The symmetric structures of noun + adjective in (5) convey identical meanings, which reinforce idiomaic interpretation. The symmetric structures of verb + noun in (6) convey comparable meanings, and this comparison enhances idiomatic inference.

(5) *hai-kuo-tian-kong* 海闊天空
sea-broad-sky-spacious
‘having wide boundless living space, or being large- and open-minded’

(6) *qu-ji-bi-xiong* 趨吉避凶
approach-fortune-avoid-misfortune
‘to seek good luck and avoid evil’

Next, Section 2.3.1 reviews idiom studies on structural flexibility; Section 2.3.2 reviews Chinese QIE studies on structural symmetry.

2.3.1 Empirical Studies on Structural Flexibility

This section lays out idioms studies on structural symmetry, and its effect has been proved for English idioms (Gibbs & Nayak 1989, Gibbs, Nayak & Cutting 1989) yet not for Chinese QIEs (Liu et al. 2010).

Studies on English idioms

While most research has put their effort on revealing idioms' semantic nature and its relation to components, some compositional approaches accommodate analysis of idioms' internal structure. Based on Nunberg's (1978) trichotomy of English idioms (cf. Appendix B), Gibbs and Nayak (1989) hypothesized that semantic composition decided the maintenance of idioms' metaphoric force in syntactic transformations. Native English speakers were recruited to do semantic relevancy judgments on the idiomatic meanings in syntactically manipulated sentences and pronominalized constructions. The results indicated that normally decomposable idioms were able to retain the figurative meanings in various syntactic and pronominal forms better than abnormally decomposable and non-decomposable idioms. Gibbs, Nayak, and Cutting (1989) also invited undergraduate native speakers to make "idiomatic decisions" on transparent, semi-transparent, and opaque idioms (cf. Appendix B). That is, participants had to judge whether an idiomatic string in different syntactic formats was still accepted as an idiom. The reaction time data displayed that the more transparent an idiom, the faster and easier its idiomatic meaning could be understood regardless of the syntactic form, and vice versa. The idiom decomposition model concluded that idiomatic expressions were initially processed in a compositional manner, whereby speakers analyzed the individual elements. Semantic decomposability and transparency best predicted an idiom's metaphoric force, and the more analyzable an idiom, the more intelligible its figurative meaning in various syntactic formats. Polar to the structural flexibility in English idioms, Chinese QIEs have stable forms and thus forbid any semantic substitution and syntactic transformation.

Liu et al.'s (2010) ERP study on Chinese QIEs

Liu et al. (2010) studied how structural analysis of elements' parts of speech influenced Chinese idiom comprehension. They used violation paradigm[11] on a special QIE structure in which the third character was a transitive verb and the fourth was its direct object (a noun). The experiment framed 4 conditions as in (7a–d), and the variation lay in the last character.

(7) a. Congruous condition (Con): *xiao-li-cang-dao* 笑裡藏刀
smiles-in-hide-daggers
'hiding daggers behind smiles'
b. Synonym condition (Syn): **xiao-li-cang-jian* 笑裡藏劍 'sword'
c. Semantic violation (Sem): **xiao-li-cang-fang* 笑裡藏房 'room'
d. Combined violation (Com): **xiao-li-cang-tou* 笑裡藏投 'throw'
(Liu et al. 2010:619)

The congruous condition has the correct noun as *dao* 'dagger' in (7a). In the synonym condition, the final character was substituted with a synonymous noun as *jian* 'sword' in (7b). Semantic violation specified the condition where the last character was a semantically-irrelevant yet syntactically-acceptable object as *fang* 'room' in (7c). The combined semantic and syntactic violation pointed to a character improper in both aspects as *tou* 'throw' in (7d). It was guaranteed that the synonyms had the closest relations to the correct nouns, and that the targets' frequency and stroke number were matched across conditions. Efficient EEG data was obtained from 21 native Mandarin Chinese speakers in Beijing, who answered on the question about whether the fourth character was the correct idiom component. The stimuli were presented character by character, mimicking the compositional processing of regular phrases or short sentences.

[11] Violation of expectation technique is established on the idea that people employ more energy to understand an unexpected or impossible situation.

The behavioral data in Liu et al.'s (2010) ERP study manifested that response accuracy of semantic and combined violations were significantly higher than that of congruous and synonym conditions, and that the reaction times for rejecting synonyms were marginally significantly longer than the two violations. There was no evidence for a morphosyntax-related ELAN [12] effect; the three incongruous conditions all elicited a semantics-relevant N400 component and a later supposedly syntax-associated P600[13] component. Noticeably, the negativity was smaller but still significant in the synonym condition, while the positive gap was marginal between the synonym and two violation conditions. The ineffective ELAN could be explained by the absence of morphology in Chinese and the structural stability in QIEs. Such typological difference in morphology brought out momentous implications; in particular, semantic and contextual cues were much more influential than grammatical cues for language comprehension in Chinese (Li 1996, Li, Bates & MacWhinney 1993). Further, the lack of ELAN might insinuate that Chinese idioms were represented more like an indissoluble unit in the mental lexicon. Another crucial finding was that the results of the N400 and P600 components almost overlapped each other upon all conditions. This gave ground to three hypotheses that Chinese semantic processing could proceed despite failures in syntactic or structural analysis, and that semantic analysis would naturally took over in Chinese phrasal comprehension[14]. Finally, the P600 component perhaps did not specialize in detecting syntactic problems, but was rather a more general signal sensitive to structure at various levels of linguistic and perceptual processing.

[12] The ELAN stands for early left anterior negativity, an ERP in EEG or a component of brain activity that occurs in response to morpho-syntactic incongruity in early local-structure building. It has been reported to be task-irrelevant, autonomous and universal in studies of Indo-European languages.
[13] The P600 component is a positive waveform peaking at about 600 milliseconds after stimulus onset.
[14] Assumptions on Chinese semantic processing also contradicted Indo-European linguistic systems.

In conclusion, structural analyses on syntax and parts of speech are useful to understanding Indo-European idioms, but these methods were not as helpful to understanding Chinese quadra-syllabic idioms

2.3.2 Empirical Studies on Structural Symmetry

This section briefly introduces the feature of structural symmetry, lays out the research designs and findings of Liu and Xing (2000), Huang et al. (1999), Liu and Cheung (2014), and Liu and Yao (2017), and makes a discussion on the symmetry effect at the end.

The feature of structural symmetry in Chinese QIEs

Sun (1989) advances that the uniformity in Chinese quadra-syllabic idioms' form leads to other unique linguistic characteristics, specifically phonological and semantic distribution. In accord with the rhythmical patterns and prosodic features rendered by the two-plus-two syllables, a great number of Chinese idioms are made up of double substructures, mostly parallel with each other. That is, structural symmetry represents the unique syntactic parallels in Chinese quadra-syllabic idioms, which denote similar or contrasting semantics, as in (5) and (6) (cf. Section 2.3). Chen (1982) suggests that at least one third of QIEs own this structural as well as semantic symmetry. "Such feature of being symmetric in structure actually provides additional information in [idiomatic] inference, as the two [halves] either reinforce or set contrasts to each other in semantics" (Liu & Yao 2017:28). Zhang et al. (2013) explicate that famous for a distinct national style, Chinese idioms embody the esthetic pursuit of symmetry deeply rooted in oriental thinking.

Liu and Xing's (2000) and Huang et al.'s (1999) studies

Liu and Xing (2000) analyzed 35,758 entries in *Hanyu Chengyu Cihai* (*Chinese Idiom Dictionary*) and declared that approximately 40% of Chinese QIEs featured semantic symmetry. Liu and Xing's (2000) follow-up lexical retrieval experiment demonstrated that QIEs with semantic symmetry were much easier to comprehend than those without. Huang et al. (1999) explored the effect of symmetry and familiarity on Chinese idiom in identification and re-recognition tasks. The results of Huang et al. (1999) exhibited that both symmetric structure and familiarity produced significant effects on identification, and that response times for both symmetric and familiar idioms were shorter than those without and less familiar. In contrast, Huang et al. (1999) only observed a significant symmetry effect in re-recognition.

Liu and Cheung's (2014) L1 study and Liu and Yao's (2017) L2 study

Liu worked with Cheung (2014) and with Yao (2017) in research on the transparency and symmetry effects on Chinese QIE acquisition in L1 and in L2. The two studies were designed similarly as aforementioned in Section 2.2.2. The L1 data showed that the symmetry effect was only noticeable in forced-choice interpretation, but not in sentence production. As Nippold's metasemantic hypothesis (Nippold 1998, Nippold & Duthie 2003) stated, without contact with idioms and notice of the linguistic context, learners resorted to internal analysis for idiomatic inference. The symmetric halves of QIEs were, in fact, antitheses that made similar or opposite comparisons for better understanding of the overall idiomatic meaning. Eleven-year-old children's difficulty in interpreting OA idioms, especially those with special cultural context, was the evidence. Contrary to the performance in interpretation, children's sensitivity to structural symmetry varied from the adults' in sentence production; specifically, they created more correct sentences with

asymmetric idioms (53%) than the symmetric ones (40%). Basically, production was only possible after comprehension. Nevertheless, two children and one adult were able to make acceptable sentences without proper understanding of some transparent idioms. The researchers conjectured that the sentences came from rote memory or just happened to be right. On the other hand, the symmetry effect turned out to be marginal for CFL learners, but the interactive effect of symmetry and transparency was surprisingly significant. Within the big symmetric and asymmetric groups, TS and OA idioms were easier in forced-choice interpretation. The researchers supposed that since structural symmetry was unique to Chinese idioms, the foreign learners might not have developed the linguistic competence in analyzing the internal structure and realized the syntactic and semantic connections between components of Chinese QIEs, especially of opaque QIEs.

Discussion

The aforementioned studies on structural effects are summarized in Table 2-2. The symmetry effect denoting easier comprehension for symmetric QIEs has been proved in lexical retrieval (Lin & Xing 2000), in identification and re-recognition (Huang et al. 1999), and in forced-choice interpretation (Liu & Cheung 2014). The consensus is built upon data of mature Chinese native speakers and upon preadolescence at age 11 (Liu & Cheung 2014), but there is no systematic study on the symmetry effect in children's development of QIE comprehension.

Table 2-2. Comparison between idiom studies on structural effects

Study	Focus	Task Designs	Findings	Limitations
Liu et al. (2010)	Parts of speech in QIE comprehension	Violation paradigm: idiom decision on 4th character →ERP study (Section 2.3.1)	Accuracy: Con/Syn < Sem/Com RTs: Syn > Sem/Com (slightly) No ELAN => Semantic and contextual cues are keys. N400: Syn/Sem/Com P600: Syn > Sem/Com (slight) => Overlapping: Semantic processing may proceed and dominate in Chinese.	Do not cover the process of acquisition.
Huang et al. (1999)	Symmetry & Familiarity	-Identification -Re-recognition	Symmetric idioms were easier in both tasks. Familiar idioms were easier in identification.	Do not cover the process of acquisition.
Liu & Xing (2000)	35,758 QIE dictionary entries	Lexical retrieval →ERP study	Around 40% had symmetry. Symmetric idioms were easier to understand.	Do not cover the process of acquisition.
Liu & Cheung (2014)	Symmetry & Transparency (age 11, adults)	-Sentence production -Interpretation	Symmetric idioms were easier in interpretation. Children had trouble interpreting OA idioms. Children made more good sentences with A idioms.	Treat children as a whole. Do not look into their progress.
Liu & Yao (2017)	Symmetry & Transparency (CFL learners)	-Interpretation -Questionnaire	No symmetry effect. Interactive effect: TS/OA idioms were easier.	(L2 study)

Note: In the second row, “RTs” stands for reaction times.
In the second row from the bottom, “A idioms” refer to asymmetric QIEs.

Aside from the incoherent cross-sectional research, inter-group difference exists in the big symmetric and asymmetric idiom types in Liu and Cheung's (2014) study. The researchers observe that children make more correct sentences with asymmetric than symmetric idioms. Yet apart from the even accuracy in opaque idiom types (OS mean 1.2, OA mean 1.1), children do better on TA idioms than TS idioms (mean accuracy 5.2 and 3.6 each). The problem is that TA idioms are generally more transparent than TS idioms[15]. Another defect is the conflicting results. Liu and Yao (2017) examine the interactive effect of symmetry and transparency and perceive that TS and OA idioms are easier for foreigners in interpretation. This finding contradicts Liu and Cheung's (2014) in that OA idioms are the hardest for children in an identical interpretation. The discrepancy may ascribe to fundamental difference between L1 and L2 acquisition, the rationality of categorization and selection of test materials, and the clarity of test questions (cf. Section 2.2.2). Liu and Yao (2017) do not go into details about their materials. It is highly likely that they follow suit of the methodology of Liu's previous study with Cheung in 2014 on native speakers. Since the due control group of native speakers is unspecified, the clarity issue of whether the three choices for idiom interpretation are distinct enough cannot be guaranteed.

Despite dubious effects, structural symmetry is not a complete nullifier. The symmetric structure can at least facilitate Chinese idiom comprehension for preadolescence even though their perception for structural symmetry seems to be different from the adults' in production (Liu & Cheung 2014). To unravel the symmetry effect, research on the developmental process of Chinese QIE comprehension should be conducted on careful material selection and categorization and on children at different ages along preadolescent years. A

[15] The item with a mean transparency rating of 1.26 is the second most opaque idiom in the TA type, but the same rating points to the most transparent item in the TS type.

2.4 The Contextual Issue of Idioms

The sentential context in (8) and (9) gives out a rough sketch of the emotional implications behind the underlined Chinese quadra-syllabic idioms.

(8) *Tade shouyi jingzhan, yijing dadao le lu-huo-chun-qing de jingjie*.
his handicraft exquisite, already reach LE stove-fire-pure-blue DE realm.
'His handicraft is so exquisite, to the realm of perfection.'

(9) *Ta shenme ye buhui, zhishi yige xiu-hua-zhen-tou*.
she anything also incapable, only one embroidered-pillow.
'She can do nothing, but be beautiful.'

The words preceding the Chinese idiom tell that the man in (8) is a skillful craftsman, and that the woman in (9) is incompetent of anything. Based on the information, it can be inferred that the idiom in (8) is likely to be praise while the one in (9) is criticism. In a word, the context prepares readers with what to expect from the upcoming idiom. Next, Section 2.4.1 expounds the concept of context and its functions; Section 2.4.2 explores how context is applied in idiom studies.

2.4.1 The Concept of Context and Its Functions

The concept of context originated from Polish anthropologist B. Malinowski's thought in 1923[16] that a message brought much more meanings than what the words expressed, in particular meanings that could only be understood within certain situation. Influenced by Malinowski, J. R. Firth extended the notion of "context of situation" (i.e., meaning by environment of the text) to linguistics in the 1950s. He claimed that the context of situation was an abstract representation of the environment with certain general categories relevant to a text (Firth & Palmer 1968). Lyons (1977)

[16] The 10th edition of Malinowski's original work was published in 1972.

defined context as “a theoretical construct, … which … systematically determined the form, the appropriateness or the meaning of utterances” (p.572). Hu (2002) classified context into three categories as in (10a–c):

(10) a. Linguistic context was “the accompanying context within a text”.
b. Situational context referred to “some factors outside the text, including the relationship of participants, their communicative intention and the environment where the utterance occurs”.
c. Cultural context denoted “the speech community in which the speaker lives, including the custom and social culture”. (Hu 2002: 78)

“Language comprehension involves activating word meanings and integrating them with the sentence context.” (Rommers, Dijkstra & Bastiaansen 2013: 762) By semantic integration, context can bring about specific semantic expectations, that is, expectations for the semantic category of the upcoming linguistic units (Federmeier & Kutas 1999, Federmeier 2007). The sentence in (8) associates *lu-huo-chun-qing* with semantic categories of “handicraft” and “exquisite”, instead of “alchemy” and “heat”; therefore, the context eliminates ambiguities in Chinese QIE comprehension. On the other hand, the sentence in (9) connotes negative comment of ‘can do nothing’, so *xiu-hua-zhen-tou* ought to be interpreted in a derogatory sense. The context creates the emotional atmosphere that is conductive to understanding the strong affective implications of Chinese QIEs; alternatively, it informs speakers of the idioms’ positive, neutral, or negative reading. For *xiu-hua-zhen-tou*, the emphasis is on the unspoken consensus of the uselessness of the referent rather than the beautiful surface. Similar to *jin-yu-qi-wai* ‘being beautiful on the outside but the inside already corrupts’, the context supplies the omitted information to the message receiver and facilitates comprehension.

In light of semantic integration, researchers have debated on its starting point, whether it begins from the inside or outside of idioms. Some contended that semantic integration operated with literal analysis of idioms' component words (Swinney & Cutler 1979, Cutting & Bock 1997, Sprenger, Levelt & Kempen 2006); others argued for an operation outside idioms (Bobrow & Bell 1973, Gibbs 1986, Cacciari & Tabossi 1988). No matter how they believed, evidence from their experiments has substantiated the functions of context on idiom processing in native speakers. Bobrow and Bell (1973) unfolded that, by self-reports, more participants first thought of the idiomatic meaning as reading idiomatic sentences, whereas fewer people perceived so as reading literal sentences. Gibbs (1986) revealed that participants reacted faster to idiomatic sentences in classification judgment after a biasing story context. Cacciari and Tabossi (1988) also noticed that in face of neutral sentential contexts, participants responded slower to idiomatic targets in cross-model lexical priming[17], that is, they spent more time activating the idiomatic meaning than the literal meaning in neutral context. Additionally, Giora (1999, 2002) observed, in familiar idiom processing, almost an exclusive activation of the idiomatic reading in figurative biasing contexts because of its more salient status and status as the intended meaning. However, the idiomatic reading then gave way to the literal reading in literal biasing contexts, owing to being contextually more appropriate yet less salient. All in all, different context facilitated comprehension of different meanings, and the context effect is so powerful that it works in various kinds of tasks.

[17] This kind of experiment abides by a distinctive course in that "the [visual] probes for lexical decision are presented at various points during the presentation of the auditory sentence, depending on the experimental focus" (Cieslicka 2006: 122), and the assumption behind is that automatic priming and consequent facilitation of a lexical decision only manifest at visual stimuli associated with the meaning having been accessed from auditory input.

2.4.2 Empirical Studies on Contextual Support

The current study designates figurative short stories and illustrative pictures as contextual support, and the two devices belong to the category of linguistic context. Therefore, this section first lays out the research designs and findings of Rommers, Dijkstra, and Bastiaansen's (2013) study on biased sentential contexts, of Hsieh and Hsu's (2010) study on biased short-story and pictorial contexts, and of Li's (2016) study on the presence and absence of short-paragraph context. Then, it makes a discussion on the context effects at the end.

Rommers, Dijkstra, and Bastiaansen's (2013) ERP study

Rommers, Dijkstra, and Bastiaansen (2013) examined the effect of sentential context on opaque idiom processing. They hypothesized that operations of activating and integrating literal word meanings were unnecessary for comprehending opaque Dutch idioms, because the literal word meanings were unrelated to the overall idiomatic meaning as in (11a). Their participants read two types of equally predictable sentential contexts, literal and idiomatic, in three conditions as in (11a–c), and the target word was the penultimate noun in literal and idiomatic sentences.

(11) a. Correct condition (COR): *tegen de <u>lamp</u> lopen*
against the <u>lamp</u> walk
'to get caught'
b. Related condition (REL): **tegen de <u>kaars</u> lopen* 'candle'
c. Unrelated condition (UNREL): **tegen de <u>vis</u> lopen* 'fish'
(Rommers, Dijkstra & Bastiaansen 2013:765)

The COR condition had a correct and expected noun[18], such as *lamp* 'lamp' in (11a). The REL condition had a semantically related noun but not the expected one, as *kaars*

[18] The COR word did not actually appear in the REL and UNREL condition, only predictable from the sentence; hence, the activation of literal word meanings in both conditions relied on context alone.

'candle' in (11b). The UNREL condition owned a semantically unrelated noun, as *vis* 'fish' in (11c). Pretests were carried out for guarantee of the familiarity and opaqueness of the experimental idioms, the word frequency and co-occurrence frequency of the targets, the even cloze probability of COR targets in both contexts and improbability of the REL and UNREL targets, and finally the unlikelihood and plausibility of the REL and UNREL targets in sentential contexts. Eventually, ninety sets of six sentences formed the crucial materials. Forty-eight undergraduate native speakers of Dutch took part in formal experiments. Half performed lexical decision on the targets, and the other with their EEG recorded along just read for comprehension. The sentential contexts were presented word-by-word with the target in red color.

The response time data of Rommers, Dijkstra, and Bastiaansen (2013) manifested that literal sentential contexts activated literal word meanings and thus offered semantic facilitation in lexical decision. Literal contexts also induced a reduced N400[19] for semantic relevancies than irrelevancies as well as a more salient power increase in the gamma frequency band[20] at COR than REL and UNREL words. This meant that in literal contexts relevant words required less energy in word retrieval and integration processes, whereas correct words called for more energy in semantic integration. Contrary to the literal contexts, the same manipulations yielded none of these effects in the idiomatic contexts. Instead, a late posterior positivity (P600) was observed for semantic violations (i.e., the REL and UNREL words) in idiomatic sentences, and the gamma band power was lower in correct idioms than in correct literal sentences. The evidence indicated that activation of literal word meanings or semantic integration or both were less

[19] The N400 component indexed word retrieval and semantic integration processes (Kutas & Federmeier 2011, Lau, Phillips & Poeppel 2008).

[20] The power increase varied with the relationships between the expected words and the presented targets. It indexed semantic integration and therefore would be disrupted by semantic violations (Peña & Melloni 2012, Urrutia, de Vega & Bastiaansen 2012, Wang, Zhu & Bastiaansen 2012).

involved in idioms. Which was interpreted as a lack of “semantic expectancy”, the expectations for upcoming words (Rommers, Dijkstra & Bastiaansen 2013:765), in idiom comprehension and as an absence of semantic integration in the first place even in cases of normal idiomatic sentence strings. Since literal word meaning activation stemmed primarily from the bottom-up processing approach, that is, from words actually presented in and constituting the real-world discourse; top-down contextual expectations, otherwise, might be insufficient for eliciting measurable literal word meaning activation during idiom comprehension. The P600 effect was observed for violation conditions in idioms only. This implied that idioms might, at some level of representations, be recognized as a unit, like lexical items, and that the P600 effect in fact responded to the form violations within lexical items.

In summary, the behavioral, ERP, and time-frequency data of Rommers, Dijkstra, and Bastiaansen (2013) converged onto the same view that semantic processing diverged in literal language and idioms. The (pre)activation and integration of word meanings relied on sentence contexts. When reading opaque idioms, the context rendered these two operations unnecessary. As a consequence, the word activation and integration operations could, to some extent, be “switched off” (Rommers, Dijkstra & Bastiaansen 2013:775). The results further lent support to models of unitary idiom representations.

Hsieh and Hsu’s (2010) study

Hsieh and Hsu (2010) looked into the role of literal and figurative contexts and linguistic convention in the acquisition of Chinese idioms. Hsieh and Hsu (2010) defined “linguistic convention” in a narrow sense as “the arbitrary link between the linguistic form and its meaning in the idiomatic expression” (p.506) and employed combined short stories and pictures as the biasing contexts. Three groups of Mandarin

speakers (i.e., the 6-year-olds, 9-year-olds, and adults) were recruited to complete a word-card task and a picture-selection task followed by meta-pragmatic task, and the participants' comprehension on 14 Chinese idiomatic phrases, such as (12a–c), in literal and figurative contexts were under analysis.

(12) a. *ping-guo-lian* 蘋果臉
apple -face 'rosy cheeks like an apple'
b. *xin-hua-duo-duo-kai* 心花朵朵開
heart-flower-each-open 'to be extra delighted and joyful'
c. *luo-ye-gui-gen* 落葉歸根
fall-leaf-return-root 'what comes from the soil will return to the soil'
(Hsieh & Hsu 2010:509)

Hsieh and Hsu (2010) found that figurative rather than literal context facilitated idiom comprehension by all age groups, and that all participants depended more on the figurative context than the literal meaning to comprehend idioms. The positive context effect was inversely related to age. The effect of linguistic convention emerged at age 6, and it reached significance at age 9. Children at age 6 or under were able to use their meta-pragmatic knowledge to understand Chinese idioms.

Li's (2016) CFL study

Li (2016) made an inquiry into the influence of short-paragraph context on three types of Chinese colloquial idioms, which differ in the degree of similarity to idioms in the CFL learners' native languages, as in (13a–c).

(13) a. *po-leng-shui* 潑冷水 'to pour cold water' (matching)
b. *xiao-dao-xiao-xi* 小道消息 'news from a small source'
(partially matching *word on the street*)
c. *pai-ma-pi* 拍馬屁 'to pat a horse's butt'
(not matching *to polish the apple*) (Li 2016:55)

Li (2016) collected CFL learners' Think-aloud reports in order to find out the comprehension strategies involved as they attempted for the idiomatic meaning in isolation and in a short-paragraph context. The contexts met the requirement of being naturally written Chinese texts, longer than one sentence, appropriate for CFL learners' understanding in terms of character, vocabulary, and grammar, and that target idioms were underlined and occurred once in each short paragraph. On average, the context consisted of 49.3 characters and 2.4 sentences.

Li's (2016) results revealed that contextual information considerably facilitated idiom comprehension, especially for the semi-familiar ones, and that different strategies were adopted in the decontextualized and contextualized tasks. In the decontextualized condition, CFL learners were prone to interpret the colloquial idioms by their literal use. Upon failure, they turned to L1 expressions, prior knowledge, familiar Chinese characters, wild guessing, and critical thinking for aid. Among which, literal analysis and association to L1 expressions were the most popular. Opposed to this non-compositional view, the participants tended to rely on orthographic diagnosis[21] in guessing the idiomatic meaning, especially when the colloquial idioms stood in isolation. In contrast, a heuristic method involving a wide range of strategies was employed in the contextualized condition. The CFL learners attempted to formulate plausible interpretations and verified their attempts with the context afterwards. During the process, the most common strategies included analyzing component characters, translating contextual sentences, using background knowledge, and referring to L1 idioms. Among these strategies, the most effective ones were under the category of semantic processing and pre-existing knowledge[22]. In

[21] Orthographic strategies included analyzing of component words, looking for visually similar characters, making sound connections to other characters, and using radial knowledge.

[22] Semantic strategies included reading related words, translating contextual sentences, and repeating the target idiom; strategies of pre-existing knowledge included L1 knowledge and background information about the target language and culture.

short, the advanced CFL learners' favored "part-to-whole and literal-to-figurative" approach (Li 2016:81) in decontextualized setting while an experimental approach of prediction and verification was preferred in the contextualized setting. The two experimental stages constituted Li's newly proposed model for L2 idiom processing.

Discussion

The reviewed studies on the context effects are summarized in Table 2-3. Federmeier (2007) has asserted that context can bring about specific semantic integration: literal context activates the literal meaning while figurative context activates the idiomatic meaning. The different meaning activations have been demonstrated on comprehension of opaque Dutch idioms in biased sentential contexts (Rommers, Dijkstra & Bastiaansen 2013) and on comprehension of Chinese idiomatic phrases in biased short-story and pictorial contexts (Hsieh & Hsu 2010). Hsieh and Hsu (2010) proclaim that the positive context effect decreases with age, and that children (at ages 6 and 9) and mature speakers rely more on context than the literal meanings to understand idioms. Compatibly, Li (2016) proves the aid of context in CFL learners' idiom comprehension. Li (2016) points out that foreigners use a top-down experimental comprehension strategy of idiomatic meaning prediction and verification in contextualized condition, and that they use a bottom-up strategy of literal analysis in decontextualized idiom comprehension.

Table 2-3. Comparison between idiom studies on contextual support

Study	Focus	Task Designs	Findings	Limitations
R, D & B (2013)	Opaque Dutch idiom comprehension in literal and idiomatic sentential contexts	Lexical decision or Read for comprehension →ERP study	Literal context activated literal word meanings; thus, related words were easier than unrelated ones, idioms harder. Idiomatic context yielded none of the above results, thus helpful to idioms.	Do not cover the process of acquisition.
Hsieh & Hsu (2010)	Chinese idiomatic phrases in literal and figurative contexts of short stories with pictures (children at ages 6, 9 and adults)	- Word-card task - Picture selection	Literal context did not help idiom comprehension. Idiomatic context helped it by all age groups. Context was more helpful than literal meaning and inversely related to age. Linguistic convention started at age 6 and reached significance at 9. Age 6: meta-pragmatic knowledge for idioms	Do not examine the effect of textual context.
Li (2016)	Chinese colloquial idioms in and out of a short-paragraph context (CFL learners)	Think-aloud reports on comprehension strategies in and out of story context	Context helped much. D: "part-to-whole & literal-to-figurative" C: prediction ↓ (experimental) verification C: semantic processing and pre-existing knowledge were the most effective.	(L2 study)

Note: The first study is conducted by Rommers, Dijkstra and Bastiaansen in 2013.
In the third row, "D" and "C" refer to decontextualized/contextualized tasks.

Until now, no research has systematically explored the acquisition of Chinese QIEs. Hsieh and Hsu (2010) have studied Chinese idiom acquisition, but their tested idioms involve many idiom types, (12a–c) for instance. According to Li (2016), these idioms belong to different categories. The idioms *ping-guo-lian* and *xin-hua-duo-duo-kai* in (12a–b) are Chinese colloquial idioms, the meaning of which almost equals to the combined literal meaning of the components, whereas *luo-ye-gui-gen* in (12c) is a "highly synthetic and compact" (Liu & Cheung 2014:338) Chinese QIE. Li (2016) distinguishes between Chinese colloquial and quadra-syllabic idioms by their semantics, so the comprehension of these two idiom types should not be lumped together. To fix this confusion, the current study will focus merely on Chinese QIEs.

To cope with three factors – semantic transparency, structural symmetry, and contextual support – in one experiment, this study decides to follow suit of Li's (2016) study by testing Chinese QIE comprehension with and without contextual support. In this way, the internal analysis of idioms' semantic transparency and structural symmetry may not be overridden in the decontextualized condition by the top-down comprehension strategy used in a contextualized condition even if the context effect of combined stories and picture is very powerful. With reference to Hsieh and Hsu's (2010) study, the 6-year-olds and 9-year-olds are already able to understand figurative language; an interpretation task of QIEs with the aid of short-story context and illustrative pictures shall be suitable for the second-grade students (age 7).

2.5 Hypotheses of This Study

After review of abundant idiom studies, three sets of hypotheses are made on semantic transparency, structural symmetry, and contextual support to render children's QIE comprehension as in Figure 2-2.

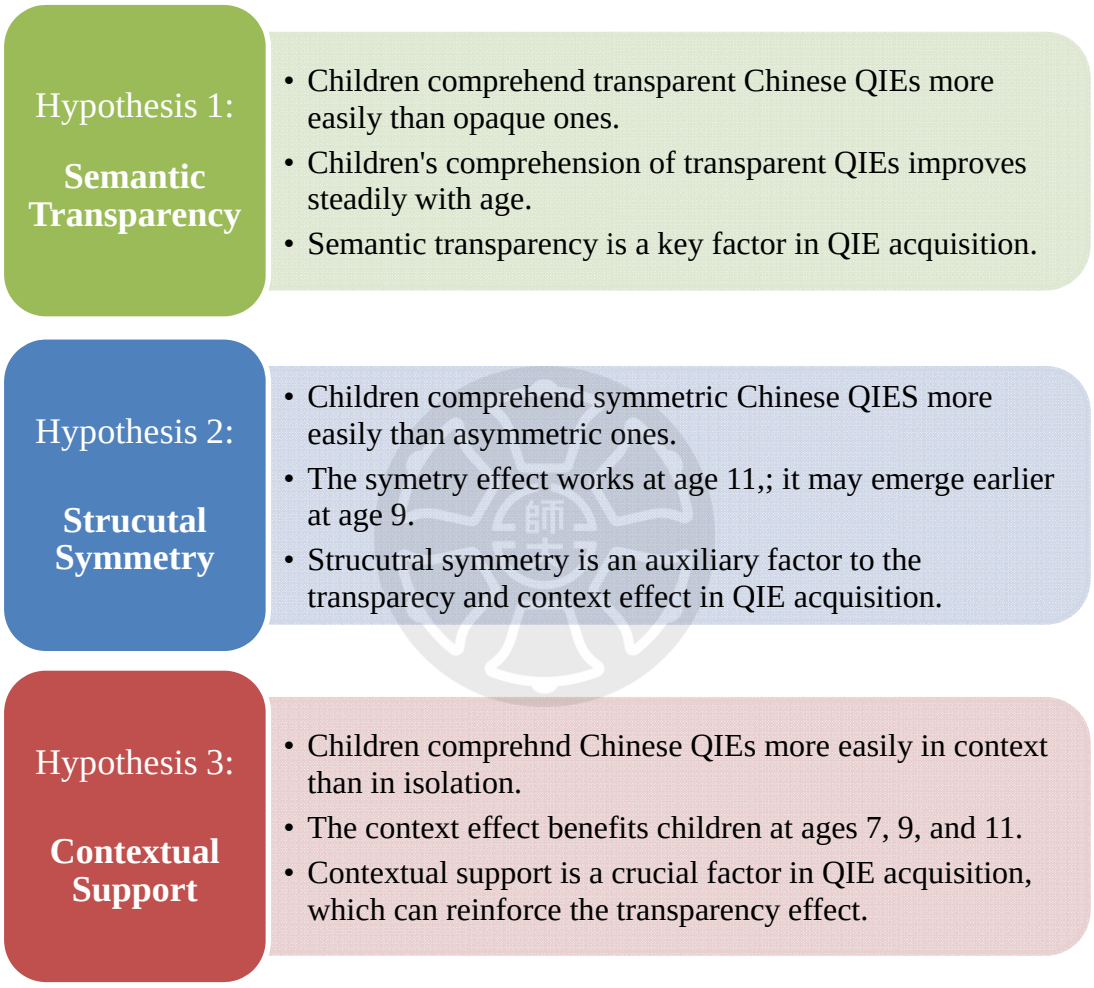


Figure 2-2. Hypotheses on transparency, symmetry, and context

First, it is hypothesized in (1a) that transparent quadra-syllabic idioms are much easier to comprehend than the opaque ones. This has already been proved on adults (Zhang et al.2013), and on both 11-year-old children and adults (Liu & Cheung 2014). As children grow up, it is assumed in (1b) that their comprehension on transparent QIEs develops steadily. The transparency effect is supposed as in (1c) to be the most influential factor in children's QIE comprehension, because semantic processing dominates in Chinese language comprehension (Liu et al. 2010), and also because comprehending highly transparent QIEs requires only the fundamental form-level processing, that is, simply character recognition (Zhang et al 2013).

Second, it is hypothesized in (2a) that symmetric quadra-syllabic idioms are easier to comprehend than the asymmetric ones. Huang et al. (1999) and Lin and Xing (2000) have testified that similar or opposite meanings expressed by the two symmetric halves can reinforce semantic understanding of QIEs or facilitate it by making contrast. Liu and Cheung (2014) have, likewise, observed that 11-year-old children have trouble interpreting (opaque) asymmetric idioms. Thus, it is assumed in (2b) that the sixth graders benefit from the symmetric structure, and that the symmetry effect may emerge earlier at the fourth grade. The emergence is unlikely to happen at the second grade because the 7-year-ods are too young to notice and analyze the internal structure of QIEs. The symmetry effect is supposed as in (2c) to be an auxiliary factor in children's QIE comprehension. As Liu et al. (2010) assert, semantic processing overrides structural analysis in Chinese. Moreover, Nippold and Duthie (2003) postulate that beyond exposure and contextual support, learners try to search for meaning from the internal structure of the idioms.

Third, it is hypothesized in (3a) that Chinese QIEs are much easier to comprehend within supporting context than in isolation. Rommers, Dijkstra and Bastiaansen (2013) have confirmed that context substantially improves opaque Dutch idiom comprehension, and their findings can be extended to the comprehension of highly concise Chinese QIEs. Similarly, Hsieh and Hsu (2010) and Li (2016) have verified the context effect respectively on six-year-old and nine-year-old children's comprehension of idiomatic phrases and on L2 learners' comprehension of colloquial idioms[23]. Based on their findings, it is presumed in (3b) that supportive context enhances QIE comprehension regardless of speakers' age. In addition, supportive context is expected to strengthen the transparency effect as in (3c). Zhang et al. (2013) find that with supportive context comprehending transparent QIEs becomes easier, for the synchronic semantic integration within QIEs and between them and surrounding context accelerate the comprehension process. Rommers, Dijkstra and Bastiaansen (2013) also suggest that the more opaque idioms are, the more important the context's role is in idiom comprehension. Liu et al. (2010) further argue that since Chinese has no morpheme, language comprehension relies heavily on contextual information. As a result, supportive context is supposed to be another crucial factor in Chinese QIE comprehension as in (3c).

Interactive effects between age and the three factors above are expected as well. Yet, because of their complexity, I am not going to recite the interactions one by one here, but rather leave them to statistical analysis and discuss the significant effects in Chapter Four.

[23] Test items of both studies adopt other types of Chinese idioms, not QIEs, see Section 2.4.2.

2.6 Summary of Chapter Two

The current study focuses on three factors — semantic transparency, structural symmetry, and contextual support — in the comprehension of Chinese quadra-syllabic idioms along children's figurative language development. In Section 2.1, I have looked back on the non-compositional, compositional, and hybrid perspectives on idioms. In Section 2.2, I have examined semantic taxonomies of idioms from subjective categorization to objective ratings and discussed the transparency effect in studies of Chinese QIEs. In Section 2.3, I have discussed the functions of structural flexibility and symmetry on Chinese QIEs. Then, in Section 2.4, I have reviewed the concept of context and discussed the effect of different contextual support in idiom studies. Last but not least, I have hypothesized the transparency, symmetry, and context effect on children's QIE comprehension in Section 2.5.

Chapter Three
Research Design

This chapter presents the research design of the study. Section 3.1 informs about the recruitment of participants. Section 3.2 lays out the experimental materials and the two tasks. Section 3.3 narrates the procedures of the pilot, the formal study as well as the measures of data analysis. Section 3.4 summarizes the chapter.

3.1 Participants

To investigate the development of children's comprehension of Chinese quadra-syllabic idioms, this study recruited 20 children at the second, fourth and sixth grades respectively as well as 20 undergraduates as control, as shown in Table 3-1. The second graders averaged 7-years-old, the fourth graders 9-years-old, the sixth graders 11-years-old, and the averaged 20-years-old undergraduates acted as the mature speakers. Generalizations drawn from this synchronic cross-sectional study could emulate the diachronic process of QIE acquisition.

In terms of recruitment, all participants were native speakers of Mandarin Chinese educated in Taiwan. The children went to a public elementary school in Xinzhuang District, New Taipei City, and the mature speakers studied in different colleges of National Taiwan Normal University in Taipei. All of them were healthy people with normal or corrected-to-normal vision and did not have learning disability or dyslexia.

Table 3-1. Information of the participants

	Experimental Group			Control Group
Participants	2nd graders	4th graders	6th graders	Undergraduates
Mean Age & Range	mean 7.9 (7.2 to 8.9)	mean 9.9 (9.2 to 10.1)	mean 11.8 (11.2 to 12.0)	mean 20.1 (17.11 to 25.2)
Number	20	20	20	20
Gender	M = 12 F = 8	M = 9 F = 11	M = 6 F = 14	M = 5 F = 15

Note: In the Age row, the figures prior to and after the decimal point indicate the years and months of age. For instance, 7.9 represents the age of 7 years and 9 months. In the Gender row, M and F each indicate male and female.

According to Zhang et al.'s (2013) idiom processing model (cf. Section 2.2.2), comprehension of Chinese QIEs entailed character recognition, simultaneous preliminary meaning retrieval, and later semantic integration with context. The second graders had already learned the Chinese characters for at least one year and had started writing, so they were competent to recognize basic component characters in the selected QIEs and understand simple sentences in short-story context. Besides, Nippold's metasemantic theory (Nippold 1998) identified preadolescence as a soaring stage of figurative language development (cf. Section 2.2.2). The sixth graders were just at the end of childhood and about to enter adolescence. Namely, the elementary school children belonged to preadolescence, when figurative understanding was in rapid growth. The distance of one grade ensured clear grouping.

3.2 Tasks and Materials

To figure out the effects of semantic transparency, structural symmetry, and context on Chinese idiom comprehension, this study selected transparent and opaque, compatibly symmetric and asymmetric, Chinese quadra-syllabic idioms as core experimental materials. The four idiom types each contained four QIEs, and the total of 16 idioms was tested in turn in decontextualized and contextualized force-choice interpretation tasks (abbreviated as DIT and CIT). The idiom types are demonstrated in Table 3-2. The stages of material selection are explicated in Section 3.3.2.

Table 3-2. Types of idioms used in the two tasks

		Type	Example	No.	DIT	CIT
I	A	Transparent symmetric idioms (TS)	*xin-ping-qi-he* 心平氣和 ‘being calm and peaceful, getting along well with people’	4	Q1 Q5 Q10 Q16	Q17 Q19 Q24 Q27
	B	Transparent asymmetric idioms (TA)	*nian-nian-bu-wang* 念念不忘 ‘to bear in mind constantly’	4	Q3 Q6 Q9 Q13	Q18 Q21 Q29 Q32
II	A	Opaque symmetric idioms (OS)	*feng-hua-xue-yue* 風花雪月 ‘love affairs’	4	Q2 Q8 Q11 Q14	Q23 Q26 Q28 Q30
	B	Opaque asymmetric idioms (OA)	*jie-wai-sheng-zhi* 節外生枝 ‘to cause complications or new problems’	4	Q4 Q7 Q12 Q15	Q20 Q22 Q25 Q31
			Total	**16**	**16**	**16**

Note: The two rightmost columns list question numbers in the DIT and CIT.
To see a full list of tested idioms, please refer to Appendix C.

3.2.1 The Decontextualized Interpretation Task (DIT)

In the DIT, participants saw a Chinese QIE appear in both characters and *zhuyin* (phonetic symbols) alone on the PPT slide. Concurrently, they heard two interpretations of the idiom and were instructed to choose from the two interpretations. One was the idiomatic reading of QIEs, and the other was the literal reading. Participants were expected to choose the idiomatic reading and wrote down their response (either A or B) on the answer sheet. The percentage of expected A and B responses were equal. This task covered 16 QIEs in random sequence. An example question for decontextualized *xin-ping-qi-he* (TS idiom) is displayed in Table 3-3.

Table 3-3. An example question used in the DIT

What the participants saw on the slide	心ㄒㄧㄣ平ㄆㄧㄥ氣ㄑㄧˋ和ㄏㄜˊ
What the participants heard at the same time	Q16: *Qingwen "xin-ping-qi-he" shi sheme yisi ne?* 'What does *xin-ping-qi-he* mean? ' (A) *Xinqing pingjing, heren haohao xiangchu.* (idiomatic reading) 'Be calm and get along well with people.' (B) *Xintiao pingshun, huxi huanman.* (literal reading) 'Smooth heartbeat and slow breathing.'
Expected answer	A

Note: All the test items in the DIT are presented in Appendix E.

3.2.2 The Contextualized Interpretation Task (CIT)

In the CIT, participants heard a short story containing one Chinese QIE and, meanwhile, saw an illustration of the story on the slide. Next, they read the QIE on the slide and were instructed to do the same forced-choice interpretation and then to write their choice on the answer sheet. Again, the percentage of expected A and B responses were equal, and 16 Chinese QIEs were sequenced randomly. An example question for contextualized *xin-ping-qi-he* (TS idiom) is exhibited in Table 3-4.

The contextual support in the CIT involved both short-story and pictorial contexts. The consecutive stories had three main characters — *Xiaobai*, *Xiaohuang*, and *Dahei* — and were created to elicit the idiomatic interpretation of QIEs. A short story was embedded with one Chinese QIE, which occurred at the end or at least near the end of the context. Each story was composed of roughly fifty characters in simple sentence structure and did not go beyond this range for the sake of the second graders' comprehension. As for pictures, they accompanied the stories, illustrated the plots, but did not relate directly to QIEs' either interpretation. In this case, the illustrations would not exert an extra effect on the interpretation of QIEs.

Table 3-4. An example question used in the CIT

What the participants first saw on the slide	
What the participants heard at the same time	*Jindan bujian le! Xiaobai shengqidi he Xiaohuang chaojia. Houlai, Xiaohuang bangmang zhaodao jindan, tamen hehao le, hai xin-ping-qi-he-di yiqi chi jindan.* 'The golden egg was gone! Xiaobai angrily quarreled with Xiaohuang. Later, Xiaohuang helped her find the egg, so they were reconciled and ate the golden egg together in peace.
What the participants next saw on the slide	心ㄒㄧㄣ平ㄆㄧㄥˊ氣ㄑㄧˋ和ㄏㄜˊ
What the participants heard at the same time	Q24: *Qingwen "xin-ping-qi-he" shi sheme yisi ne?* 'What does *xin-ping-qi-he* mean? ' (A) *Xintiao pingshun, huxi huanman.* (literal reading) 'Smooth heartbeat and slow breathing.' (B) *Xinqing pingjing, heren haohao xiangchu.* (idiomatic reading) 'Be calm and get along well with people.'
Expected answer	B

Note: All the test items in the CIT are presented in Appendix F.

3.3 Procedures

This section describes the procedures of the pilot in Section 3.3.1, the formal study in Section 3.3.2, and of data analysis in Section 3.3.3. The formal study has been improved based on the experience of the pilot.

3.3.1 Pilot study

The pilot study recruited 5 participants for each group (20 in total) and selected 2 Chinese QIEs for each type (8 in total) from Liu and Cheung's (2014) study. All the participants did the DIT and then CIT. The DIT was the same as proposed in Section 3.2.1, but the CIT was different. It was a sentence completion that provided participants with two options of Chinese QIEs. The behavioral data of the pilot (mean response accuracy, cf. Appendix H) confirmed the hypotheses of this study. Transparent idioms were easier than opaque ones, and the transparency effect was evident in the fourth and sixth graders' performances. Symmetric idioms were easier than asymmetric ones, yet the symmetry effect was only evident in the fourth graders' performance. Contextual support was beneficial to idiom comprehension regardless of age, and the context effect was the most evident in the sixth graders' performance. Along the developmental process, the second graders relied most heavily on contextual support. The fourth graders depended more heavily on semantic transparency and next on structural symmetry, compared with the other groups. The sixth graders counted evenly on transparency and context. In short, semantic transparency was the most influential factor in Chinese QIE comprehension, secondly context, and last but not least the symmetric structure.

In addition to verification of hypotheses, the pilot offered practical suggestions to the formal study. First, the difficulty level of component characters had to be controlled. Some component characters in QIEs surpassed the second graders' knowledge; consequently, their accuracy approached the chance level in the pilot. To be more specific, their accuracy for decontextualized QIEs accounted for a poor 47.5%. To refine the design, the formal study would adopt Chinese QIEs of only basic characters. Another possible reason for low accuracy lay in the presentation of test questions. Although the visually-presented QIEs coexisted with *zhuyin*, they were still in written form. Consider that the second graders had just started learning characters. All the stimuli needed to be audio-recorded in the formal study. Still another improvement could be supplying pictures. An illustration of the textual context could enhance young children's comprehension of the auditory sentences, especially when their idiom comprehension depended almost entirely on context. To manifest the context effect uniquely, identical task design except for the variable of context should be implemented in both DIT and CIT, so the formal CIT would be a forced-choice interpretation.

3.3.2 Formal study

This section explicates material selection, instruments, and task procedures.

Stages of material selection

Before the experiment, pretests were conducted to select and categorize the experimental Chinese QIEs fairly and squarely. The selection involved a character filter, transparency ratings, an evaluation of structure, and a final check with children's teachers, as portrayed in Figure 3-1.

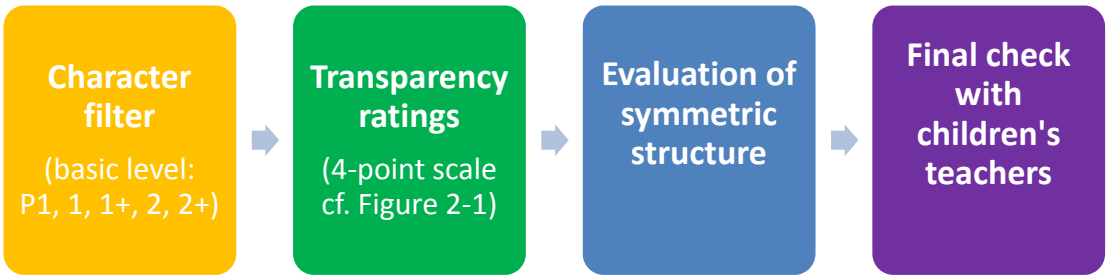


Figure 3-1. Stages of material selection

The initial list of idioms came from *Chengyu Cidian* (Dictionary of Chinese QIEs) (2000). With regard to the second graders' literacy, the initial idioms should be made up of only basic characters (cf. Appendix I). The difficulty level of all component characters were filtered according to the character list *Hanzi Fenji Biaozhun Jiansuo Xitong*[1] (Chinese Character Grading Standard Retrieval System), established by National Academy for Educational Research (NAER). Those graded the basic level of P1, 1, 1+, 2, and 2+ were picked out.

The "basic" QIEs then had their semantic transparency evaluated by five undergraduate native speakers (exclusive of the control group) on a four-point Likert scale (1 = very transparent, 2 = transparent, 3 = opaque, and 4 = very opaque). The neglect of "a neutral choice" avoided all indifferent responses. The transparent QIEs were the ones whose ratings all fell on the transparent side of the continuum (majority on 1 point), and whose average dropped below 1.5. The opaque QIEs were the ones whose ratings fell on the medium but partial to the opaque side of the continuum, and whose average mostly exceeded 2.5. No highly opaque QIEs were chosen, for they

[1] The list classifies Chinese characters into basic, advanced, and proficient levels, and each level is further divided into more subtle classes. For example, the basic level includes subclasses of P1, 1, 1+, 2, 2+, 3, and 3+. The difficulty level of Chinese characters can be retrieved at this website: http://www.coct.naer.edu.tw/standsys/#characters

contained advanced characters or complex concepts unsuitable for the second graders. The overall transparency ratings for the transparent and opaque types read 1.1 and 2.6; the distance between was 1.5. The difference between the two types was significant ($p < 0.05$), while the difference within each types were not ($p > 0.05$, mean TS = TA = 1.1, OS = 2.55, OA = 2.6, cf. Appendix D). The categorization of the four idiom types was fair and even.

Additionally, the "basic" Chinese QIEs undertook an evaluation of structure by another five undergraduate native speakers (still exclusive of the control group). The symmetric QIEs needed to have syntactically identical fore and hind halves with either similar or opposite meanings, whereas the asymmetric QIEs did not have such parallels in syntax and semantics. Only QIEs with consistent symmetric and asymmetric evaluation passed this round. If the item number was insufficient, coordination was made to reach consensus upon certain QIEs.

Eventually, the final idiom list was checked again with the children's teachers so as to avoid unrecognizable characters and repetition in curriculum, namely, the instruction and frequency effect. In short, the experimental materials consisted of 4 Chinese QIEs under each the TS, TA, OS, and OA idiom types, that is, 16 items in total. For a complete list of test items, please refer to Appendix C.

Instruments

After a careful selection of materials, next come the requirements of instruments and task procedures. In view of the large subject number, the four participant groups performed the tasks separately in different classrooms. The classrooms were equipped with a computer, a projector, a projection curtain (at least 150 cm × 150 cm), and a broadcasting system. The visual stimuli (i.e., QIEs and pictorial context) were shown in the center of a projection curtain, one on one PowerPoint slide. The idioms were

presented in black complex characters of the font 60, and both idioms and pictures appeared on a white background. The auditory stimuli (i.e., QIEs, their two interpretations, and short-story context) were broadcasted concurrently and correspondingly.

Task procedures

To join in the experiment, participants had to sign a consent form (see Appendix G). Since elementary school students were juveniles, their consent form was delivered to their parents in advance. In the formal experiment, participants completed the DIT and then the CIT. The task procedures are displayed in Figure 3-2.

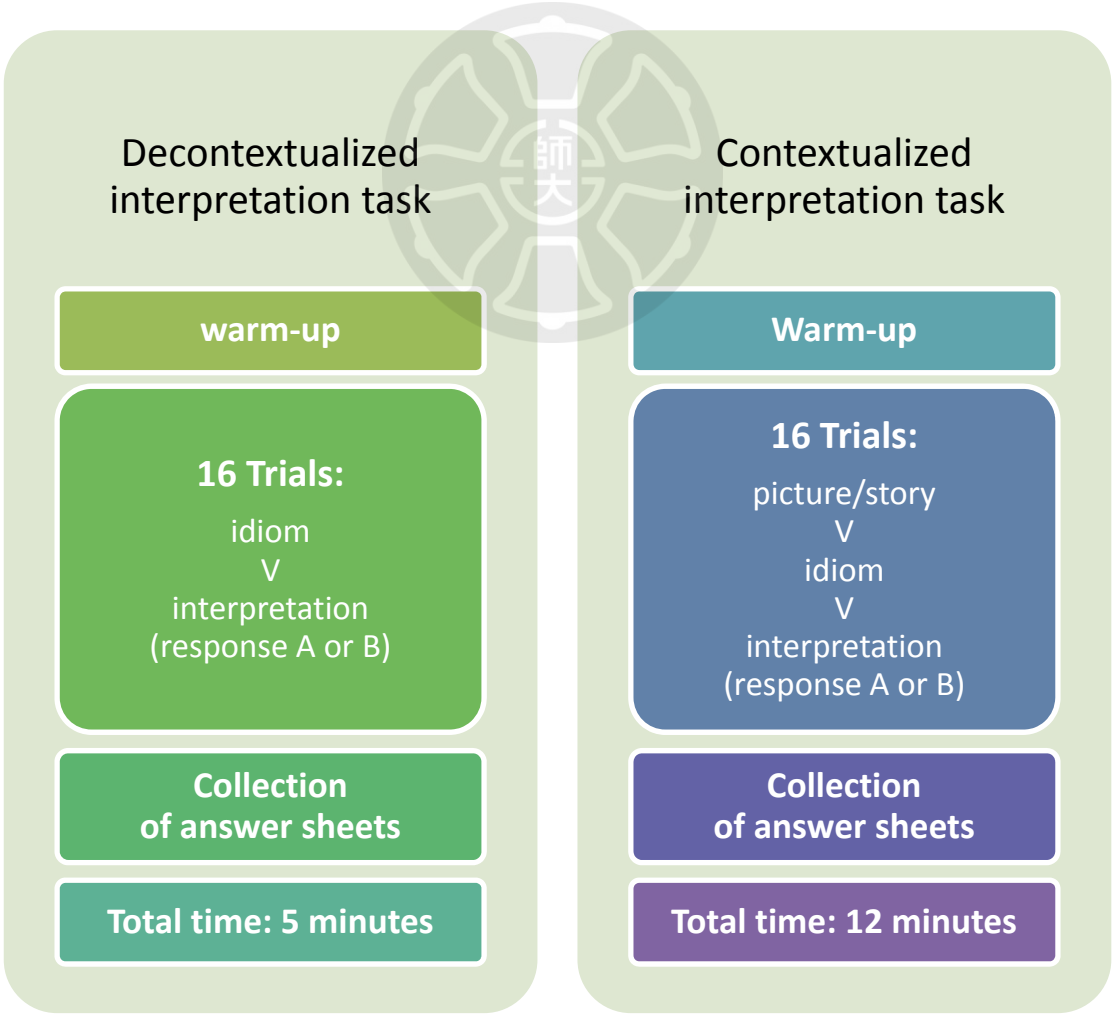


Figure 3-2. Task procedures

Each task began with a practice exercise, followed by 20 formal trials. A trial of DIT started with the presentation of one idiom, together with the auditory question. Each question as played once. As the question finished, the idiom remained on the slide for another 3 seconds. Participants were expected to write down their choice on the answer sheet in the meantime. Then, the next trial arrived. Similarly, a trial of CIT started with the presentation of the illustration together with the auditory story and then one idiom with two interpretations. Likewise, each question was played once, and participants made their choice in 3 seconds. The entire experiment (the DIT, CIT, instructions, and training session combined) took approximately 20 minutes. After the experiment, the answer sheets were collected for statistical analysis.

3.3.3 Scoring and Statistical Analysis

Each task contained 16 core trials. Each trial expected one correct idiomatic choice. Each correct choice received a point. Neither blank nor double choices were accepted. The perfect score for the DIT and CIT summed to 32 points. Response accuracy was calculated for each idiom type, each task condition, and each participant group. Specifically, the behavioral data (i.e., accuracy) were analyzed with semantic transparency (transparent or opaque), structural symmetry (symmetric or asymmetric), contextual support (contextualized or decontextualized), and age (2^{nd} graders, 4^{th} graders, 6^{th} graders, and adults) as the single factor. The data were then subjected to 2 $\times$ 2 $\times$ 2 $\times$ 4 repeated-measures ANOVAs to figure out the interactive effect of age, semantic transparency, structural symmetry, and context.

3.4 Summary of Chapter Three

An experiment on Taiwanese children's comprehension of Chinese quadra-syllabic idioms has been conducted to explore the transparency, symmetry, context, and age effects. Details of the research design have been disclosed in the chapter. In Section 3.1, I have specified the participants (both children and adults) and the reasons behind this recruitment. In Section 3.2, I have demonstrated the categories of test items and the contents of the two idiom interpretation tasks (DIT and CIT). In Section 3.3, I have stated the preparations and pretests for material selection, the procedures of a pilot and the formal experiment, and last but not least the measures of data analysis.

Chapter Four

Results and Discussion

This chapter shows the results of the experiment and discusses the findings. Section 4.1 to Section 4.4 each illustrate the effect of contextual support, structural symmetry, semantic transparency (in order of influence), and multi-factor interaction. Section 4.5 puts forward the developmental stages of children's comprehension of Chinese idioms. Section 4.6 summarizes the chapter.

4.1 The Main Effect of Contextual Support

The participants' response accuracy (means and SDs) in contextualized and decontextualized interpretation tasks are shown in Figure 4-1, and the *p*-values in Table 4-1 tell significant differences regarding contextual support. In Figure 4-1, the red line indicates the means of correct interpretation of Chinese idioms in context. It surpasses the pink line for that of interpretation in isolation at ages 7, 9, and 11, and the gap between the two lines shrinks with age. This expresses that the children understood Chinese quadra-syllabic idioms more easily in context than alone, and that their comprehension became less dependent on context as they grew up. The overall effect of contextual support reached a significance ($p < 0.001$***), in particular at ages 7 and 9 (means for CIT and DIT 0.82 vs. 0.68, $p < 0.001$***; means for CIT and DIT 0.92 vs. 0.84, $p < 0.01$**). The context effect declined significantly from ages 7 to 9 ($p < 0.001$***, $p < 0.01$**) and from ages 9 to 11 ($p < 0.01$**, $p > 0.05$).

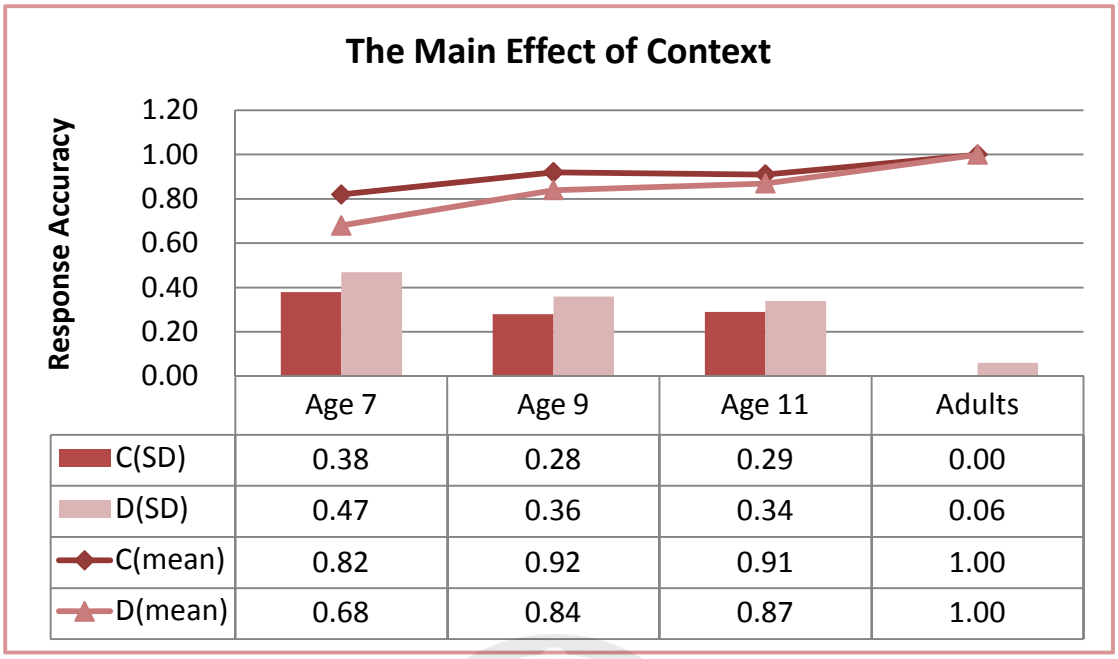


Figure 4-1. Accuracy of contextual support

Table 4-1. *P*-values for contextual support

D / **C**	Age 7	Age 9	Age 11	Adults
Age 7		0.000428***	0.00181**	5.55e-16***
Age 9	7.44e-07***		0.678	8.38e-08***
Age 11	5.69e-09***	0.368		1.43e-08***
Adults	<2e-16***	3.16e-13***	5.01e-11***	
C vs. D	2.44e-05***	0.00515**	0.134	0.318

Note: In the first columns, C and D each represent idioms in the CIT and DIT. The upper right corner presents between-group *p*-values within the contextualized condition while the bottom left presents *p*-values within the decontextualized condition. The last row shows between-type *p*-values within each age group. Asterisk (*) indicates significance of the effect. The more asterisks denote the more powerful the effect; lacking denotes marginal effect.

In contextualized condition, the children's QIE comprehension improved significantly from age 7 to age 9 (means 0.82 to 0.92, $p < 0.001$***), roughly retained at the same level at age 11 (means 0.92 to 0.91, $p > 0.05$), and then experienced another big increase to reach adult comprehension (means 0.91 to 1.00, $p < 0.001$***). [1] In decontextualized condition, the tendency of children's idiom comprehension was very similar. Their performance enhanced dramatically from age 7 to age 9 (means 0.68 to 0.84, $p < 0.001$***), maintained at age 11 (means 0.84 to 0.87, $p > 0.05$), and then improved again to reach perfect adult comprehension (means 0.87 to 1.00, $p < 0.001$***).

About distribution, greater individual difference manifested in decontextualized than contextualized condition alike. The maximal difference appeared at the second graders' responses (SDs for CIT and DIT 0.38 vs. 0.47) and then dwindled with age.

The behavioral data verify Hypotheses 3a and 3b (cf. Figure 2-2) in that supportive context facilitates QIE comprehension by all school-age children. The salutary main effect of figurative context (i.e., stories and illustrations combined) is compatible with that of sentential context (Rommers, Dijkstra & Bastiaansen 2013), of short-paragraph context (Li 2016), and of both short-story and pictorial contexts (Hsieh & Hsu 2010), see Section 2.4.2. The inverse relation between context and age conforms to Hsieh and Hsu's (2010) finding that figurative stories and pictures have positive effect on younger children' idiom comprehension, but their effect wears off with age. The CIT and Hsieh and Hsu's (2010) picture selection have been adjusted to fitting for the first and second graders' (ages 6 and 7) literacy and real-world knowledge; consequently, the tested idioms of both studies generally denote less complex concepts. Coping with less sophisticated QIEs, the sixth graders do not need

[1] The accuracy gap between ages 7 and 11 in CIT was still profound (mean 0.82 and 0.91, $p < 0.01$**); the same went for the gap between the 9-year-olds and adults (mean 0.92 and 1.00, $p < 0.001$***).

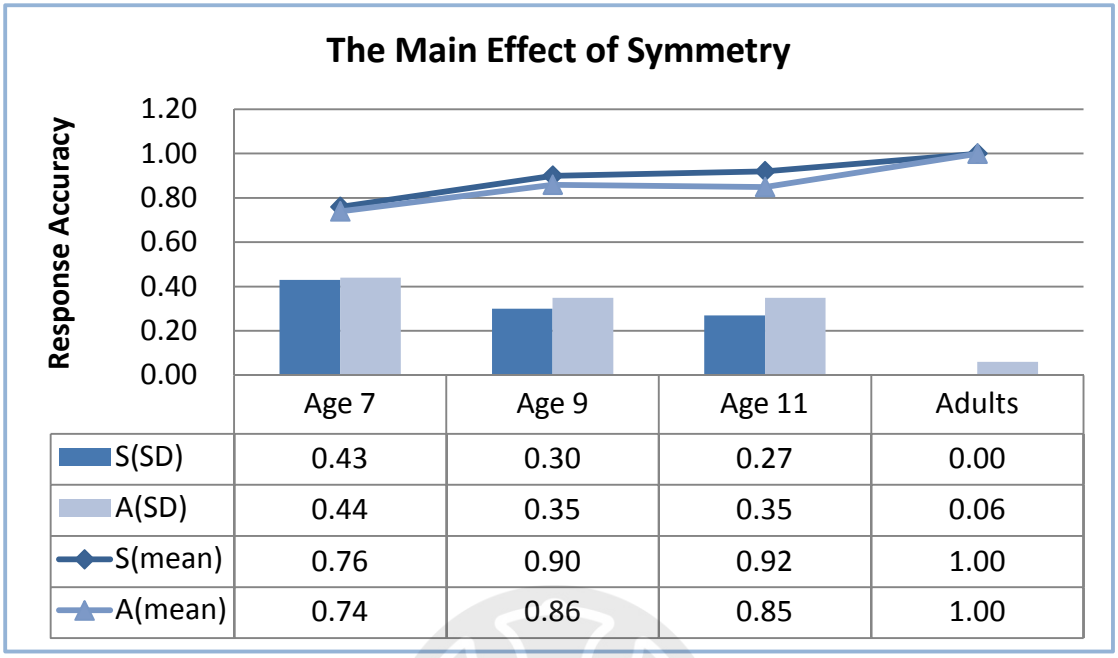
as much support from context to infer idiomatic meanings as their younger counterparts. That is, the sixth graders are competent to comprehend Chinese QIEs of simpler concepts in all basic characters without the help of supportive context.

4.2 The Main Effect of Structural Symmetry

The participants' response accuracy (means and SDs) for symmetric and asymmetric Chinese QIEs are shown in Figure 4-2, and the *p*-values in Table 4-2 tell significant differences regarding structural symmetry. In Figure 4-2, the blue line indicates the means of correct interpretation of symmetric idioms. It surpasses the light blue line for that of asymmetric idioms at ages 7, 9, and 11, and the gap between the two lines increases with age. This expresses that the children understood symmetric Chinese QIEs better than the asymmetric ones, and that their comprehension became more dependent on symmetry as they grew up. The overall effect of structural symmetry reached a significance ($p < 0.01$**), particularly at age 11 (means for symmetric and asymmetric idioms 0.92 vs. 0.85, $p < 0.01$**). The 11-year-old children were the only group that appreciably utilized the symmetric structure to interpret Chinese idioms.

Within the symmetric type, children's QIE comprehension improved significantly from age 7 to age 9 (means 0.76 to 0.90, $p < 0.001$***), hardly enhanced at age 11 (means 0.90 to 0.92, $p > 0.05$), and then experienced another big increase to reach adult comprehension (means 0.92 to 1.00, $p < 0.001$***). Similarly in the asymmetric type, children's comprehension improved dramatically from age 7 to age 9 (means 0.74 to 0.86, $p < 0.001$***), roughly maintained at age 11 (means 0.86 to 0.85, $p > 0.05$), and then made great progress to perfect adult comprehension (means

0.85 to 1.00, $p < 0.001$***).[2]



	Age 7	Age 9	Age 11	Adults
S(SD)	0.43	0.30	0.27	0.00
A(SD)	0.44	0.35	0.35	0.06
S(mean)	0.76	0.90	0.92	1.00
A(mean)	0.74	0.86	0.85	1.00

Figure 4-2. Accuracy of structural symmetry

Table 4-2. *P*-values for structural symmetry

A \ **S**	Age 7	Age 9	Age 11	Adults
Age 7		1.58e-06***	2.32e-08***	<2e-16***
Age 9	0.000179***		0.402	7.87e-09***
Age 11	0.000276***	0.911		2.7e-07***
Adults	<2e-16***	4.08e-12***	2.16e-12***	
S vs. A	0.466	0.0686	0.00587**	0.318

Note: In the first columns, S and A each represent symmetric and asymmetric idioms. The upper right corner presents between-group *p*-values within the symmetric type while the bottom left presents *p*-values within the asymmetric type. The last row shows between-type *p*-values within each age group.

[2] The accuracy gap between ages 7 and 11 in CIT was still strong (mean 0.74 and 0.85, $p < 0.001$***); the same went for the gap between the 9-year-olds and adults (mean 0.86 and 1.00, $p < 0.001$***).

In terms of distribution, children in chorus performed more consistently in face of symmetric than asymmetric QIEs. The maximal individual difference appeared the second graders' responses (SDs for symmetric and asymmetric idioms 0.43 vs. 0.44) and dwindled with age.

The behavioral data confirm Hypotheses 2a and 2b in that structural symmetry assists QIE comprehension by all school-age children. The beneficial main effect of symmetry agrees with Huang et al. (1999), with Liu and Xing (2000), and partially with Liu and Cheung (2014), but this is against Liu and Yao's (2017) L2 study, see Section 2.3.2. Since the CFL learners speak a variety of mother tongues, most of which are alphabetic languages, they do not take notice of the unique symmetric structure in Chinese QIEs. As a result, they are unperceptive to the symmetry effect (Liu & Yao 2017). Liu and Cheung (2014) observe the symmetry effect in 11-year-old children's QIE interpretation but the adverse effect in sentence production. Liu and Cheung (2014) ponder over a portion of children's acceptable sentences of misinterpreted idioms. Liu and Cheung (2014) speculate that children learn the challenging QIEs by rote without adequate understanding and recite examples from other sources. Knowing their own defect, children resort to strategic response. They memorize "the figurative labels" stuck on OA QIEs. Once detecting the signs, children cleverly pick the non-literal (or rather seemingly-unrelated) interpretations. Namely, their contrary output performance is not grounded on proper comprehension but chance or exam skills, so my finding of effective symmetry is still in tune with previous literature.

Besides, I find that the symmetry effect increased with age, and that its strongest and only significant effect occurred at age 11. Liu and Cheung (2014) also perceive that preadolescent children begin to establish their figurative language, and that 11-

year-old children are competent to do internal analysis of idioms in spite of large individual differences in this “gradual and protract process” (p.350). Noteworthy, the child participant group who gains considerably from the symmetry effect feels weaker context effect. There is no surprise to this phenomenon, for the two effects basically represent polar comprehension strategies: the symmetry effect from bottom-up comprehension and the context effect from top-down comprehension. Li (2016) discovers a similar pattern in CFL learners’ comprehension strategies: the non-native-like speakers use a part-to-whole strategy when context is out of reach; on the other hand, they use an experimental strategy of verifying their predicted idiomatic meanings with context.

4.3 The Main Effect of Semantic Transparency

The participants’ response accuracy (means and SDs) for transparent and opaque Chinese QIEs are shown in Figure 4-3, and the *p*-values in Table 4-3 tell significant differences regarding semantic transparency. In Figure 4-3, the green and lighter lines indicate the means of correct interpretation of transparent and opaque idioms each. Although the green line goes slightly beneath the lighter one at ages 9 and 11, the two lines nearly overlap across ages. The overall effect of semantic transparency did not reach a significance ($p > 0.05$), neither did the between-type differences at either age. This expresses that the children understood transparent and opaque Chinese idioms on a par. In fact, the 7-year-old children received the same scores for both idiom types (means 0.75), and the largest yet still marginal between-type difference occurred at age 11 (means for transparent and opaque idioms 0.87 vs. 0.91, $p > 0.05$).

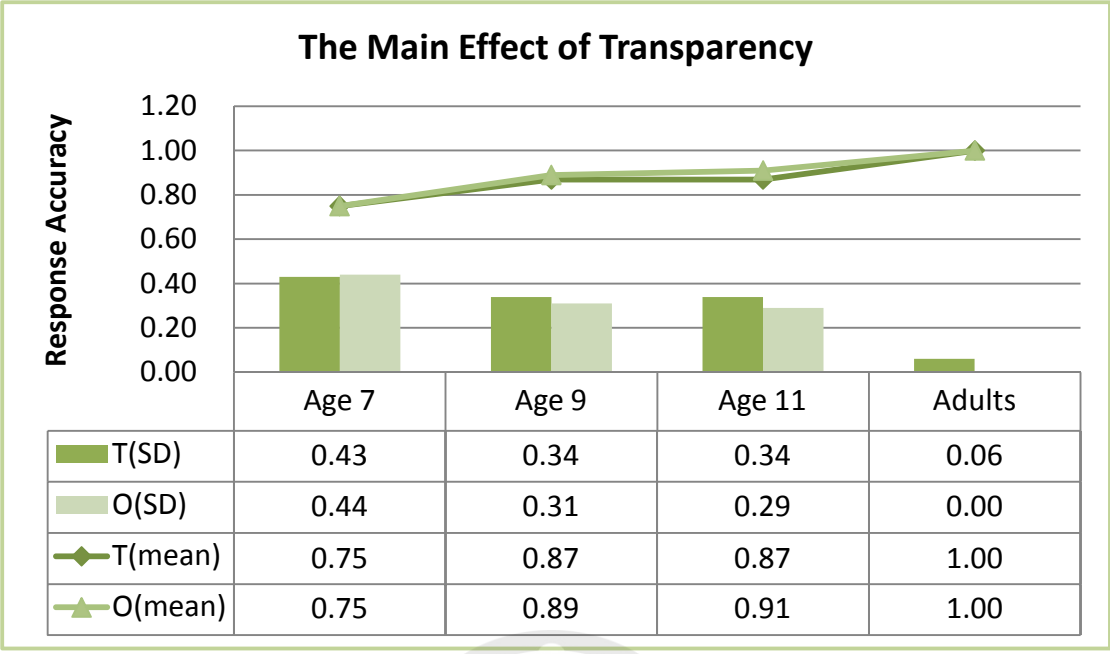


Figure 4-3. Accuracy of semantic transparency

Table 4-3. *P*-values for semantic transparency

O **T**	Age 7	Age 9	Age 11	Adults
Age 7		0.000279***	0.000178***	<2e-16***
Age 9	1.09e-06***		0.907	2.69e-11***
Age 11	7.69e-08***	0.599		5.01e-11***
Adults	<2e-16***	1.3e-09***	1.43e-08***	
T vs. O	0.855	0.275	0.134	0.318

Note: In the first columns, T and O each represent transparent and opaque idioms. The upper right corner presents between-group *p*-values within the transparent type while the bottom left presents *p*-values within the opaque type. The last row shows between-type *p*-values within each age group.

Within the transparent type, children's QIE comprehension improved significantly from age 7 to age 9 (means 0.75 to 0.87, $p < 0.001$***), held at the same level at age 11 (means 0.87 to 0.87, $p > 0.05$), and then underwent another big increase to accomplish adult comprehension (means 0.87 to 1.00, $p < 0.001$***). Likewise, within the opaque type, children's comprehension advanced considerably from age 7 to age 9 (means 0.75 to 0.89, $p < 0.001$***), improved slightly at age 11 (means 0.89 to 0.91, $p > 0.05$), and then enhanced to perfect adult comprehension (means 0.91 to 1.00, $p < 0.001$***).

Concerning distribution, the second graders' responses still revealed maximal individual difference (SDs for transparent and opaque idioms 0.43 vs. 0.44), and the difference reduced gradually with age. Noticeably, the fourth and sixth graders' performance was more consistent in face of opaque QIEs.

The behavioral data do not come out in favor of Hypothesis 1a because their results hardly yield the influence of semantic transparency on all children's QIE comprehension. If any, children at ages 9 and 11 perform better on opaque idioms. The differences are marginal though. The absent main effect of semantic transparency contradicts the consensus of previous studies on idiom comprehension done by Nippold and Taylor (1995), Zhang et al. (2013), Liu and Cheung (2014), and Liu and Yao (2017), see Section 2.2.2. For this unexpected outcome, I conjecture that the main effect of semantic transparency may be overridden by other factors or interactive effects, such as the double context or task effect of combined figurative stories and illustrations or the interaction between transparency and structural symmetry. Detailed explanation for this argument arrives later in Section 4.4.2 in terms of interaction between factors.

With regard to Hypothesis 1b, children's comprehension of transparent QIEs indeed rockets from age 7 to age 9, but it stays still until age 11 and soars again

afterwards. The intermittent growth in comprehension differs from the steady growth suggested by Nippold and Taylor (1995) on English idioms. The variation in growth trend may stem from different ages of and intervals between child groups. Nippold and Taylor (1995) enroll children at the fifth, eighth, and eleventh grades while my recruitment embrace children at the second, fourth, and sixth grades. Alternatively, Nippold and Taylor's (1995) child participants are subsequent to mine in age, and their intervals between groups are wider than mine. It is probable that children's comprehension of transparent idioms promotes intermittently initially and steadily later, or intermittently from a micro perspective and steadily from a macro perspective. Furthermore, the comprehension of transparent Chinese QIEs and English idioms simply develop in different ways. Just like what Zhang et al. (2013) proclaims, character recognition is sufficient for understanding highly transparent QIEs.

4.4 Multi-factor Interaction

After the discussion of independent factors' effect on children's comprehension, this section talks about the interaction. In the coming subsections, I expound the overall ANOVA results in Section 4.4.1, the interactive effect of age, symmetry and transparency in Section 4.4.2, and the participants' performance on the four idiom types in Section 4.4.3.

4.4.1 Overall Results of the ANOVAs

With the one-way repeated measures ANOVA, significant main and interactive effects of factors in the study are displayed in Table 4-4. The ANOVA demonstrated that the main effect of age, contextual support, and structural symmetry each was significant ($p < 0.001$***, $p < 0.001$***, $p < 0.01$**), and that the effect of contextual

support was farther-reaching than the effect of structural symmetry. No main effect was found for semantic transparency ($p > 0.05$), but its interaction with structural symmetry or even their three-way interaction with age were both significant ($p < 0.001$***, $p < 0.01$**,). Another interactive effect was proved between age and contextual support ($p < 0.001$***). This was manifested on the fact that the younger the children were, the more heavily they relied on context to infer idiomatic meanings. Based on the *p*-values in Table 4-4, a hierarchy of factors' main effect on Chinese QIE interpretation can be induced as follows and as exhibited in Figure 4-4: age over contextual support, over structural symmetry, over semantic transparency. In view of the strong context effect ($p = 1.71e-07$***), it is likely that the main effect of semantic transparency is overridden by the dominant influence of context during QIE comprehension. This supposition echoes to Hsieh and Hsu's (2010) finding that children at ages 6 and 9 and adults rely more on contextual support than literal meanings of idioms in comprehension. The supposition is further inspected in comparison to the possibility of the interactive effect overtaking the main effect in the next section. The validation of the ANOVAs sustains Hypotheses 3c and 2c for the desired main effect of context and symmetry, but it refutes Hypothesis 1c owing to the modest transparency effect.

Table 4-4. Significant main effects and interactions between factors

Factors	**DF**	***F* value**	***P* value**
Age (2^{nd}, 4^{th}, 6^{th} graders, adults)	3	69.159	< 2e-16***
Context (contextualized vs. decontextualized)	1	27.486	1.71e-07***
Symmetry (symmetric vs. asymmetric)	1	8.650	0.003301**
Age × Context	3	6.044	0.000425***
Symmetry × Transparency	1	37.673	9.68e-10***
Age × Symmetry × Transparency	3	0.372	0.008683**

Note: P-value < 0.05 reaches significance (*).

P-value < 0.01 and < 0.001 are of much higher significance (**) and (***).

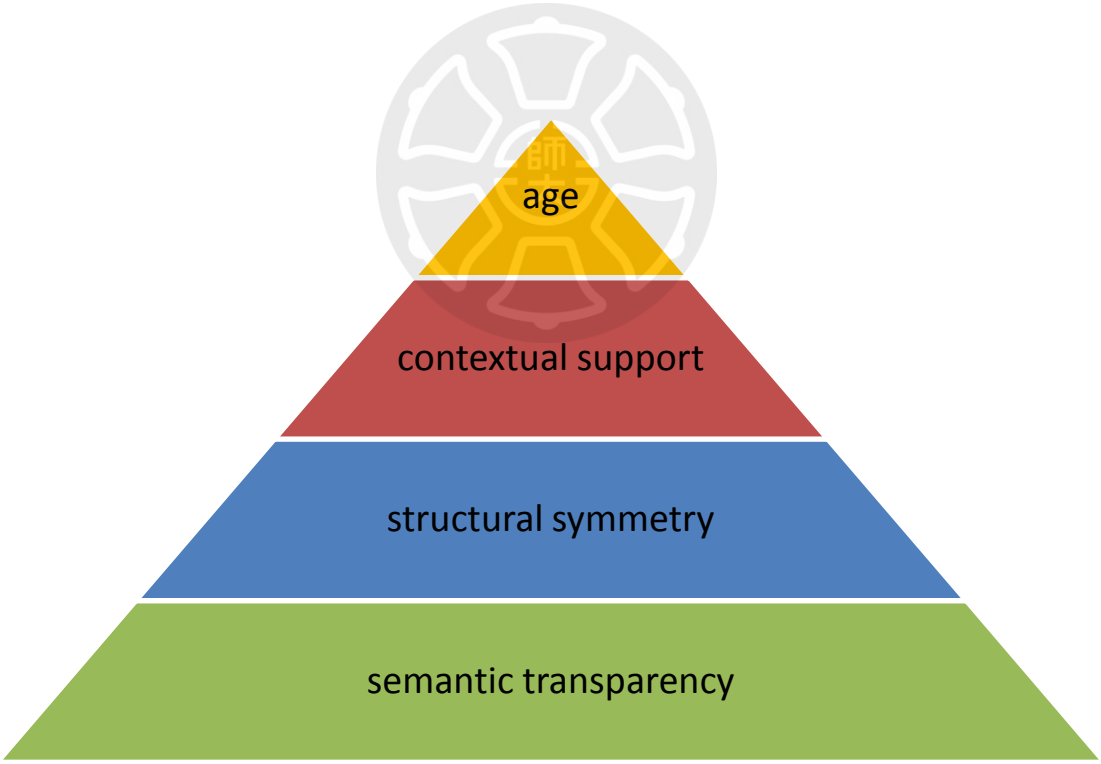


Figure 4-4. Rankings of factors' main effect in this study

Note: The higher the rank, the more effective the factor is in the study.

4.4.2 The Interactive Effect of Symmetry and Transparency

With reference to Table 4-4, the interaction between structural symmetry and semantic transparency produced the second most significant effect (p = 9.68e-10***) on children's QIE comprehension, which was more remarkable than the context effect. The following tables present significant effects in their interaction. Table 4-5 demonstrates the symmetry effect on transparent QIEs. Table 4-6 demonstrates the transparency effect on symmetric QIEs and the adverse effect on asymmetric idioms.

Table 4-5. Significant symmetry effect on transparent QIEs

Conditions		Group	Age 7	Age 9	Age 11
Transparent QIEs	CIT	Mean	S > A (0.88, 0.75)	S > A (0.99, 0.84)	S > A (0.95, 0.83)
		p-value	0.0431*	0.0007***	0.0122*
	DIT	Mean	---	S > A (0.89, 0.75)	S > A (0.96, 0.74)
		p-value		0.024*	4.95e-05***

Table 4-6. Significant (adverse) transparency effect on (a)symmetric QIEs

Conditions		Group	Age 7	Age 9	Age 11
Symmetric QIEs	CIT	Mean	---	T > O (0.99, 0.90)	---
		p-value		0.0162*	
	DIT	Mean	---	---	T > O (0.96, 0.86)
		p-value			0.0252*
Asymmetric QIEs	CIT	Mean	---	T < O (0.84, 0.94)	T < O (0.83, 0.94)
		p-value		0.0457*	0.0279*
	DIT	Mean	---	T < O (0.75, 0.90)	T < O (0.74, 0.91)
		p-value		0.0124*	0.00339**

Note: The symbol ">" denotes the relation between mean accuracy of the idiom types. The S and A in Table 4-5 represent symmetric and asymmetric idioms under the big transparent type. The T and O in Table 4-6 represent transparent and opaque idioms under the big symmetric and asymmetric types.

As mentioned before in Section 4.2, the main effect of structural symmetry increased with age and reached a significance at age 11 (p = 0.00587**). However, as in Table 4-5, all child groups benefited from the symmetry effect in the CIT (p < 0.05*), and the fourth and sixth graders still so in the DIT (p < 0.05*, p < 0.001***). The symmetry effect was manifested on transparent QIEs only and was the most significant at age 11 in the DIT and at age 9 in the CIT (p = 4.95e-05***, p = 0.0007***). The time for the most significant symmetry effect advanced to a younger age from ages 11 to 9 in contextualized comprehension. It was evident that the symmetry effect facilitated transparent QIE comprehension, and that it could spread to the second graders' comprehension and reach a higher significance in the fourth graders' comprehension with the aid of context. The structural symmetry's facilitation to understanding transparent and contextualized QIEs backs up Hypothesis 2c, and the supposed emergence of the symmetry effect in Hypothesis 2b can advance to age 7. Its strongest effect generally works at the age of 11 and can advance to the age of 9 with contextual support.

Semantic transparency, despite being a marginal single factor, interacted dramatically with structural symmetry. As shown in Table 4-6, upon symmetric QIEs, the fourth graders profited from the transparency effect in the CIT (p < 0.05*), and the sixth graders profited in the DIT (p < 0.05*). These pieces of evidence partly stand for Hypothesis 1a that transparent QIEs are easier for children to understand. With the help of context, the transparency effect reached significance at a younger age (from ages 11 to 9), which certifies a part of Hypothesis 1c that context indeed reinforces the transparency effect. In contrast, upon asymmetric QIEs, an adverse transparency effect was manifested on the fourth and sixth graders' comprehension (p < 0.05*), and the adverse effect was the strongest on the sixth graders' in the DIT (p < 0.01**). The contrary results have something to do with the children's language habits (on lower-

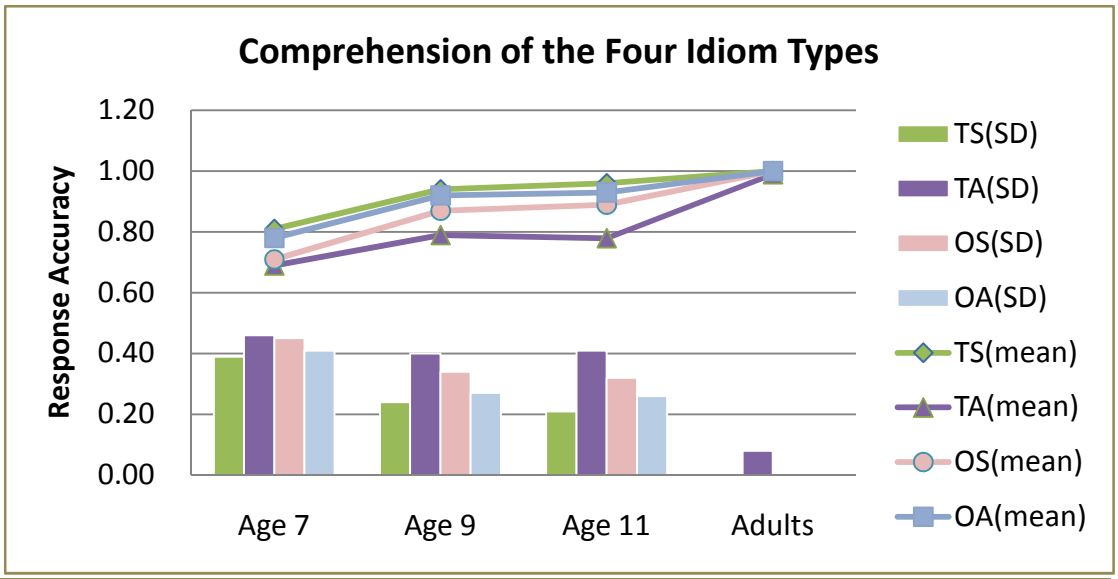
scored TA idioms) and strategic response (on OA idioms); the findings are explained in the next section with the four idiom types.

To conclude, although semantic transparency did not bring about main effect, it at least works at children's comprehension of symmetric QIEs. Besides, the main effect of transparency is more likely to be overridden by its interaction with symmetry instead of the context effect because the interaction is more significant in statistics, and because context advances the time when children feel the transparency effect.

4.4.3 Comprehension of the Four Idiom Types

The response accuracy (means and SDs) for the four idiom types (transparent vs. opaque and symmetric vs. asymmetric) are shown in Figure 4-5. At its top, the parallel lines in turn indicate the means of correct interpretation of TS, OA, OS, and TA idioms; they maintain this order along the uphill without intersection. This implies that the difficulty rankings of TS < OA < OS < TA idioms applied to all children.

In Table 4-7, the *p*-values tell significant differences between the four idiom types. Within each and all child groups, the means of TS idioms were significantly higher than those of OS and TA idioms (e.g., all children: means 0.90 > 0.82 and 0.76, both differences $p < 0.001$***), but no significant difference was obtained between TS and OA idioms (e.g., all children: means 0.90 vs. 0.88, $p > 0.05$). Within the same groups except the youngest, means of OA idioms were scored measurably higher than TA ones (e.g., all children: means 0.88 > 0.76, $p < 0.001$***). As for the raltion between OA, OS, and TA types, OA idioms were easier than OS idioms and the OS idioms easier than TA ones. The difference between OA and OS idioms was statistically important only among all children (means 0.88 > 0.82, $p < 0.05$*) while the difference between OS and TA idioms was proved important for the 11-year-olds and all children (e.g., all children: means 0.82 > 0.76, $p < 0.05$*).



	Age 7		Age 9		Age 11		Adults		Children	
	mean	SD	mean	SD	mean	SD	mean	SD	mean	SD
TS	0.81	0.39	0.94	0.24	0.96	0.21	1.00	0.00	0.90	0.30
TA	0.69	0.46	0.79	0.40	0.78	0.41	0.99	0.08	0.76	0.43
OS	0.71	0.45	0.87	0.34	0.89	0.32	1.00	0.00	0.82	0.38
OA	0.78	0.41	0.92	0.27	0.93	0.26	1.00	0.00	0.88	0.33

Figure 4-5. Accuracy of the four idiom types

Table 4-7. *P*-values for the four idiom types

Group	Age 7	Age 9	Age 11	Children
Mean *p*-value	TS > TA 0.0137*	TS > TA 0.000146***	TS > TA 2.63e-06***	TS > TA 1.43e-09***
Mean *p*-value	TS > OS 0.0357*	TS > OS 0.0377*	TS > OS 0.0219*	TS > OS 0.000359***
Mean *p*-value		OA > TA 0.00137**	OA > TA 0.000256***	OA > TA 1.88e-06***
Mean *p*-value			OS > TA 0.0105*	OS > TA 0.0113*
Mean *p*-value				OA > OS 0.0242*

Note: The “Children” group includes all child participants, namely, children at ages 7, 9, and 11. The symbol “>” denotes the relation between the means of two types.

To sum up, the children's performance on the four idiom types was in harmony, and the ascending difficulty rankings of Chinese QIEs testified by the repeated-measures ANOVA was TS, OA < OS < TA idioms.

Controversially, the easiest TS idiom type upholds Hypotheses 1a and 2a for positive transparency and symmetry effects while the easiest OA type holds against them. Liu and Yao (2017) discover the same paradox in foreigners' QIE interpretation. Liu and Cheung (2014), on the other hand, identify OA QIEs as the most difficult type in 11-year-old children's acquisition. Liu and Cheung (2014) observe that the children have trouble interpreting OA idioms, but that they do better with asymmetric idioms in sentence production. Liu and Cheung (2014) argue that, without proper understanding, children are incompetent to "create" acceptable "new" sentences by themselves, and that their flawless products are copies of dictionary examples from rote memory. It can be presumed from Liu and Cheung's (2014) argument that children pay more attention to QIEs which they think of as the hardest, and that they label the unintelligible idioms as special "figurative chunks" and memorize the chunks by rote. Encountering these "figurative labels", children cleverly choose the idiomatic interpretations even if they never connect the idiom to its desired interpretation in actual use. This strategic reaction may be the cause for better scores on the OA type in current study and Liu and Yao's (2017) CFL study. According to Hsieh and Hsu (2010) (cf. Section 2.4.2), children's linguistic convention achieves importance at age 9. The child participants in this study just administrate the hardest OA QIEs as linguistic conventions right at this age because the scores for OA QIEs become significantly higher at age 9 ($p < 0.01$**).

Regarding distribution of responses, the standardized deviations coincided inversely with mean scores; that is, the higher the SD read, the lower the score. It

expressed that greater individual differences appeared at harder idiom types. The largest SD fell on the youngest children (SDs of all types approximately 0.40) as well as on the lowest-scoring TA QIEs (SDs of all ages above 0.40). Interestingly, the only inconsistencies in the progress of idiom comprehension happened at the interpretation of TA QIEs as well. Specifically, the 11-year-olds and 9-year-olds scored poorer than their younger counterparts on half of and the only two derogatory TA idioms as in (1), (2), and Table 4-8.

(1) *jian-qian-yan-kai* 見錢眼開
see-money-eye-open
'an ugly face of greedy people who only concern about money but no other things'
(2) *bie-you-yong-xin* 別有用心
differently-have-use--intention
'to have ulterior motives'

Table 4-8. Accuracy of derogatory TA idioms

Idiom	Age 7	Age 9	Age 11	Adults	Children
jian-qian-yan-kai	0.68	0.80	0.55	1.00	0.68
bie-you-yong-xin	0.68	0.53	0.60	0.98	0.60

Transparent idioms have been widely acknowledged in literature (Nippold & Taylor 1995, Zhang et al. 2013, Liu & Cheung 2014, Liu & Yao 2017) as simpler idioms. Generally speaking, it is impossible for older children to interpret transparent QIEs much worse than the younger in particular to the extent of almost chance-level accuracy (means 0.55 < 0.68 and 0.53 < 0.68). Consulting the elementary-school teachers, I found that the sixth and fourth graders commonly used *jian-qian-yan-kai* in an ironic or neutral tone, and that the fourth graders used *bie-you-yong-xin* in a similar manner. They habitually deprived these idioms of the derogatory sense; therefore,

they were prone to the literal or humorous reading during comprehension. Their mischievous behavior ought to be responsible for the temporary regression in the acquisition of Chinese QIEs and also for the modest main effect of semantic transparency in the study.

4.5 Developmental Stages of Children's Comprehension of QIEs

This cross-sectional study collected data of children at ages 7, 9, and 11 so as to simulate the developmental process of Chinese QIE acquisition. The average scores for each age group and the difference in factor effects (symmetry, context, and transparency) on each age are displayed synthetically and systematically in Figure 4-6.

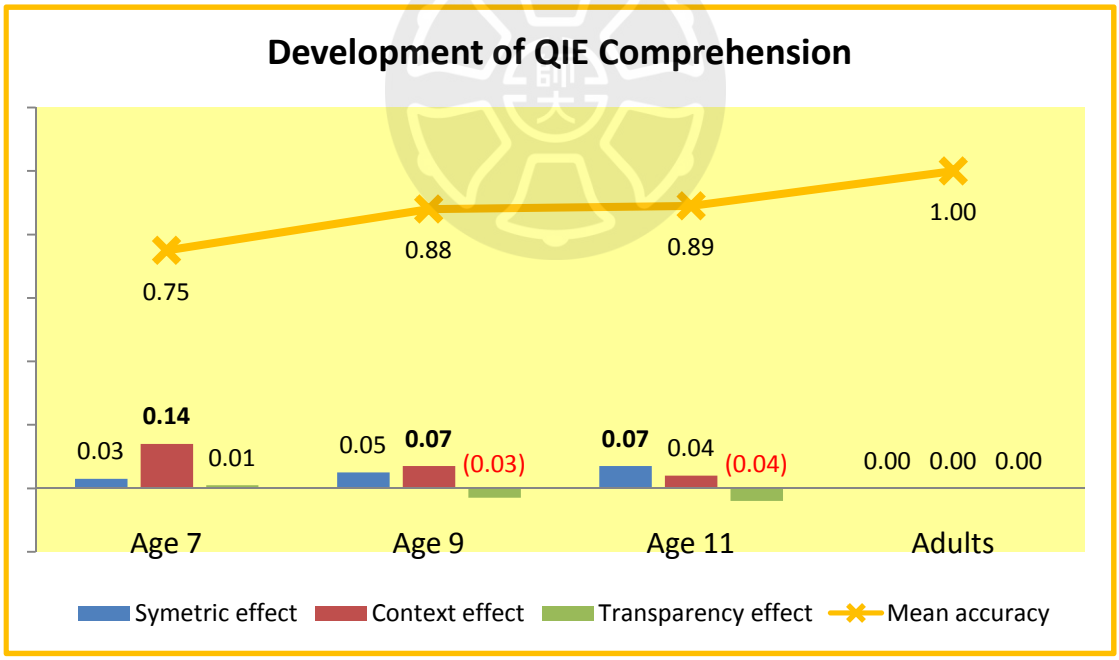


Figure 4-6. Developmental patterns of QIE comprehension

Note: The bars represent accuracy gap between idiom types or conditions (DIT/CIT), and the boldfaced values represent significant difference.

Why are there three stages in the developmental process?

The orange line for mean accuracy discloses that children at age 7 comprehended three quarters of tested QIEs, and that children's comprehension approached ninety percent at ages 9 and 11. None accomplished mature speaker's perfect understanding. According to the average accuracy scores, the age of 7 is one phase, and the ages of 9 and 11 belong to another in the acquisition of Chinese quadra-syllabic idioms. This division is agreeable to Hsieh and Hsu's (2010) contention that children's linguistic convention emerges at age 6 and brings about significant effect at age 9 (cf. Section 2.4.2). Nevertheless, this two-phase division of the developmental process can not characterize the main effects of factors manifested by underneath bars in Figure 4-6 and the different interactive effects demonstrated in Tables 4-5 and 4-6 (cf. Section 4.4.2).

In Figure 4-6, it is obvious that children of the three ages experienced the context, symmetry, and transparency effects variously. The 7-year-old children felt an extremely strong context effect (between-type difference: mean 0.14, $p < 0.001$***), a marginal symmetry effect (mean gap 0.03, $p > 0.05$), and scarcely the transparency effect (mean gap 0.01, $p > 0.05$). The 9-year-olds felt a strong context effect (between-type difference: mean 0.07, $p < 0.01$**), a soft symmetry effect (mean gap 0.05, $p > 0.05$), and slightly the adverse transparency effect (mean gap 0.03 $p > 0.05$). Instead of context, the 11-year-olds felt a strong symmetry effect (between-type difference: mean 0.07, $p < 0.01$**) and slightly the context and adverse transparency effects (both effects: mean gap 0.04, $p > 0.05$). With interactive effects, the 11-year-olds felt stronger symmetry effect on decontextualized transparency QIEs than the 9-year-olds did (mean gap 0.22 > 0.14, $p < 0.001$***, $p < 0.05$*) in Table 4-5. Similarly, the 11-year-olds felt stronger adverse transparency effect on decontextualized symmetric QIEs than the 9-year-olds (mean gap 0.17 > 0.15, $p < 0.01$**, $p < 0.05$*) in

Table 4-6. Furthermore, in Table 4-6, the contextual support advanced the time when the transparency effect worked on symmetric idioms from the ages of 11 to 9 (mean gap 0.10, 0.09, both differences $p < 0.05$*). In light of their diverse tendencies, the three age periods ought to be separate stages of the acquisition process.

Discussion on the three developmental stages

On the above bases, I propose a three-stage developmental process to model children's comprehension of Chinese quadra-syllabic idioms. The significant effects on each child group are summarized in Tables 4-9 to 4-11, and children's behavior at each stage of QIE acquisition is generalized in Figure 4-7.

The first stage

Children at age 7 (Grade 2) represented the first stage in Chinese QIE acquisition, and the significant effects on their comprehension are summarized in Table 4-9.

Table 4-9. Significant effects on comprehension at age 7

	Effect (conditions)	**Between-type difference** (mean accuracy)	**Significance** (*p*-value)
Age 7	Context (main effect)	C > D 0.82 − 0.68 = 0.14	p = 2.44e-05***
	Symmetry (on transparent QIEs)	TS > TA 0.81 − 0.69 = 0.12	p = 0.013*
	Symmetry (on transparent QIEs/CIT)	TS > TA 0.88 − 0.75 = 0.13	p = 0.043*
	Transparency (on symmetric QIEs)	TS > OS 0.81 − 0.71 = 0.10	p = 0.035*

"Linguistic convention, [that is,] … the arbitrary link between the linguistic form and its meaning in the idiomatic expression, … starts from age 6 on." (Hsieh & Hsu 2010:505–506, cf. Section 2.4.2) Zhang et al. (2013) submit that character recognition

is necessary for QIE comprehension (cf. Section 2.2.2). With these in mind, I assume that the first stage of QIE acquisition comes about around the age of 7, when children have started school and have learnt Chinese characters for a year. At this stage, children just began recognizing characters and reading, so they were incapable of doing language analysis, let alone subtle internal analysis of QIEs' meaning. As a result, the 7-year-old children performed evenly on transparent and opaque QIEs (both means 0.75), for the difficulty level of component characters was controlled. Despite little literal analysis on idioms (between-type difference: mean 0.01, $p > 0.05$), the 7-year-olds were able to make a rough symmetric comparison between characters, and the semantic enforcement of parallelism helped in their QIE comprehension. This was proved by the second graders' better performances on TS idioms than TA ones (means 0.81 > 0.69, $p < 0.05$*) and on TS idioms than OS ones (means 0.81 > 0.71, $p < 0.05$*). In addition, Liu et al. (2010) contend that semantic and contextual cues are vital for Chinese language comprehension (cf. Section 2.3.2). Unable to do internal analysis on idiom semantics, the 7-year-olds relied overwhelmingly on context (both stories and pictures) to understand QIEs (between-type difference: mean 0.14, $p < 0.001$***), and the context effect reinforces the symmetry effect on transparent QIEs (means for TS and TA idioms 0.88 > 0.75, $p < 0.05$*). The illustrations aroused the youngsters' passion and desire for figuring out the challenging idiomatic meanings, which was observed in the experiment. The story context allowed the youngsters to verify their attempted interpretations, which is in favor of Li's (2016) observation on CFL learners' comprehension strategy in contextualized condition (cf. Section 2.4.2).

In a word, the supporting contexts clarify complex concepts, eliminate ambiguous interpretations, reinforce the key emotional implication by each other, and hence facilitate children's QIE comprehension in the first stage.

The second stage

Children at age 9 (Grade 4) represented the second stage in QIE acquisition, and the significant effects on their comprehension are summarized in Table 4-10.

Table 4-10. Significant effects on comprehension at age 9

	Effect (conditions)	**Between-type difference** (mean accuracy)	**Significance** (*p*-value)
Age 9	Context (main effect)	C > D 0.92 — 0.84 = 0.08	*p* = 0.005**
	Symmetry (on transparent QIEs)	TS > TA 0.94 — 0.79 = 0.15	*p* = 0.0001***
	Symmetry (on transparent QIEs/CIT)	TS > TA 0.99 — 0.84 = 0.15	*p* = 0.0007***
	Symmetry (on transparent QIEs/DIT)	TS > TA 0.89 — 0.75 = 0.14	*p* = 0.024*
	Adverse Transparency (on asymmetric QIEs)	TA < OA 0.79 — 0.92 = -0.13	*p* = 0.001**
	Adverse Transparency (on asymmetric QIEs/DIT)	TA < OA 0.75 — 0.90 = -0.15	*p* = 0.012*
	Adverse Transparency (on asymmetric QIEs/CIT)	TA < OA 0.84 — 0.94 = -0.10	*p* = 0.045*
	Transparency (on symmetric QIEs/CIT)	TS > OS 0.99 — 0.90 = 0.09	*p* = 0.016*
	Transparency (on symmetric QIEs)	TS > OS 0.94 — 0.87 = 0.07	*p* = 0.037*

"A significant effect of linguistic convention takes place at the age of 9." (Hsieh & Hsu 2010:505, cf. Section 2.4.2) I suppose the second stage to be around this age. During this period, children's figurative awareness of QIEs improved rapidly as indicated by their incredible progress in accuracy from the previous stage. They were able to analyze QIEs internally for comprehension. This was proved by the fourth graders' better performances on TS idioms than TA ones (means 0.94 > 0.79, $p < 0.001$***) and on TS idioms than OS ones (means 0.94 > 0.87, $p < 0.05$*). Meanwhile,

the 9-year-old children depended weightily on contextual support to comprehed Chinese QIEs (between-type difference: mean 0.08, $p < 0.01$**). The context effect reinforced the transparency effect on symmetric QIEs (means for TS and OS idioms 0.99 > 0.90, $p < 0.05$*). This reinforcement corresponds to Zhang et al.'s (2013) finding that (literal) contextual support facilitates comprehension of highly transparent QIEs (of the double verb + noun structure), see Section 2.2.2. Likewise, the context effect reinforced the symmetry effect on transparent QIEs (CIT: means for TS and TA idioms 0.99 > 0.84, $p < 0.001$***; DIT: means for TS and TA idioms 0.89 > 0.75, $p < 0.05$*). According to Li (2016), learners tend to use a "part-to-whole" strategy in decontextualized idiom comprehension and a "top-down" verification of idiomatic interpretations in context. Nonetheless, the 9-year-olds experienced a more powerful symmetry effect on transparent idioms and transparency effect on symmetric idioms in the CIT than in the DIT (symmetry: $p < 0.001$***, $p < 0.05$*; transparency: $p < 0.05$*, $p > 0.05$). The symmetry and transparency effects required a "part-to-whole and literal-to-figurative" strategy, yet their effects were strengthened in context. This finding disagrees with Li (2016). The disagreement can be settled by the account that the 9-year-old children as young native speakers were familiar with the Chinese language so they could shift between and profit from two counter strategies at the same time. The CFL learners, otherwise, cannot imitate this understanding strategy. Apart from evidence for hypotheses of the study, the fourth graders understood OA idioms better than TA idioms (means 0.92 > 0.79, $p < 0.01$**). Their school teachers stated that the 9-year-olds liked to use derogatory TA QIEs, such as *bie-you-yong-xin* 別有用心 'to have ulterior motives' in (2), ironically or humorously in jokes. The adverse transparency effect was manifested on asymmetric QIEs only and was more obvious in the DIT than in the CIT (DIT: between-type differences 0.15, $p < 0.05$*; CIT: between-type differences 0.10, $p < 0.05$*).

In short, the second stage is the turning point in QIE acquisition – children's accuracy in comprehension booms, and they shift between top-down and bottom-up comprehension strategies. Generally, children at the second stage depend largely on contextual support in QIE comprehension. When they encounter transparent QIEs, especially in context, they benefit from the unique symmetric structure which conveys similar or opposite semantic comparisons.

The third stage

Children at age 11 (Grade 6) represented the third stage in QIE acquisition, and the significant effects on their comprehension are summarized in Table 4-11.

Table 4-11. Significant effects on comprehension at age 11

	Effect (conditions)	**Between-type difference** (mean accuracy)	**Significance** (*p*-value)
Age 11	Symmetry (main effect)	S > A 0.92 — 0.85 = 0.07	*p* = 0.005**
	Symmetry (on transparent QIEs)	TS > TA 0.96 — 0.78 = 0.18	*p* = 2.63e-06***
	Symmetry (on transparent QIEs/DIT)	TS > TA 0.96 — 0.74 = 0.22	*p* = 4.95e-05***
	Symmetry (on transparent QIEs/CIT)	TS > TA 0.95 — 0.83 = 0.12	*p* = 0.012*
	Adverse Transparency (on asymmetric QIEs)	TA < OA 0.78 — 0.93 = -0.15	*p* = 0.0002***
	Adverse Transparency (on asymmetric QIEs/DIT)	TA < OA 0.74 — 0.91 = -0.17	*p* = 0.003**
	Adverse Transparency (on asymmetric QIEs/CIT)	TA < OA 0.83 — 0.94 = -0.11	*p* = 0.027*
	Transparency (on symmetric QIEs)	TS > OS 0.96 — 0.89 = 0.07	*p* = 0.021*
	Transparency (on symmetric QIEs/ DIT)	TS > OS 0.96 — 0.86 = 0.10	*p* = 0.025*
	Interaction	OS > TA 0.89 — 0.78 = 0.11	*p* = 0.010*

I posit that the time after the second stage and before adolescence is the third stage. In this stage, children's progress in comprehension accuracy slowed down; they parted from their preliminary comprehension strategies and analyzed idioms internally to infer the figurative meaning. Most obviously, the 11-year-old children relied on the symmetric structure in QIE interpretation (between-type difference: mean 0.07, $p < 0.01$**), and the symmetry effect was the most significant on transparent QIEs (means for TS and TA idioms 0.96 > 0.78, $p < 0.001$***), especially in the DIT rather than the CIT (DIT: means for TS and TA idioms 0.96 > 0.74, $p < 0.001$***; CIT: means for TS and TA idioms 0.95 > 0.83, $p < 0.05$*). Congruously, the 11-year-olds understood TS idioms better than OS ones (means 0.96 > 0.89, $p < 0.05$*), and the transparency effect was only significant in the DIT not in the CIT (DIT: means for TS and OS idioms 0.96 > 0.86, $p < 0.05$*; CIT: means for TS and OS idioms 0.95 > 0.91, $p > 0.05$). From the above performances, it was apparent that the sixth graders concentrated on the internal analysis of Chinese QIEs and put little attention to the context. Nippold and Duthie (2003) have a similar opinion in the meta-semantic theory that without contact with idioms and attention to the linguistic context, learners resort to internal analysis for idiomatic meaning inference (cf. Section 2.2.2).

Because the tested items were adjusted to fit for the second graders' literacy, all tested QIEs were composed of basic characters. As Zhang et al. (2013) suggest, comprehension of highly transparent QIEs calls for only character recognition (cf. Section 2.2.2), that is, no need for later semantic integration with context. The 11-year-old children used a "part-to-whole and literal-to-figurative" strategy in Chinese QIE comprehension, which resonates with Li's (2016) findings that the part-to-whole strategy are common in decontextualized condition. Thanks to their mature literal

analysis, the sixth graders liked to use derogatory TA QIEs, such as *jian-qian-yan-kai* 見錢眼開 'an ugly face of greedy people who only concern about money but no other things' and *bie-you-yong-xin* 別有用心 'to have ulterior motives' in (1) and (2), in ironic and humorous manners. Consequently, the 11-year-old children comprehended TA idioms literally and worse than OA idioms (means 0.78 < 0.93, $p < 0.001$***). This adverse transparency effect was manifested on asymmetric QIEs only and was more serious in the DIT than in the CIT (DIT: between-type differences 0.17, $p < 0.001$**; CIT: between-type differences 0.11, $p < 0.05$*).

To sum up the third stage, children's idiom comprehension is dependent on internal analysis and independent of context. Their linguistic competence is approaching that of mature native speakers, but their performance has not achieved adult perfect comprehension.

Conclusion

Preadolescence is a soaring stage for figurative language development (Nippold & Duthie 2003), and children's metaphorical awareness of Chinese quadra-syllabic idioms begins to evolve at this period with considerable individual differences (Liu & Cheung 2014). The younger the children, the larger the individual differences manifest in Chinese QIE comprehension. In this acquisition process, the age of 6 is the starting point, and the age of 9 is the accelerating stage. Later on, the uptrend slows down, and children turn to refine their comprehension strategies. The child participants' abilities at each stage are summarized in Figure 4-7. Along the development, contextual support has a powerful long-lasting influence. Structural symmetry produces strong effect as children acquire internal analysis of QIEs or facing transparent QIEs afterwards. Semantic transparency, however, exerts modest main effect but still interacts profoundly and constantly with symmetry. Research on

QIE acquisition is essential because Chinese QIEs are unique amid all languages in the world, and also because it provides evidence for human cognition and later language development.

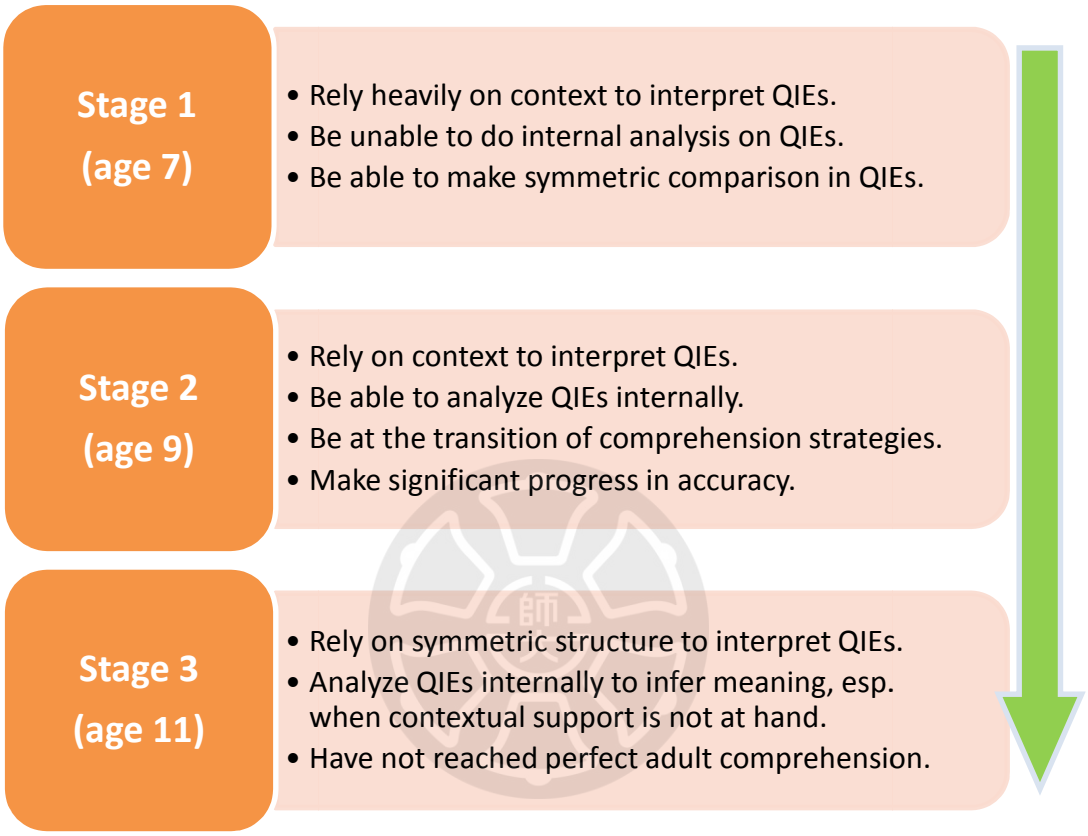


Figure 4-7. Developmental stages of children's QIE comprehension

4.6 Summary of Chapter Four

Experimental results and research findings on children's comprehension of Chinese QIEs are shared in this chapter. In Section 4.1, I have reported the salutary main effect of contextual support on children at different ages with reference to previous studies. In Section 4.2, I have related the positive main effect of structural symmetry on children's QIE comprehension to the literature. In Section 4.3, I have talked about the modest main effect of semantic transparency in opposition to prior consensus. Next, in Section 4.4, I have ranked the main effect of factors and their interaction as well as the comprehension difficulty of the four idiom types; I have also scrutinized the function of semantic transparency in terms of its interaction with structural symmetry and age. Finally, in Section 4.5, I have proposed three developmental stages to describe Taiwanese children's comprehension of Chinese QIEs.

Chapter Five

Conclusion

This chapter brings the current study to a conclusion. Section 5.1 highlights the major findings of the study. Section 5.2 reflects on the limitations and points a way for future direction.

5.1 Summary of the Major Findings

This study uncovers the effects of contextual support, structural symmetry, and semantic transparency on the comprehension of Chinese quadra-syllabic idioms along children's figurative language development. The subsequent major findings have answered the four research questions. The sequence corresponds to the significance of the main effects.

First of all, children comprehended Chinese QIEs more easily in context than in isolation. The beneficial effect of combined short stories and pictorial contexts decreased with age and became insignificant at the age of 11. The contextual support further strengthened the symmetry and transparent effects on children's QIE comprehension. The evidence sustained Hypothesis 3 about supporting context.

Secondly, children comprehended symmetric QIEs better than asymmetric ones. The effect of structural symmetry increased with age and became significant at the age of 11. The symmetry effect advanced in time and in degree by facilitation of context and was manifested significantly on comprehension of transparent QIEs. The evidence maintained Hypothesis 2 about the unique symmetric structure of Chinese QIEs.

Thirdly, children comprehended transparent and opaque QIEs in a draw. The modest main effect of semantic transparency is overridden by its remarkable interaction with structural symmetry. To be more specific, the transparency effect worked at comprehension of symmetric QIEs, whereas the adverse effect worked at comprehension of asymmetric QIEs. The transparency effect advanced with contextual support from age 11 to age 9, and the adverse effect was significant at both ages. The evidence backed up the part of positive effect in Hypothesis 1. The adverse transparency effect resulted from the older children's (at ages 9 and 11) mischievous behavior of favoring the ironic and humorous usages of derogatory TA idioms and their strategic response in exam skills that drove them to choose the expected answer with "figurative labels".

With regard to a hierarchy of the single-factor effect, age was found superior to contextual support, then to structural symmetry, and semantic transparency at last. Despite so, the interaction between structural symmetry and semantic transparency produced the most significant effect on children's QIE comprehension. Next is the comprehension difficulty of the four idiom types. The TS and OA idioms were proved easier than OS idioms and TA idioms were the most difficult in children's QIE comprehension.

From a developmental perspective, the child participants represented three different stages of comprehension in Chinese QIE acquisition. The seven-year-old children initiated the first stage. In this stage, children's awareness of figurative language just emerged. They were incompetent to analyze QIEs internally, so context had decisive effect on their QIE comprehension. The nine-year-old children surpassed the former in accurate comprehension (88% > 75%), so a rapid growth and high accuracy signaled the second stage. This stage also featured a transition of comprehension strategies as children started to analyze QIEs internally. Finally, the

border of the third stage was vague. The twelve-year-old children relied on symmetry to interpret transparent QIEs and paid little attention to context. Their competence in literal analysis of Chinese QIEs is approaching that of mature native speakers, but their accuracy in comprehension did not catch up. To conclude, figurative awareness of Chinese quadra-syllabic idioms sprouts and flourishes rapidly at preadolescence with great individual differences.

5.2 Limitations of the Study and Suggestions for Future Research

This study adopts both short stories and pictures as contextual support. The double contexts exert such a decisive effect that it may affect the influence of semantic transparency. If future research aims to examine these two effects on older children's QIE comprehension, I suggest that future researchers should explore acquisition of Chinese QIEs in the adolescent years and supplement new results to my developmental stages. If possible, generalizations from a larger subject number will be more convincing. Finally, character recognition has been affirmed as a preliminary stage in QIE comprehension (Zhang et al. 2013, cf. Section 2.2.2). It will be interesting to compare Chinese QIE comprehension between CFL learners from alphabetic versus orthographic languages (cf. Meuter & Ehhrich 2012).

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Appendix A

Idiom Processing and Representation in L1

This appendix includes a figure that shows three different approaches to idioms, and a table that compares idiom processing models under the three approaches.

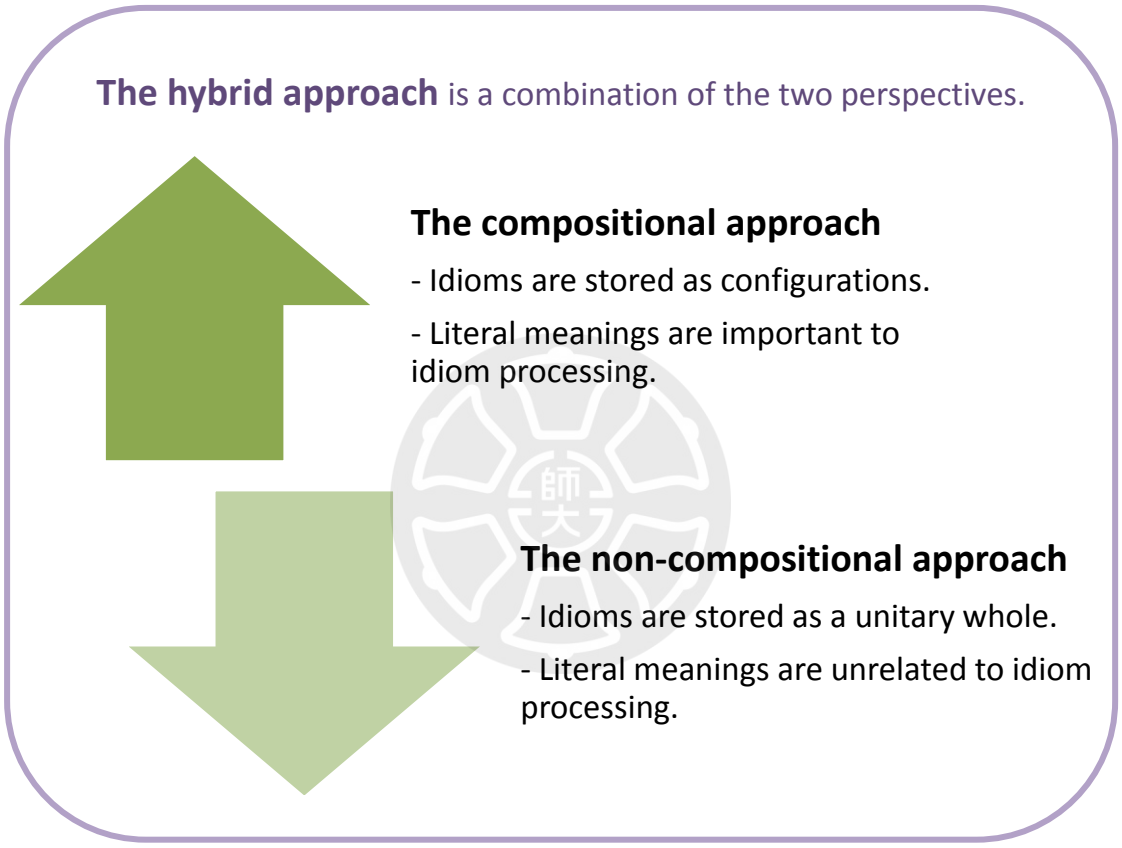


Figure A. Three approaches to idioms

Table A. Idiom processing and representation in L1

Approach	Model	Processing			Representation	Theorist	Limitation
		Literal	Relation	Figurative			
Non-compositional approach	Idiom list	O fails ‖	——————→ 2 distinct processing modes	**O**	As a whole in a special mental lexicon (i.e., the idiom list)	Bobrow & Bell 1973	- totally rely on post-perceptual measures - may reflect the final conscious result rather than the process itself
	Lexical representation	O fails ‖ <	simultaneous competition	> O	Like lexical items in regular mental lexicon	Swinney & Cutler 1979	- concurrent literal analysis (not necessarily the case)
	Direct access	X	unrelated	O	Direct retrieval from the mental lexicon	Gibbs 1980, 1986	- too arbitrary - neglect the literal meaning
Compositional approach	Idiom decomposition	O	(unspecified) analyzable	O		Gibbs & Nayak 1989, Gibbs et al. 1989	- not specify which compositional meaning - originally not intended as a processing model
	Configuration	O→ key ‖	trigger ——————→	O concurrent emergence	As configuration with distributed meanings in mental lexicon	Cacciari & Tabossi 1988, Cacciari & Glucksberg 1991	- unreliability of idiom predictability - early access of idiomatic meaning does not stop ongoing literal processing

Table A. (*Continued*)

Approach	Model	Processing			Representation	Theorist	Notes
		Literal	Relation	Figurative			
Hybrid approach	**Hybrid model**	O	combined	O	Both as unitary word configurations and compositional word sequences	Titone & Connine 1999	
	Graded salience	O	< - - - - - - - - only in literal contexts	O - salient	Salient meanings are activated via a direct look-up in lexicon.	Giora 1997, 1999, 2002, 2003	Salient meanings enjoy prominence due to their conventionaliry, frequency, familiarity & prototypicality.
	Dual route model	(1) obligatory computation of elements ↓ recognition ↗ automatic ↓ point ↗ activation (2) direct retrieval of configuration			p.s. The figure on the left is derived from Carrol and Conklin (2014, p.786).	Wray & Perkins 2000, Wray 2002, Van Lancker Sidtis 2012	※ **Symbolism:** O/O = meaning activation of more/less significance; X = not in discussion; ‖ = the end of activation; → = the processing order.

Note: The black circle (O) indicates more significant activation of meaning. The parallel verticals (‖) depicts the termination of activation.
The gray circle (O) indicates less significant activation of meaning. The arrow (→) depicts the processing order.
The black cross (X) means the issue is not in discussion.

Appendix B Subjective Semantic Taxonomies of Idioms

Researcher	Nunberg (1978)	Cutler (1982)	Gibbs, Nayak & Cutting (1989)	Cacciari & Glucksberg (1991), Glucksberg (1993)	Nunberg, Sag & Wasow (1994)
Taxonomy	3 types by decomposability	2 types by transparency	3 types by transparency	3 types by transparency	2 types by compositionality
Idiom Type, Semantic Relation, and Example	Normally decomposable idioms: a part with literal relation (*pop the question*)		Transparent idioms: direct relation (*pop the question*)		
	Abnormally decomposable idioms: a part with metaphorical relation (*spill the beans*)	Transparent idioms: meaning extension (*grasp the nettle*)	Semi-transparent idioms: indirect relation (*spill the beans*)	Transparent idioms: intuitive relation (*spill the beans*)	Idiomatic combinations: distributable meaning (*pull strings*)
				Quasi-metaphorical idioms: metaphorical relation via allusions from the overall literal meaning (*carry coals to Newcastle*)	
	Non-decomposable idioms: no obvious relation (*kick the bucket*)	Opaque idioms: obscure relation (*red herrings*)	Opaque idioms: no obvious relation (*kick the bucket*)	Opaque idioms: no obvious relation (*kick the bucket*)	Idiomatic phrases: non-distributable meaning (*kick the bucket*)

Appendix C

Tested Idioms Used in the Two Tasks

Type		NO.	Idiom	Difficulty Level				Mean	Max.	DIT	CIT
Transparent	Symmetric	37	天長地久	P1	1	1	P1	0.5	1	Q5	Q19
		64	東張西望	P1	1	P1	1+	0.625	1+	Q10	Q17
		68	口是心非	1	P1	1	1	0.75	1	Q1	Q27
		85	心平氣和	1	1+	1	P1	0.875	1+	Q16	Q24
	Asymmetric	25	不相上下	P1	1+	P1	P1	0.375	1+	Q9	Q18
		41	別有用心	1	P1	P1	1	0.5	1	Q3	Q21
		61	見錢眼開	P1	P1	1+	1	0.625	1+	Q13	Q29
		89	念念不忘	1	1	P1	1+	0.875	1+	Q6	Q32
Opaque	Symmetric	93	旁門左道	1+	1	1	P1	0.875	1+	Q2	Q23
		156	車水馬龍	P1	P1	1	2+	0.875	2+	Q11	Q28
		173	風花雪月	1	1	2	P1	1	2	Q14	Q26
		214	門當戶對	1	1+	2+	P1	1.25	2+	Q8	Q30
	Asymmetric	81	開門見山	1	1	P1	1	0.75	1	Q4	Q31
		84	天馬行空	P1	1	1+	1	0.875	1+	Q15	Q25
		118	望穿秋水	1+	1+	1+	P1	1.125	1+	Q7	Q22
		144	節外生枝	2	P1	P1	1	0.75	2	Q12	Q20
Practice			一五一十	P1	P1	P1	P1	0	P1	Ø	Ø

Note: The second column specifies the numbering of Chinese idioms in Appendix I.

Appendix D

Transparency Ratings of Tested Idioms

Idiom Type	Pretests 9/13 Evaluators (five NS)	Transparency ratings					
		非常相關 (1)	有點相關 (2)	不太相關 (3)	完全無關 (4)	Mean	Average
TS	天長地久	3	2	0	0	1.4	1.1
	東張西望	5	0	0	0	1	
	口是心非	5	0	0	0	1	
	心平氣和	5	0	0	0	1	
TA	不相上下	3	2	0	0	1.4	1.1
	別有用心	5	0	0	0	1	
	見錢眼開	5	0	0	0	1	
	念念不忘	5	0	0	0	1	
OS	旁門左道	0	4	1	0	2.2	2.55
	車水馬龍	0	2	3	0	2.6	
	風花雪月	0	1	4	0	2.8	
	門當戶對	0	2	3	0	2.6	
OA	開門見山	0	4	1	0	2.2	2.6
	天馬行空	0	1	4	0	2.8	
	望穿秋水	0	2	3	0	2.6	
	節外生枝	0	3	0	2	2.8	
Practice	一五一十	0	0	0	5	4	4

Note: Evaluators were five graduate native speakers (NS) of Mandarin Chinese.

Appendix E

Experimental Stimuli Used in the DIT

What participants will see:	What participants will hear concurrently:
一ㄧ五ㄨˇ一ㄧ十ㄕˊ	練習題 請問「一五一十」是什麼意思呢？ (A) 一個五，一個十。 (B) 把事情說清楚。
口ㄎㄡˇ是ㄕˋ心ㄒㄧㄣ非ㄈㄟ	1. 請問「口是心非」是什麼意思呢？ (A) 說的和想的不一樣。 (B) 嘴巴很好，心不好。
旁ㄆㄤˊ門ㄇㄣˊ左ㄗㄨㄛˇ道ㄉㄠˋ	2. 請問「旁門左道」是什麼意思呢？ (A) 不好、不正當的方法。 (B) 旁邊的小門，歪斜的道路。
別ㄅㄧㄝˊ有ㄧㄡˇ用ㄩㄥˋ心ㄒㄧㄣ	3. 請問「別有用心」是什麼意思呢？ (A) 心中有不好的想法。 (B) 特別用心。
開ㄎㄞ門ㄇㄣˊ見ㄐㄧㄢˋ山ㄕㄢ	4. 請問「開門見山」是什麼意思呢？ (A) 打開門就看見山。 (B) 直接說重點。
天ㄊㄧㄢ長ㄔㄤˊ地ㄉㄧˋ久ㄐㄧㄡˇ	5. 請問「天長地久」是什麼意思呢？ (A) 天和地存在很久了。 (B) 永遠。

念念不忘	6. 請問「念念不忘」是什麼意思呢？ (A) 口中一直念，不會忘記。 (B) 一次又一次地想著，很難忘記。
望穿秋水	7. 請問「望穿秋水」是什麼意思呢？ (A) 像秋水的眼睛都要看出洞來了。 (B) 非常想念，一直在等某個人。
門當戶對	8. 請問「門當戶對」是什麼意思呢？ (A) 家裡一樣有錢，環境一樣好。 (B) 門和窗戶的大小、數量都一樣。
不相上下	9. 請問「不相上下」是什麼意思呢？ (A) 不比較誰在上面、誰在下面。 (B) 表現平手，沒有差別。
東張西望	10. 請問「東張西望」是什麼意思呢？ (A) 向四周看，到處都看。 (B) 向東邊張嘴，向西邊看。
車水馬龍	11. 請問「車水馬龍」是什麼意思呢？ (A) 車子像水，馬兒像龍。 (B) 人很多，很熱鬧擁擠。
節外生枝	12. 請問「節外生枝」是什麼意思呢？ (A) 除了舊問題，又有新問題。 (B) 竹節外長出新的枝葉。
見錢眼開	13. 請問「見錢眼開」是什麼意思呢？ (A) 看到錢，眼睛變大。 (B) 只喜歡錢，其他都不管。

風ㄈㄥ花ㄏㄨㄚ雪ㄒㄩㄝ月ㄩㄝ	14. 請問「風花雪月」是什麼意思呢？ (A) 愛情。 (B) 涼風、花香、白雪、月光。
天ㄊㄧㄢ馬ㄇㄚ行ㄒㄧㄥ空ㄎㄨㄥ	15. 請問「天馬行空」是什麼意思呢？ (A) 神馬在天上行走奔跑。 (B) 腦中想的，不是真的發生。
心ㄒㄧㄣ平ㄆㄧㄥ氣ㄑㄧ和ㄏㄜ	16. 請問「心平氣和」是什麼意思呢？ (A) 心情平靜，和人好好相處。 (B) 心跳平順，呼吸緩慢。

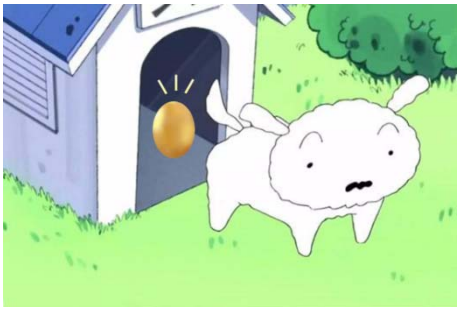
Expected answers:

Warm-up: B, Q01 – Q8: AAAB BBBA, Q9 – Q16: BABA BABA

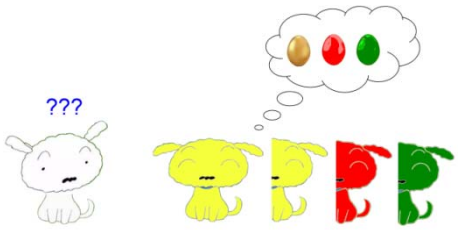
Appendix F

Experimental Stimuli Used in the CIT

What participants will see on the slide:	What participants will hear concurrently:
	練習題 今天老師打電話給小白的爸爸和媽媽，把小白在學校偷看同學考卷的事情，一五一十地全部都告訴了他們。
一ㄧ五ㄨˇ一ㄧ十ㄕˊ	練習題 請問「一五一十」是什麼意思呢？ (A) 把事情說清楚。 (B) 一個五，一個十。
	17. 原來，考試的時候，小白因為不會寫，所以就想偷看旁邊同學的答案，小白東張西望，被老師發現了。
東ㄉㄨㄥ張ㄓㄤ西ㄒㄧ望ㄨㄤˋ	17. 請問「東張西望」是什麼意思呢？ (A) 向四周看，到處都看。 (B) 向東邊張嘴，向西邊看。

	18. 下午，小白和小黃比賽堆沙堡，看誰的沙堡更大更漂亮；比賽結束，兩座沙堡都很高很美，<u>不相上下</u>。
不ㄅㄨˋ相ㄒㄧㄤ上ㄕㄤˋ下ㄒㄧㄚˋ	18. 請問「不相上下」是什麼意思呢？ (A) 不比較誰在上面、誰在下面。 (B) 表現平手，沒有差別。
	19. 小白和小黃是好朋友，他們希望可以一直當好朋友，<u>天長地久</u>地一起玩。
天ㄊㄧㄢ長ㄔㄤˊ地ㄉㄧˋ久ㄐㄧㄡˇ	19. 請問「天長地久」是什麼意思呢？ (A) 永遠。 (B) 天和地存在很久了。
	20. 小白找到一個很好吃的黃金蛋，為了能一個人偷偷吃，他把金蛋藏起來，不讓別人看到，才不會<u>節外生枝</u>。

節ㄐㄧㄝ外ㄨㄞˋ生ㄕㄥ枝ㄓ	20. 請問「節外生枝」是什麼意思呢？ (A) 竹節外長出新的枝葉。 (B) 除了舊問題，又有新問題。
	21. 大黑最近常常來找小白玩，小白很煩惱：他擔心大黑是因為發現藏在床底下的金蛋，所以才別有用心地跑來，想要偷金蛋。
別ㄅㄧㄝˊ有ㄧㄡˇ用ㄩㄥˋ心ㄒㄧㄣ	21. 請問「別有用心」是什麼意思呢？ (A) 特別用心。 (B) 心中有不好的想法。
	22. 小黃好久沒見到小白了，他覺得小白好像故意躲著自己，沒有辦法，小黃只能望穿秋水，眼巴巴地等小白來找自己玩。
望ㄨㄤˋ穿ㄔㄨㄢ秋ㄑㄧㄡ水ㄕㄨㄟˇ	22. 請問「望穿秋水」是什麼意思呢？ (A) 像秋水的眼睛都要看出洞來了。 (B) 非常想念，一直在等某個人。

	23. 大黑很想吃金蛋，可是每次拿自己的大骨頭和小白交換，都沒有成功，於是大黑便想通過旁門左道偷走金蛋。
旁ㄆㄤˊ門ㄇㄣˊ左ㄗㄨㄛˇ道ㄉㄠˋ	23. 請問「旁門左道」是什麼意思呢？ (A) 不好、不正當的方法。 (B) 旁邊的小門，歪斜的道路。
	24. 金蛋不見了！小白生氣地和小黃吵架。後來，小黃幫忙找到金蛋，他們和好了，還心平氣和地一起吃金蛋。
心ㄒㄧㄣ平ㄆㄧㄥˊ氣ㄑㄧˋ和ㄏㄜˊ	24. 請問「心平氣和」是什麼意思呢？ (A) 心跳平順，呼吸緩慢。 (B) 心情平靜，和人好好相處。
	25. 小黃問小白：「我是不是因為吃了黃金蛋，毛才變成黃色？」小白說：「我也吃了金蛋，可是毛還是白色，沒有改變。」看來，吃了金蛋，毛會變色，只是小黃天馬行空的想像。

天ㄊㄧㄢ馬ㄇㄚˇ行ㄒㄧㄥˊ空ㄎㄨㄥ	25. 請問「天馬行空」是什麼意思呢？ (A) 神馬在天上行走奔跑。 (B) 腦中想的，不是真的發生。
	26. 小黃喜歡小白，寫了情書，連同玫瑰花和巧克力一起送給小白，可惜小白根本不懂什麼是風花雪月。
風ㄈㄥ花ㄏㄨㄚ雪ㄒㄩㄝˇ月ㄩㄝˋ	26. 請問「風花雪月」是什麼意思呢？ (A) 愛情。 (B) 涼風、花香、白雪、月光。
	27. 小白嘴上說巧克力不好吃，卻馬上把小黃送的所有巧克力都吃掉。小黃心想：小白明明很喜歡吃巧克力，卻還口是心非地說反話。
口ㄎㄡˇ是ㄕˋ心ㄒㄧㄣ非ㄈㄟ	27. 請問「口是心非」是什麼意思呢？ (A) 說的和想的不一樣。 (B) 嘴巴很好，心不好。

	28. 假日，小白和小黃想出去遊玩，但是因為疫情緩和，大家都開車出來旅遊透氣，有名的景點全部車水馬龍，擠得小黃都不耐煩了。
車ㄔㄜ水ㄕㄨㄟˇ馬ㄇㄚˇ龍ㄌㄨㄥˊ	28. 請問「車水馬龍」是什麼意思呢？ (A) 人很多，很熱鬧擁擠。 (B) 車子像水，馬兒像龍。
	29. 小白在山洞裡發現了很貴的鑽石，就想要拿走，小黃提醒小白：裡面危險，不要因為一時貪心，見錢眼開，最後受傷。
見ㄐㄧㄢˋ錢ㄑㄧㄢˊ眼ㄧㄢˇ開ㄎㄞ	29. 請問「見錢眼開」是什麼意思呢？ (A) 看到錢，眼睛變大。 (B) 只喜歡錢，其他都不管。
	30. 小白和小黃兩人從小一起長大，小黃家裡開麥當勞，小白家裡開便利商店，兩人門當戶對，十分相配。

門ㄇㄣˊ當ㄉㄤ戶ㄏㄨˋ對ㄉㄨㄟˋ	30. 請問「門當戶對」是什麼意思呢？ (A) 門和窗戶的大小、數量都一樣。 (B) 家裡一樣有錢，環境一樣好。
	31. 大黑跑來問小黃：知不知道金蛋在哪裡，小黃開門見山地說：金蛋被他和小白吃掉了。
開ㄎㄞ門ㄇㄣˊ見ㄐㄧㄢˋ山ㄕㄢ	31. 請問「開門見山」是什麼意思呢？ (A) 直接說重點。 (B) 打開門就看見山。
	32. 距離上次吃超級好吃的金蛋，已經過去好久了，小白每晚都夢到自己在吃金蛋，對金蛋的美味念念不忘。
念ㄋㄧㄢˋ念ㄋㄧㄢˋ不ㄅㄨˋ忘ㄨㄤˋ	32. 請問「念念不忘」是什麼意思呢？ (A) 一次又一次地想著，很難忘記。 (B) 口中一直念，不會忘記。

Expected answers:

Warm-up: A, Q17 – Q24: ABAB BBAB, Q25 – Q32: BAAA BBAA

Appendix G

Consent Forms

語言研究通知單

親愛的家長，您好：

我們將進行一項兒童母語的研究，希望貴子弟協助作答類似「語文理解」的題目。

我們的目的是研究兒童對於中文詞語的理解能力，研究方式將採用團體測驗，測驗過程會在孩子的學校教室進行，期間不會影響貴子弟的上課權益。

測驗研究時長約為十五分鐘，共包含兩部分，皆為詞語理解的選擇題。第一部分，孩子需從兩種不同的詞語意思中，選出他們第一個想到的意思，在學習單上圈選答案。第二部分，孩子會聽到一段故事，根據故事情節及插圖選出詞語意思。測驗結束，孩子能得到一份精美的文具小禮物。

本測驗結果僅供學術研究，貴子弟的個資，我們會嚴加保密，絕不洩漏。本研究的成果能夠提供教師日後教學參考，提昇孩子未來的學習品質。

本研究計畫，亟需各位家長的鼎力支持，懇請諸位同意孩子參與此研究，在此獻上我們最誠摯的感恩！

家長同意書

□ 同意孩子參加此研究　　□ 不同意孩子參加此研究

學生姓名：_____　家長簽名：_____

簽字日期：中華民國 _____ 年 _____ 月 _____ 日

若您與孩子同意參加此研究，請協助提供下列訊息：

- 孩子的年級: □二年級　□四年級　□六年級　□其他 _____
- 孩子的生日：民國_____年_____月
- 孩子出生時學的語言是：□中文　□台語　□客語　□其他 _____

感謝您與貴子弟的熱心參與！☺　敬祝

闔家安康　萬事順心

國立臺灣師範大學英語學系
指導教授／系主任 陳純音
語言學組 研究生 劉彥伶 敬上
中華民國壹百壹拾壹年拾月

語言研究同意書

親愛的同學，您好：

我們將進行一項詞語理解的研究，希望您協助作答類似「語文理解」的題目。

我們的目的是研究兒童對於中文詞語的理解能力，研究方式將採用團體測驗，測驗過程會在您的學校教室進行，期間不會影響您的上課權益。

測驗研究時長約為十五分鐘，共包含兩部分，皆為詞語理解的選擇題。第一部分，您需從兩種不同的詞語意思中，選出第一個想到的意思，在學習單上圈選答案。第二部分，您會聽到一段故事，根據故事情節及插圖選出詞語意思。測驗結束，您將獲得一份精美小禮物。

本測驗結果僅供學術研究，您的個資，我們會嚴加保密，絕不洩漏。本研究的成果能夠提供教師日後教學參考，提昇未來兒童的學習品質。

本研究計畫，亟需各位同學的鼎力支持，懇請諸位同意參與研究，在此獻上我們最誠摯的感恩！

□ 本人同意參加此研究

- 您的年級: □ 學士班_____年級 □ 碩士班 □ 博士班 □其他
- 您的生日：民國_____年_____月
- 您的母語：□中文 □台語 □客語 □其他 _____

學生姓名簽章：_____

簽字日期：中華民國 _____ 年 _____ 月 _____ 日

感謝您的熱心參與！☺ 敬祝

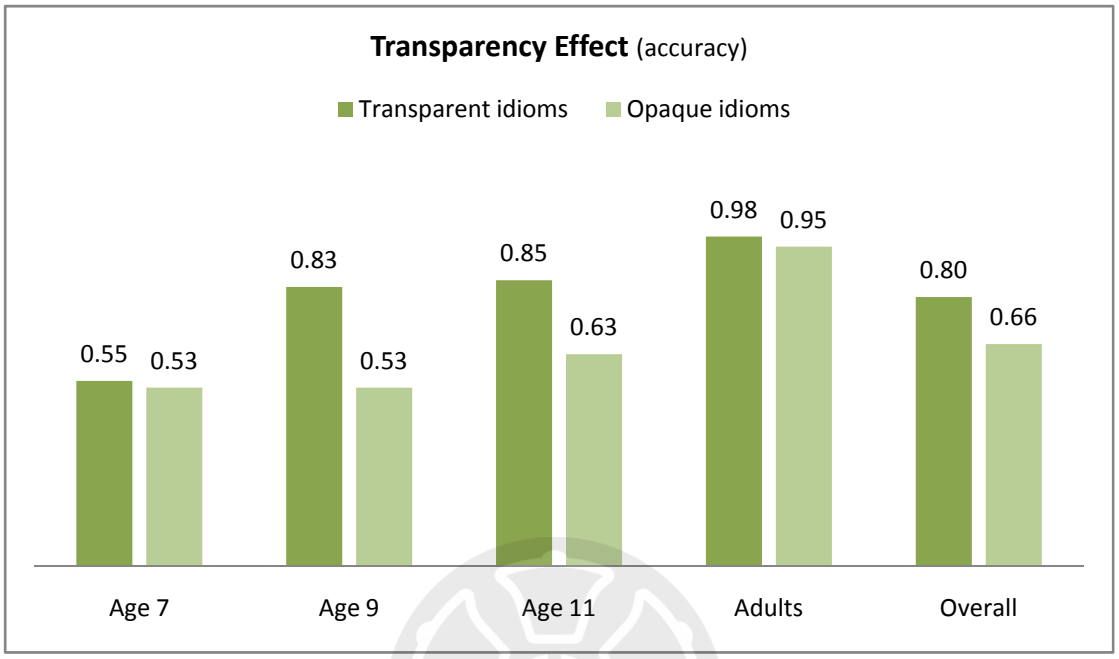
闔家安康 萬事順心

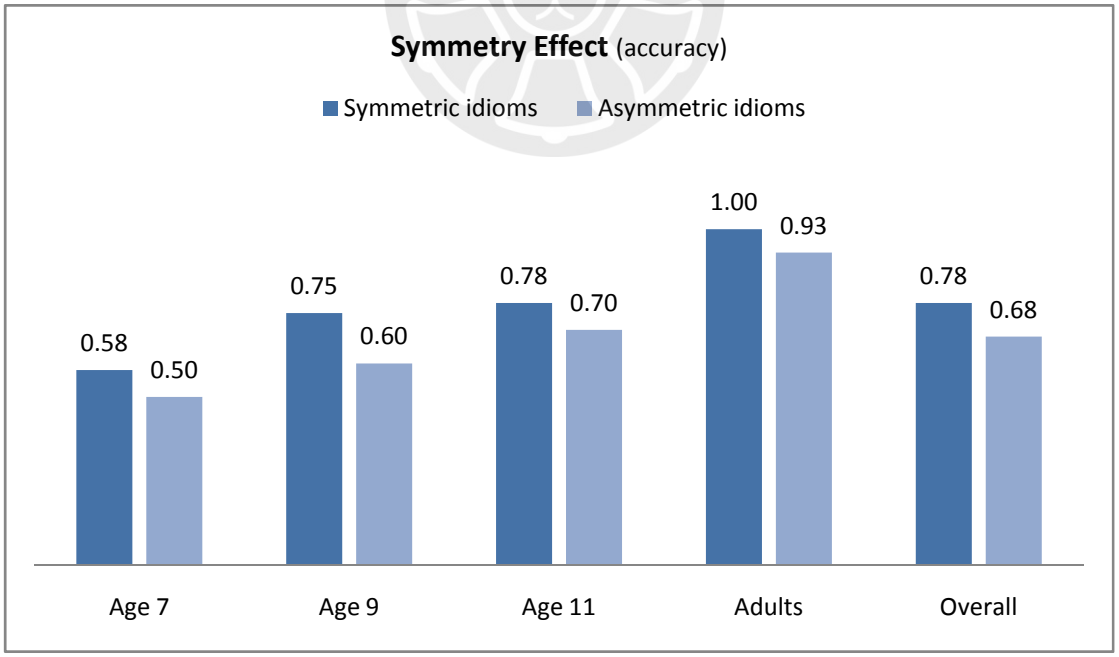
國立臺灣師範大學英語學系
指導教授／系主任 陳純音
語言學組 研究生 劉彥伶 敬上
中華民國壹百壹拾壹年拾月

Note: The first form is designed for children, and the second one is for adults.

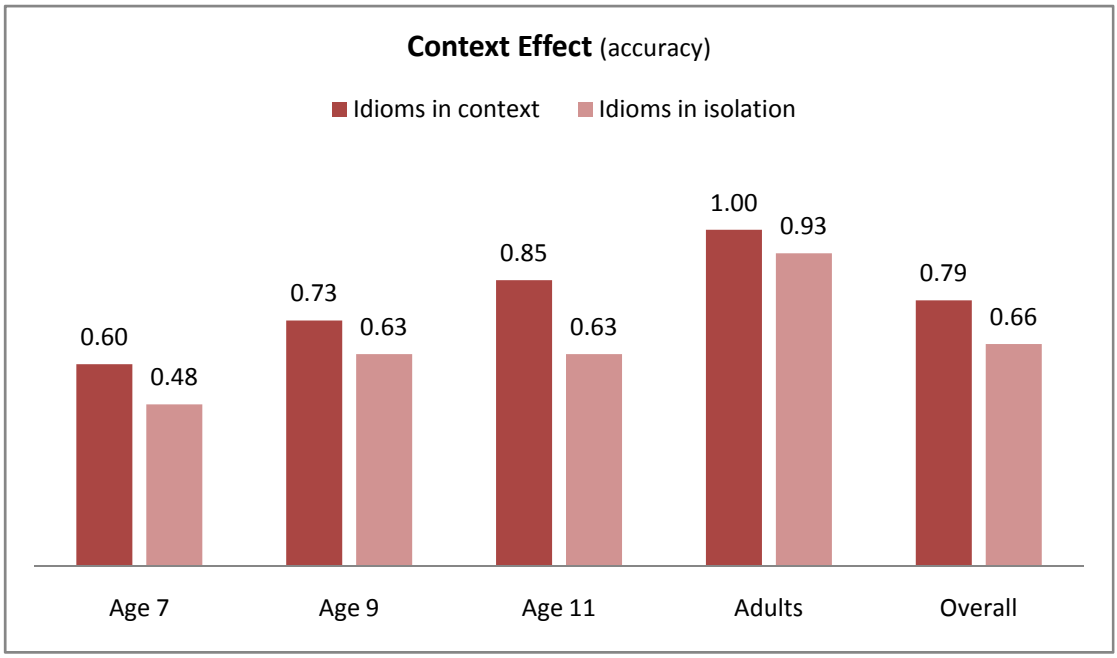
Appendix H

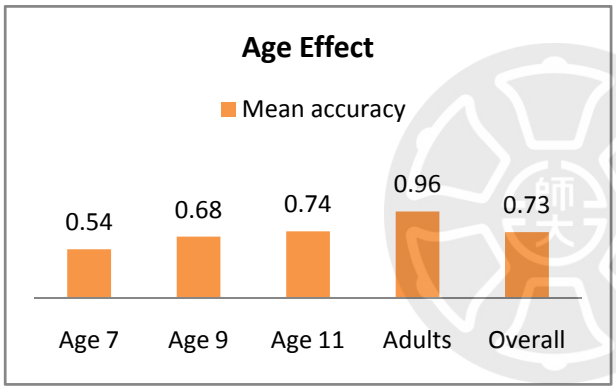
Results of the Pilot Study



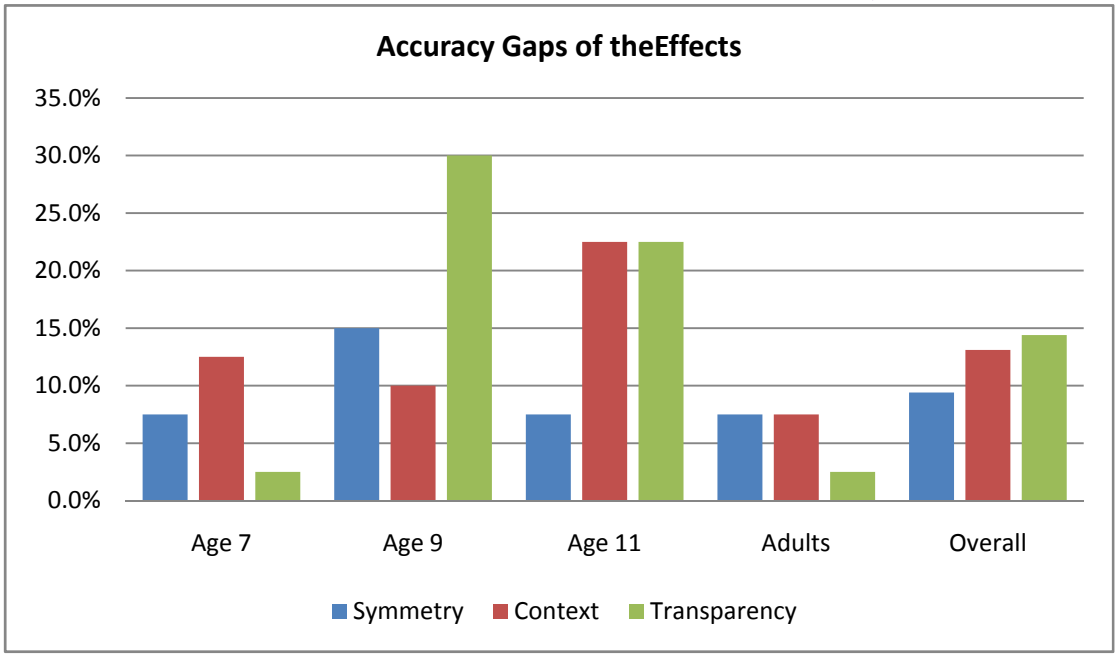


Note: The bar charts in this appendix merely portray mean response accuracy.





Note: The taller the bar is, the more effective the factor is. For example, the tallest green bar indicates the accuracy gap between transparent and opaque idiom comprehension by children at age 10; its height manifests its significance.



Appendix I

Difficulty Level of Component Characters in QIEs

最難漢字等級：基礎（P1）

NO.	成語	漢字難度				平均
1.	不上不下	P1	P1	P1	P1	0
2.	不見天日	P1	P1	P1	P1	0
3.	不知不覺	P1	P1	P1	P1	0
4.	元元本本	P1	P1	P1	P1	0
5.	月下老人	P1	P1	P1	P1	0
6.	可大可小	P1	P1	P1	P1	0
7.	沒大沒小	P1	P1	P1	P1	0

最難漢字等級：基礎（1, 1+）

NO.	成語	漢字難度				平均
8.	大有人在	P1	P1	P1	1	0.25
9.	大快人心	P1	P1	P1	1	0.25
10.	小家子氣	P1	P1	P1	1	0.25
11.	不可多得	P1	P1	P1	1	0.25
12.	不在話下	P1	1	P1	P1	0.25
13.	不明不白	P1	P1	P1	1	0.25
14.	今是昨非	P1	P1	P1	1	0.25
15.	生生不息	P1	P1	P1	1	0.25
16.	花前月下	1	P1	P1	P1	0.25
17.	長生不老	1	P1	P1	P1	0.25
18.	後會有期	P1	1	P1	P1	0.25
19.	能說會道	P1	P1	1	P1	0.25
20.	高高在上	P1	P1	1	P1	0.25
21.	謝天謝地	P1	P1	P1	1	0.25
22.	歡天喜地	P1	P1	P1	1	0.25
23.	人來人往	P1	P1	P1	1+	0.375
24.	小才大用	P1	1+	P1	P1	0.375
25.	不相上下	P1	1+	P1	P1	0.375
26.	天下太平	P1	P1	P1	1+	0.375
27.	少年老成	P1	P1	P1	1+	0.375
28.	好大喜功	P1	P1	P1	1+	0.375
29.	如日中天	1+	P1	P1	P1	0.375
30.	快人快語	P1	P1	P1	1+	0.375
31.	前思後想	P1	1+	P1	P1	0.375
32.	重見天日	1+	P1	P1	P1	0.375

最難漢字等級：基礎（1, 1+）

NO.	成語	漢字難度				平均
33.	現身說法	P1	1+	P1	P1	0.375
34.	眼明手快	1+	P1	P1	P1	0.375
35.	山高水長	1	P1	P1	1	0.5
36.	天下為公	P1	P1	1	1	0.5
37.	天長地久	P1	1	1	P1	0.5
38.	月黑風高	P1	1	1	P1	0.5
39.	以文會友	P1	1	1	P1	0.5
40.	自以為是	1	P1	1	P1	0.5
41.	別有用心	1	P1	P1	1	0.5
42.	坐吃山空	P1	P1	1	1	0.5
43.	走馬看花	P1	1	P1	1	0.5
44.	前因後果	P1	1	P1	1	0.5
45.	黑白分明	1	1	P1	P1	0.5
46.	頭頭是道	1	1	P1	P1	0.5
47.	人山人海	P1	1	P1	1+	0.625
48.	人之常情	P1	P1	1	1+	0.625
49.	人去樓空	P1	P1	1+	1	0.625
50.	大喜過望	P1	P1	1	1+	0.625
51.	不以為然	P1	P1	1	1+	0.625
52.	不可開交	P1	P1	1	1+	0.625
53.	不省人事	P1	1+	P1	1	0.625
54.	天地不容	P1	1	P1	1+	0.625
55.	少不更事	P1	P1	1+	1	0.625
56.	文不對題	1	P1	P1	1+	0.625
57.	水火不容	P1	1	P1	1+	0.625
58.	以和為貴	P1	P1	1	1+	0.625
59.	沒頭沒腦	P1	1	P1	1+	0.625
60.	見機行事	P1	P1	1+	1	0.625
61.	見錢眼開	P1	P1	1+	1	0.625
62.	兒女情長	P1	P1	1+	1	0.625
63.	明日黃花	P1	P1	1+	1	0.625
64.	東張西望	P1	1	P1	1+	0.625
65.	家常便飯	P1	1	1+	P1	0.625
66.	喜出望外	P1	1	1+	P1	0.625
67.	遠走高飛	1+	P1	P1	1	0.625

最難漢字等級：基礎（1, 1+）						
NO.	成語	漢字難度				平均
68.	口是心非	1	P1	1	1	0.75
69.	小時了了	P1	P1	1+	1+	0.75
70.	小題大做	P1	1+	P1	1+	0.75
71.	不盡人情	P1	1+	P1	1+	0.75
72.	不識大體	P1	1+	P1	1+	0.75
73.	以身試法	P1	1+	1+	P1	0.75
74.	出人頭地	1	P1	1	1	0.75
75.	事在人為	1	1	P1	1	0.75
76.	來來往往	P1	P1	1+	1+	0.75
77.	花花公子	1	1	1	P1	0.75
78.	時來運轉	P1	P1	1+	1+	0.75
79.	國色天香	P1	1+	P1	1+	0.75
80.	就地正法	1	1	1	P1	0.75
81.	開門見山	1	1	P1	1	0.75
82.	難能可貴	1+	P1	P1	1+	0.75
83.	口快心直	1	P1	1	1+	0.875
84.	天馬行空	P1	1	1+	1	0.875
85.	心平氣和	1	1+	1	P1	0.875
86.	心直口快	1	1+	1	P1	0.875
87.	左思右想	1	1+	1	P1	0.875
88.	白紙黑字	1	1+	1	P1	0.875
89.	念念不忘	1	1	P1	1+	0.875
90.	空空如也	1	1	1+	P1	0.875
91.	紅男綠女	1	1	1+	P1	0.875
92.	紅顏知己	1	1+	P1	1	0.875
93.	旁門左道	1+	1	1	P1	0.875
94.	真相大白	1	1+	P1	1	0.875
95.	得心應手	1	1	1+	P1	0.875
96.	教學相長	1	P1	1+	1	0.875
97.	習以為常	1+	P1	1	1	0.875
98.	意氣用事	1+	1	P1	1	0.875
99.	心服口服	1	1	1	1	1
100.	比手畫腳	1	P1	1+	1+	1
101.	牛刀小試	1	1+	P1	1+	1
102.	牛頭馬面	1	1	1	1	1
103.	如魚得水	1+	1+	1	P1	1
104.	有口難言	P1	1	1+	1+	1
105.	言聽計從	1+	P1	1+	1	1

最難漢字等級：基礎（1, 1+）						
NO.	成語	漢字難度				平均
106.	春花秋月	1+	1	1+	P1	1
107.	哭笑不得	1+	1+	P1	1	1
108.	馬到成功	1	P1	1+	1+	1
109.	意在言外	1+	1	1+	P1	1
110.	不動聲色	P1	1+	1+	1+	1.125
111.	公事公辦	1	1	1	1+	1.125
112.	片言隻字	1+	1+	1+	P1	1.125
113.	左右為難	1	1	1	1+	1.125
114.	平分秋色	1+	P1	1+	1+	1.125
115.	平易近人	1+	1+	1+	P1	1.125
116.	所作所為	1	1+	1	1	1.125
117.	動手動腳	1+	P1	1+	1+	1.125
118.	望穿秋水	1+	1+	1+	P1	1.125
119.	歡聲笑語	P1	1+	1+	1+	1.125
120.	口口聲聲	1	1	1+	1+	1.25
121.	化雨春風	1+	1	1+	1	1.25
122.	自言自語	1	1+	1	1+	1.25
123.	春風化雨	1+	1	1+	1	1.25
124.	春風得意	1+	1	1	1+	1.25
125.	息息相關	1	1	1+	1+	1.25
126.	紙短情長	1+	1	1+	1	1.25
127.	語重心長	1+	1+	1	1	1.25
128.	全心全意	1+	1	1+	1+	1.375
129.	回心轉意	1+	1	1+	1+	1.375
130.	種瓜得瓜	1+	1+	1	1+	1.375
131.	雞飛狗跳	1+	1	1+	1+	1.375
132.	冷言冷語	1+	1+	1+	1+	1.5

最難漢字等級：基礎（2, 2+）						
NO.	成語	漢字難度				平均
133.	明知故問	P1	P1	2	P1	0.5
134.	不聞不問	P1	2+	P1	P1	0.625
135.	少見多怪	P1	P1	P1	2+	0.625
136.	可有可無	P1	P1	P1	2+	0.625
137.	坐立不安	P1	2+	P1	P1	0.625
138.	後來居上	P1	P1	2+	P1	0.625
139.	美中不足	P1	P1	P1	2+	0.625
140.	無中生有	2+	P1	P1	P1	0.625

最難漢字等級：基礎（2, 2+）							最難漢字等級：基礎（2, 2+）						
NO.	成語	漢字難度				平均	NO.	成語	漢字難度				平均
141.	無話可說	2+	P1	P1	P1	0.625	179.	無言以對	2+	1+	P1	P1	1
142.	好景不常	P1	2	P1	1	0.75	180.	視同兒戲	1+	P1	P1	2+	1
143.	物是人非	2	P1	P1	1	0.75	181.	視而不見	1+	2+	P1	P1	1
144.	節外生枝	2	P1	P1	1	0.75	182.	裡應外合	P1	1+	P1	2+	1
145.	滿心歡喜	2	1	P1	P1	0.75	183.	力不能支	2	P1	P1	2+	1.125
146.	人誰無過	P1	P1	2+	1	0.875	184.	山光水色	1	2	P1	1+	1.125
147.	下不為例	P1	P1	1	2+	0.875	185.	月白風清	P1	1	1	2+	1.125
148.	不共戴天	P1	1	2+	P1	0.875	186.	出人意表	1	P1	1+	2	1.125
149.	不通人情	P1	2	P1	1+	0.875	187.	出其不意	1	2	P1	1+	1.125
150.	天從人願	P1	1	P1	2+	0.875	188.	冰天雪地	1+	P1	2	1	1.125
151.	世風日下	2+	1	P1	P1	0.875	189.	多如牛毛	P1	1+	1	2	1.125
152.	以己度人	P1	1	2+	P1	0.875	190.	自力更生	1	2	1+	P1	1.125
153.	正大光明	1+	P1	2	P1	0.875	191.	自給自足	1	P1	1	2+	1.125
154.	光天化日	2	P1	1+	P1	0.875	192.	所見所聞	1	P1	1	2+	1.125
155.	光明正大	2	P1	1+	P1	0.875	193.	知足常樂	P1	2+	1	1	1.125
156.	車水馬龍	P1	P1	1	2+	0.875	194.	花天酒地	1	P1	2+	1	1.125
157.	明月清風	P1	P1	2+	1	0.875	195.	高風亮節	P1	1	1+	2	1.125
158.	情有可原	1+	P1	P1	2	0.875	196.	答非所問	2+	1	1	P1	1.125
159.	樂不可支	1	P1	P1	2+	0.875	197.	想入非非	P1	2+	1	1	1.125
160.	舊雨新知	2+	1	P1	P1	0.875	198.	溫故知新	2+	2	P1	P1	1.125
161.	刀下留人	1+	P1	2+	P1	1	199.	遊山玩水	2+	1	1	P1	1.125
162.	力不從心	2	P1	1	1	1	200.	人死留名	P1	2+	2+	P1	1.25
163.	不合時宜	P1	2+	P1	1+	1	201.	人非木石	P1	1	2	2	1.25
164.	不知輕重	P1	P1	2+	1+	1	202.	文人相輕	1	P1	1+	2+	1.25
165.	分工合作	P1	P1	2+	1+	1	203.	水火無情	P1	1	2+	1+	1.25
166.	生不如死	P1	P1	1+	2+	1	204.	火上加油	1	P1	1+	2+	1.25
167.	安步當車	P1	2+	1+	P1	1	205.	以牙還牙	P1	2	1	2	1.25
168.	有利可圖	P1	2+	P1	1+	1	206.	以身相許	P1	1+	1+	2	1.25
169.	你死我活	P1	2+	P1	1+	1	207.	生離死別	P1	1+	2+	1	1.25
170.	念念有詞	1	1	P1	2	1	208.	汗如雨下	2+	1+	1	P1	1.25
171.	雨過天青	1	1	P1	2	1	209.	自作聰明	1	1+	2+	P1	1.25
172.	度日如年	2+	P1	1+	P1	1	210.	自得其樂	1	1	2	1	1.25
173.	風花雪月	1	1	2	P1	1	211.	低聲下氣	2+	1+	P1	1	1.25
174.	原原本本	2	2	P1	P1	1	212.	沒沒無聞	P1	P1	2+	2+	1.25
175.	酒肉朋友	2+	1+	P1	P1	1	213.	迎頭趕上	1+	1	2+	P1	1.25
176.	情同手足	1+	P1	P1	2+	1	214.	門當戶對	1	1+	2+	P1	1.25
177.	眼高手低	1+	P1	P1	2+	1	215.	青黃不接	2	1+	P1	1+	1.25
178.	游山玩水	2	1	1	P1	1	216.	相安無事	1+	P1	2+	1	1.25

最難漢字等級：基礎（2, 2+）						
NO.	成語	漢字難度				平均
217.	相親相愛	1+	2	1+	P1	1.25
218.	苦中作樂	2+	P1	1+	1	1.25
219.	食不知味	2+	P1	P1	2+	1.25
220.	起死回生	1	2+	1+	P1	1.25
221.	無奇不有	2+	2+	P1	P1	1.25
222.	無法無天	2+	P1	2+	P1	1.25
223.	電光火石	P1	2	1	2	1.25
224.	聽而不聞	P1	2+	P1	2+	1.25
225.	人心向背	P1	1	2	2+	1.375
226.	大功告成	P1	1+	2+	1+	1.375
227.	不成體統	P1	1+	1+	2+	1.375
228.	毛手毛腳	2	P1	2	1+	1.375
229.	牙牙學語	2	2	P1	1+	1.375
230.	功成不居	1+	1+	P1	2+	1.375
231.	瓜田李下	1+	2	2	P1	1.375
232.	有氣無力	P1	1	2+	2	1.375
233.	信口開河	1+	1	1	2	1.375
234.	急轉直下	2+	1+	1+	P1	1.375
235.	春風滿面	1+	1	2	1	1.375
236.	望子成龍	1+	P1	1+	2+	1.375
237.	無所事事	2+	1	1	1	1.375
238.	無能為力	2+	P1	1	2	1.375
239.	無師自通	2+	P1	1	2	1.375
240.	畫龍點睛	1+	2+	P1	1+	1.375
241.	間不容髮	1+	P1	1+	2+	1.375
242.	滿面春風	2	1	1+	1	1.375
243.	親上加親	2	P1	1+	2	1.375
244.	應對如流	1+	P1	1+	2+	1.375
245.	人情世故	P1	1+	2+	2	1.5
246.	不足為奇	P1	2+	1	2+	1.5
247.	不務正業	P1	2+	1	2+	1.5
248.	天助自助	P1	2+	1	2+	1.5
249.	火樹銀花	1	1+	2+	1	1.5
250.	父子相傳	2	P1	1+	2+	1.5
251.	出生入死	1	P1	2+	2+	1.5
252.	冰雪聰明	1+	2	2+	P1	1.5
253.	足不出戶	2+	P1	1	2+	1.5
254.	金石為開	2	2	1	1	1.5

最難漢字等級：基礎（2, 2+）						
NO.	成語	漢字難度				平均
255.	原封不動	2	2+	P1	1+	1.5
256.	病從口入	1+	1	1	2+	1.5
257.	掉以輕心	2+	P1	2+	1	1.5
258.	無地自容	2+	1	1	1+	1.5
259.	超然物外	2+	1+	2	P1	1.5
260.	鐵樹開花	2+	1+	1	1	1.5
261.	手無寸鐵	P1	2+	1+	2+	1.625
262.	交頭接耳	1+	1	1+	2+	1.625
263.	成家立業	1+	P1	2+	2+	1.625
264.	自食其果	1	2+	2	1	1.625
265.	自然而然	1	1+	2+	1+	1.625
266.	身體力行	1+	1+	2	1+	1.625
267.	花言巧語	1	1+	2+	1+	1.625
268.	花香鳥語	1	1+	2+	1+	1.625
269.	南船北馬	1+	2+	1+	1	1.625
270.	流水無情	2+	P1	2+	1+	1.625
271.	草草了事	2	2	1+	1	1.625
272.	酒足飯飽	2+	2+	P1	1+	1.625
273.	鳥語花香	2+	1+	1	1+	1.625
274.	無出其右	2+	1	2	1	1.625
275.	楚楚動人	2+	2+	1+	P1	1.625
276.	對答如流	P1	2+	1+	2+	1.625
277.	滿城風雨	2	2+	1	1	1.625
278.	滿園春色	2	1+	1+	1+	1.625
279.	頭重腳輕	1	1+	1+	2+	1.625
280.	心如鐵石	1	1+	2+	2	1.75
281.	心滿意足	1	2	1+	2+	1.75
282.	斤斤計較	2	2	1+	1+	1.75
283.	各行各業	1+	1+	1+	2+	1.75
284.	奇貨可居	2+	2	P1	2+	1.75
285.	易地而處	1+	1	2+	2	1.75
286.	花花世界	1	1	2+	2+	1.75
287.	單刀直入	1+	1+	1+	2+	1.75
288.	燈紅酒綠	2	1	2+	1+	1.75
289.	如意算盤	1+	1+	2	2+	1.875
290.	弄假成真	2+	2+	1+	1	1.875
291.	健步如飛	2+	2+	1+	1	1.875
292.	飲酒作樂	2+	2+	1+	1	1.875

最難漢字等級：基礎（2, 2+）						
NO.	成語	漢字難度				平均
293.	聞風而起	2+	1	2+	1+	1.875
294.	舊地重遊	2+	1	1+	2+	1.875
295.	舊事重提	2+	1	1+	2+	1.875
296.	變化無常	2+	1+	2+	1	1.875
297.	冷冷清清	1+	1+	2+	2+	2
298.	言而無信	1+	2+	2+	1+	2
299.	急功近利	2+	1+	1+	2+	2
300.	故步自封	2	2+	1	2+	2
301.	通力合作	2	2	2+	1+	2
302.	結結巴巴	2	2	2	2	2
303.	聞雞起舞	2+	1+	1+	2+	2
304.	林林總總	2	2	2+	2+	2.25

最難漢字等級：基礎（3, 3+）						
NO.	成語	漢字難度				平均
305.	不由分說	P1	3	P1	P1	0.75
306.	大材小用	P1	3+	P1	P1	0.875
307.	大呼小叫	P1	3+	P1	P1	0.875
308.	先見之明	P1	P1	3+	P1	0.875
309.	有機可乘	P1	P1	P1	3+	0.875
310.	來歷不明	P1	3+	P1	P1	0.875
311.	知人之明	P1	P1	3+	P1	0.875
312.	話不投機	P1	P1	3+	P1	0.875
313.	不得要領	P1	1	P1	3	1
314.	元氣大傷	P1	1	P1	3	1
315.	分文不取	P1	1	P1	3	1
316.	水土不服	P1	3	P1	1	1
317.	名花有主	P1	1	P1	3	1
318.	因小失大	1	P1	3	P1	1
319.	衣不解帶	1	P1	3	P1	1
320.	知過能改	P1	1	P1	3	1
321.	花好月圓	1	P1	P1	3	1
322.	樂天知命	1	P1	P1	3	1
323.	不可救藥	P1	P1	3	1+	1.125
324.	人人自危	P1	P1	1	3+	1.125
325.	人命關天	P1	3	1+	P1	1.125
326.	大器晚成	P1	3	P1	1+	1.125
327.	不打自招	P1	P1	1	3+	1.125
328.	反老還童	P1	P1	1	3+	1.125

最難漢字等級：基礎（3, 3+）						
NO.	成語	漢字難度				平均
329.	文以載道	1	P1	3+	P1	1.125
330.	日麗風和	P1	3+	1	P1	1.125
331.	以人為鏡	P1	P1	1	3+	1.125
332.	半推半就	P1	3+	P1	1	1.125
333.	有始有終	P1	1+	P1	3	1.125
334.	有條有理	P1	1+	P1	3	1.125
335.	自知之明	1	P1	3+	P1	1.125
336.	見所未見	P1	1	3+	P1	1.125
337.	杯水車薪	1	P1	P1	3+	1.125
338.	空前絕後	1	P1	3+	P1	1.125
339.	風和日麗	1	P1	P1	3+	1.125
340.	愛民如子	P1	3	1+	P1	1.125
341.	談天說地	3+	P1	P1	1	1.125
342.	鏡花水月	3+	1	P1	P1	1.125
343.	上行下效	P1	1+	P1	3+	1.25
344.	不可思議	P1	P1	1+	3+	1.25
345.	不知進退	P1	P1	1+	3+	1.25
346.	分門別類	P1	1	1	3	1.25
347.	心安理得	1	P1	3	1	1.25
348.	半信半疑	P1	1+	P1	3+	1.25
349.	打抱不平	P1	3+	P1	1+	1.25
350.	多才多藝	P1	1+	P1	3+	1.25
351.	成人之美	1+	P1	3+	P1	1.25
352.	我行我素	P1	1+	P1	3+	1.25
353.	技不如人	3+	P1	1+	P1	1.25
354.	改名換姓	3	P1	2	P1	1.25
355.	改過自新	3	1	1	P1	1.25
356.	見多識廣	P1	P1	1+	3+	1.25
357.	知書達禮	P1	P1	3+	1+	1.25
358.	相持不下	1+	3+	P1	P1	1.25
359.	高朋滿座	P1	P1	2	3	1.25
360.	偷天換日	3	P1	2	P1	1.25
361.	大失所望	P1	3	1	1+	1.375
362.	大街小巷	P1	2	P1	3+	1.375
363.	不出所料	P1	1	1	3+	1.375
364.	不約而同	P1	3	2+	P1	1.375
365.	不期而遇	P1	P1	2+	3	1.375
366.	及時行樂	3	P1	1+	1	1.375
367.	反客為主	P1	1+	1	3	1.375
368.	天經地義	P1	1+	1	3	1.375

最難漢字等級：基礎（3, 3+）						
NO.	成語	漢字難度				平均
369.	心神不定	1	3	P1	1+	1.375
370.	水生火熱	P1	3	1	1+	1.375
371.	據為己有	3+	1	1	P1	1.375
372.	目中無人	3	P1	2+	P1	1.375
373.	休養生息	1	3+	P1	1	1.375
374.	先發制人	P1	2	3+	P1	1.375
375.	好自為之	P1	1	1	3+	1.375
376.	有名無實	P1	P1	2+	3	1.375
377.	投石問路	3+	2	P1	P1	1.375
378.	見死不救	P1	2+	P1	3	1.375
379.	身不由己	1+	P1	3	1	1.375
380.	面不改色	1	P1	3	1+	1.375
381.	真才實學	1	1+	3	P1	1.375
382.	神氣活現	3	1	1+	P1	1.375
383.	望文生義	1+	1	P1	3	1.375
384.	終身大事	3	1+	P1	1	1.375
385.	喜新厭舊	P1	P1	3	2+	1.375
386.	游手好閒	2	P1	P1	3+	1.375
387.	當頭棒喝	1+	1	3	P1	1.375
388.	過目不忘	1	3	P1	1+	1.375
389.	據為己有	3+	1	1	P1	1.375
390.	人中之龍	P1	P1	3+	2+	1.5
391.	久而久之	P1	2+	P1	3+	1.5
392.	大驚小怪	P1	3+	P1	2+	1.5
393.	子子孫孫	P1	P1	3	3	1.5
394.	小康之家	P1	2+	3+	P1	1.5
395.	不自量力	P1	1	3	2	1.5
396.	不時之需	P1	P1	3+	2+	1.5
397.	不學無術	P1	P1	2+	3+	1.5
398.	不歡而散	P1	P1	2+	3+	1.5
399.	化為烏有	1+	1	3+	P1	1.5
400.	心如止水	1	1+	3+	P1	1.5
401.	心術不正	1	3+	P1	1+	1.5
402.	以退為進	P1	3+	1	1+	1.5
403.	以淚洗面	P1	3+	1+	1	1.5
404.	外圓內方	P1	3	2	1	1.5
405.	目不轉睛	3	P1	1+	1+	1.5
406.	各持己見	1+	3+	1	P1	1.5
407.	多事之秋	P1	1	3+	1+	1.5
408.	老老實實	P1	P1	3	3	1.5

最難漢字等級：基礎（3, 3+）						
NO.	成語	漢字難度				平均
409.	自不量力	1	P1	3	2	1.5
410.	自由自在	1	3	1	1	1.5
411.	自圓其說	1	3	2	P1	1.5
412.	至高無上	3+	P1	2+	P1	1.5
413.	冷暖自知	1+	3+	1	P1	1.5
414.	形影不離	3	1+	P1	1+	1.5
415.	忘乎所以	1+	3+	1	P1	1.5
416.	沒齒難忘	P1	3	1+	1+	1.5
417.	走投無路	P1	3+	2+	P1	1.5
418.	夜以繼日	2+	P1	3+	P1	1.5
419.	花容月貌	1	1+	P1	3+	1.5
420.	指天畫地	3+	P1	1+	1	1.5
421.	得過且過	1	1	3	1	1.5
422.	粗心大意	3+	1	P1	1+	1.5
423.	終身不忘	3	1+	P1	1+	1.5
424.	善男信女	3+	1	1+	P1	1.5
425.	富貴在天	3+	1+	1	P1	1.5
426.	就事論事	1	1	3	1	1.5
427.	意有所指	1+	P1	1	3+	1.5
428.	當家作主	1+	P1	1+	3	1.5
429.	遊手好閒	2+	P1	P1	3+	1.5
430.	輕車熟路	2+	P1	3+	P1	1.5
431.	熟能生巧	3+	P1	P1	2+	1.5
432.	養家活口	3+	P1	1+	1	1.5
433.	樹大招風	1+	P1	3+	1	1.5
434.	獨步天下	3+	2+	P1	P1	1.5
435.	轉危為安	1+	3+	1	P1	1.5
436.	難分難解	1+	P1	1+	3	1.5
437.	聽天由命	P1	P1	3	3	1.5
438.	驚天動地	3+	P1	1+	1	1.5
439.	人情冷暖	P1	1+	1+	3+	1.625
440.	不了了之	P1	1+	1+	3+	1.625
441.	不計其數	P1	1+	2	3	1.625
442.	手忙腳亂	P1	1+	1+	3+	1.625
443.	他山之石	P1	1	3+	2	1.625
444.	以身作則	P1	1+	1+	3+	1.625
445.	以貌取人	P1	3+	3	P1	1.625
446.	民不聊生	3	P1	3+	P1	1.625
447.	任重道遠	3+	1+	P1	1+	1.625
448.	先入為主	P1	2+	1	3	1.625

最難漢字等級：基礎（3, 3+）						
NO.	成語	漢字難度				平均
449.	同病相憐	P1	1+	1+	3+	1.625
450.	名正言順	P1	1+	1+	3+	1.625
451.	地大物博	1	P1	2	3+	1.625
452.	有求必應	P1	3	2	1+	1.625
453.	老成持重	P1	1+	3+	1+	1.625
454.	自作自受	1	1+	1	3	1.625
455.	忘年之交	1+	P1	3+	1+	1.625
456.	投其所好	3+	2	1	P1	1.625
457.	更上層樓	1+	P1	3+	1+	1.625
458.	言外之意	1+	P1	3+	1+	1.625
459.	言多必失	1+	P1	2	3	1.625
460.	勇往直前	3+	1+	1+	P1	1.625
461.	指手畫腳	3+	P1	1+	1+	1.625
462.	面目全非	1	3	1+	1	1.625
463.	差強人意	1+	3+	P1	1+	1.625
464.	素不相識	3+	P1	1+	1+	1.625
465.	將心比心	3+	1	1	1	1.625
466.	強顏歡笑	3+	1+	P1	1+	1.625
467.	深入人心	3	2+	P1	1	1.625
468.	滿不在乎	2	P1	1	3+	1.625
469.	禍不單行	3+	P1	1+	1+	1.625
470.	禍從口出	3+	1	1	1	1.625
471.	德高望重	3+	P1	1+	1+	1.625
472.	興師動眾	1+	P1	1+	3+	1.625
473.	應對進退	1+	P1	1+	3+	1.625
474.	難兄難弟	1+	3+	1+	P1	1.625
475.	寸步不離	3	2+	P1	1+	1.75
476.	不由自主	P1	3	1	3	1.75
477.	不著邊際	P1	2	1+	3+	1.75
478.	天生麗質	P1	P1	3+	3+	1.75
479.	心心相印	1	1	1+	3+	1.75
480.	兄友弟恭	3+	P1	P1	3+	1.75
481.	出口成章	1	1	1+	3+	1.75
482.	可乘之機	P1	3+	3+	P1	1.75
483.	平心靜氣	1+	1	3+	1	1.75
484.	生龍活虎	P1	2+	1+	3	1.75
485.	各式各樣	1+	3	1+	1	1.75
486.	各自為政	1+	1	1	3+	1.75
487.	安身立命	P1	1+	2+	3	1.75
488.	有眼無珠	P1	1+	2+	3	1.75

最難漢字等級：基礎（3, 3+）						
NO.	成語	漢字難度				平均
489.	自討沒趣	1	3+	P1	2+	1.75
490.	行雲流水	1+	3	2+	P1	1.75
491.	何去何從	3	P1	3	1	1.75
492.	坐享其成	P1	3+	2	1+	1.75
493.	改頭換面	3	1	2	1	1.75
494.	見利忘義	P1	2+	1+	3	1.75
495.	言之有物	1+	3+	P1	2	1.75
496.	身外之物	1+	P1	3+	2	1.75
497.	命中注定	3	P1	2+	1+	1.75
498.	夜長夢多	2+	1	3+	P1	1.75
499.	玩世不恭	1	2+	P1	3+	1.75
500.	知人善任	P1	P1	3+	3+	1.75
501.	門戶之見	1	2+	3+	P1	1.75
502.	前所未聞	P1	1	3+	2+	1.75
503.	眉開眼笑	3	1	1+	1+	1.75
504.	突如其來	3+	1+	2	P1	1.75
505.	借刀殺人	2+	1+	3	P1	1.75
506.	害人害己	3	P1	3	1	1.75
507.	得意忘形	1	1+	1+	3	1.75
508.	從長計議	1	1	1+	3+	1.75
509.	惜字如金	3+	P1	1+	2	1.75
510.	殺人如麻	3	P1	1+	2+	1.75
511.	深更半夜	3	1+	P1	2+	1.75
512.	理所當然	3	1	1+	1+	1.75
513.	眾所周知	3+	1	2+	P1	1.75
514.	粗中有細	3+	P1	P1	3+	1.75
515.	粗茶淡飯	3+	P1	3+	P1	1.75
516.	細水長流	3+	P1	1	2+	1.75
517.	普天同慶	3+	P1	P1	3+	1.75
518.	無人之地	2+	P1	3+	1	1.75
519.	無可救藥	2+	P1	3	1+	1.75
520.	痛改前非	3	3	P1	1	1.75
521.	飽食終日	1+	2+	3	P1	1.75
522.	實事求是	3	1	3	P1	1.75
523.	隨機應變	3	P1	1+	2+	1.75
524.	騎虎難下	2+	3	1+	P1	1.75
525.	顧名思義	2+	P1	1+	3	1.75
526.	力爭上游	2	3+	P1	2	1.875
527.	大而化之	P1	2+	1+	3+	1.875
528.	寸草不留	3	2	P1	2+	1.875

最難漢字等級：基礎（3, 3+）						
NO.	成語	漢字難度				平均
529.	天作之合	P1	2+	3+	1+	1.875
530.	心驚肉跳	1	3+	1+	1+	1.875
531.	手足之情	P1	2+	3+	1+	1.875
532.	方寸大亂	1	3	P1	3+	1.875
533.	生死之交	P1	2+	3+	1+	1.875
534.	目不識丁	3	P1	1+	3	1.875
535.	各為其主	1+	1	2	3	1.875
536.	如數家珍	1+	3	P1	3	1.875
537.	求之不得	3	3+	P1	1	1.875
538.	冷眼旁觀	1+	1+	1+	3	1.875
539.	見義勇為	P1	3	3+	1	1.875
540.	言不及義	1+	P1	3	3	1.875
541.	言過其實	1+	1	2	3	1.875
542.	取信於人	3	1+	3	P1	1.875
543.	居安思危	2+	P1	1+	3+	1.875
544.	物換星移	2	2	P1	3+	1.875
545.	知難而退	P1	1+	2+	3+	1.875
546.	金童玉女	2	3+	2	P1	1.875
547.	長篇大論	1	3+	P1	3	1.875
548.	急起直追	2+	P1	1+	3+	1.875
549.	按部就班	3+	1+	1	1+	1.875
550.	洗耳恭聽	1+	2+	3+	P1	1.875
551.	為之動容	1	3+	1+	1+	1.875
552.	苦口婆心	2+	1	3	1	1.875
553.	重修舊好	1+	3+	2+	P1	1.875
554.	將計就計	3+	1+	1	1+	1.875
555.	將錯就錯	3+	1+	1	1+	1.875
556.	推己及人	3+	1	3	P1	1.875
557.	喜形於色	P1	3	3	1+	1.875
558.	無以復加	2+	P1	3+	1+	1.875
559.	量入為出	3	2+	1	1	1.875
560.	飲水思源	2+	P1	1+	3+	1.875
561.	當機立斷	1+	P1	2+	3+	1.875
562.	物美價廉	2	P1	3	2+	1.875
563.	興風作浪	1+	1	1+	3+	1.875
564.	變本加厲	2+	P1	1+	3+	1.875
565.	口無煩言	1	2+	3	1+	2
566.	大驚失色	P1	3+	3	1+	2
567.	山珍海味	1	3	1+	2+	2
568.	不敗之地	P1	3+	3+	1	2

最難漢字等級：基礎（3, 3+）						
NO.	成語	漢字難度				平均
569.	不厭其煩	P1	3	2	3	2
570.	天造地設	P1	3+	1	3+	2
571.	出神入化	1	3	2+	1+	2
572.	功成身退	1+	1+	1+	3+	2
573.	左鄰右舍	1	3+	1	2+	2
574.	平心而論	1+	1	2+	3	2
575.	本性難移	P1	3	1+	3+	2
576.	石破天驚	2	2+	P1	3+	2
577.	耳聰目明	2+	2+	3	P1	2
578.	至理明言	3+	3	P1	1+	2
579.	血氣方剛	3+	1	1	2+	2
580.	行將就木	1+	3+	1	2	2
581.	更深人靜	1+	3	P1	3+	2
582.	呼天搶地	3+	P1	3+	1	2
583.	妻離子散	3	1+	P1	3+	2
584.	始料不及	1+	3+	P1	3	2
585.	爭風吃醋	3+	1	P1	3+	2
586.	流離失所	2+	1+	3	1	2
587.	眉飛色舞	3	1	1+	2+	2
588.	突發奇想	3+	2	2+	P1	2
589.	神來之筆	3	P1	3+	1+	2
590.	得天獨厚	1	P1	3+	3+	2
591.	深信不疑	3	1+	P1	3+	2
592.	移花接木	3+	1	1+	2	2
593.	粗枝大葉	3+	1	P1	3+	2
594.	脫口而出	3+	1	2+	1	2
595.	設身處地	3+	1+	2	1	2
596.	悶悶不樂	3+	3+	P1	1	2
597.	無心之過	2+	1	3+	1	2
598.	意味深長	1+	2+	3	1	2
599.	精打細算	2+	P1	3+	2	2
600.	層出不窮	3+	1	P1	3+	2
601.	糖衣毒藥	2	1	3+	1+	2
602.	舉世聞名	3	2+	2+	P1	2
603.	寸步難行	3	2+	1+	1+	2.125
604.	不速之客	P1	3+	3+	1+	2.125
605.	心亂如麻	1	3+	1+	2+	2.125
606.	充耳不聞	3+	2+	P1	2+	2.125
607.	史無前例	3+	2+	P1	2+	2.125
608.	目光如豆	3	2	1+	2	2.125

最難漢字等級：基礎（3, 3+）							最難漢字等級：基礎（3, 3+）						
NO.	成語	漢字難度				平均	NO.	成語	漢字難度				平均
609.	同流合汙	P1	2+	2+	3+	2.125	649.	深居簡出	3	2+	2+	1	2.25
610.	如此而已	1+	3	2+	1+	2.125	650.	貨真價實	2	1	3	3	2.25
611.	成何體統	1+	3	1+	2+	2.125	651.	痛定思痛	3	1+	1+	3	2.25
612.	死不足惜	2+	P1	2+	3+	2.125	652.	量力而行	3	2	2+	1+	2.25
613.	死無對證	2+	2+	P1	3+	2.125	653.	開源節流	1	3+	2	2+	2.25
614.	舍近求遠	2+	1+	3	1+	2.125	654.	傷天害理	3	P1	3	3	2.25
615.	花枝招展	1	1	3+	3	2.125	655.	腳踏實地	1+	3+	3	1	2.25
616.	金枝玉葉	2	1	2	3+	2.125	656.	調虎離山	3+	3	1+	1	2.25
617.	青出於藍	2	1	3	2+	2.125	657.	舉手投足	3	P1	3+	2+	2.25
618.	風雲際會	1	3	3+	1	2.125	658.	才華蓋世	1+	2	3+	2+	2.375
619.	氣味相投	1	2+	1+	3+	2.125	659.	不求甚解	P1	3	3+	3	2.375
620.	神通廣大	3	2	3+	P1	2.125	660.	以此類推	P1	3	3	3+	2.375
621.	從善如流	1	3+	1+	2+	2.125	661.	成群結隊	1+	3+	2	2+	2.375
622.	排山倒海	2+	1	3+	1+	2.125	662.	死於非命	2+	3	1	3	2.375
623.	陰錯陽差	3+	1+	2	1+	2.125	663.	血流成河	3+	2+	1+	2	2.375
624.	就地取材	1	1	3	3+	2.125	664.	束手無策	3+	P1	2+	3+	2.375
625.	愛屋及烏	P1	2	3	3+	2.125	665.	受制於人	3	3+	3	P1	2.375
626.	楚楚可憐	2+	2+	P1	3+	2.125	666.	金玉滿堂	2	2	2	3+	2.375
627.	源遠流長	3+	1+	2+	1	2.125	667.	冒名頂替	2+	P1	3+	3+	2.375
628.	過眼雲煙	1	1+	3	3	2.125	668.	品頭論足	3	1	3	2+	2.375
629.	飽學之士	1+	P1	3+	3+	2.125	669.	風平浪靜	1	1+	3+	3+	2.375
630.	獨來獨往	3+	P1	3+	1+	2.125	670.	風華絕代	1	2	3+	3	2.375
631.	隨遇而安	3	3	2+	P1	2.125	671.	格格不入	3+	3+	P1	2+	2.375
632.	薪火相傳	3+	1	1+	2+	2.125	672.	氣極敗壞	1	2+	3+	2+	2.375
633.	顧影自憐	2+	1+	1	3+	2.125	673.	偷雞摸狗	3	1+	3+	1+	2.375
634.	不足掛齒	P1	2+	3+	3	2.25	674.	移山倒海	3+	1	3+	1+	2.375
635.	分秒必爭	P1	3+	2	3+	2.25	675.	普度眾生	3+	2+	3+	P1	2.375
636.	心煩意亂	1	3	1+	3+	2.25	676.	察言觀色	3+	1+	3	1+	2.375
637.	方寸之間	1	3	3+	1+	2.25	677.	聞所未聞	2+	1	3+	2+	2.375
638.	火燒眉毛	1	3	3	2	2.25	678.	輕而易舉	2+	2+	1+	3	2.375
639.	如影隨形	1+	1+	3	3	2.25	679.	談何容易	3+	3	1+	1+	2.375
640.	羊入虎口	2+	2+	3	1	2.25	680.	適可而止	3+	P1	2+	3+	2.375
641.	耳提面命	2+	2+	1	3	2.25	681.	醉生夢死	3+	P1	3+	2+	2.375
642.	形形色色	3	3	1+	1+	2.25	682.	獨木難支	3+	2	1+	2+	2.375
643.	投機取巧	3+	P1	3	2+	2.25	683.	險象環生	3	3	3+	P1	2.375
644.	拍案叫絕	2	3+	P1	3+	2.25	684.	頭破血流	1	2+	3+	2+	2.375
645.	風調雨順	1	3+	1	3+	2.25	685.	舉足輕重	3	2+	2+	1+	2.375
646.	堂堂正正	3+	3+	1	1	2.25	686.	豐衣足食	3+	1	2+	2+	2.375
647.	得寸進尺	1	3	1+	3+	2.25	687.	察言觀色	3+	1+	3	1+	2.375
648.	情投意合	1+	3+	1+	2+	2.25	688.	大夢初醒	P1	3+	3	3+	2.5

最難漢字等級：基礎（3, 3+）

NO.	成語	漢字難度				平均
689.	功德圓滿	1+	3+	3	2	2.5
690.	回味無窮	1+	2+	2+	3+	2.5
691.	血流如注	3+	2+	1+	2+	2.5
692.	其利斷金	2	2+	3+	2	2.5
693.	周而復始	2+	2+	3+	1+	2.5
694.	物極必反	2	3	2	3	2.5
695.	為民除害	1	3	3	3	2.5
696.	重溫舊夢	1+	2+	2+	3+	2.5
697.	食言而肥	2+	1+	2+	3+	2.5
698.	倒背如流	3+	2+	1+	2+	2.5
699.	臭味相投	2+	2+	1+	3+	2.5
700.	偷工減料	3	P1	3+	3+	2.5
701.	望而卻步	1+	2+	3+	2+	2.5
702.	當務之急	1+	2+	3+	2+	2.5
703.	總而言之	2+	2+	1+	3+	2.5
704.	大庭廣眾	P1	3+	3+	3+	2.625
705.	汗牛充棟	2+	1	3+	3+	2.625
706.	相提並論	1+	2+	3+	3	2.625
707.	乘人之危	3+	P1	3+	3+	2.625
708.	乘風破浪	3+	1	2+	3+	2.625
709.	破鏡重圓	2+	3+	1+	3	2.625
710.	紙醉金迷	1+	3+	2	3+	2.625
711.	源源不斷	3+	3+	P1	3+	2.625
712.	貌合神離	3+	2+	3	1+	2.625
713.	憐香惜玉	3+	1+	3+	2	2.625
714.	談虎色變	3+	3	1+	2+	2.625
715.	獨善其身	3+	3+	2	1+	2.625
716.	舉目無親	3	3	2+	2	2.625
717.	夫唱婦隨	3	1+	3+	3	2.75
718.	怪力亂神	2+	2	3+	3	2.75
719.	抱薪救火	3+	3+	3	1	2.75
720.	虎入羊群	3	2+	2	3+	2.75
721.	害群之馬	3	3+	3+	1	2.75
722.	無理取鬧	2+	3	3	2+	2.75
723.	義無反顧	3	2+	3	2+	2.75
724.	載歌載舞	3+	1+	3+	2+	2.75
725.	歷歷在目	3+	3+	1	3	2.75
726.	豐功偉業	3+	1+	3+	2+	2.75
727.	力排眾議	2	2+	3+	3+	2.875
728.	如夢初醒	1+	3+	3	3+	2.875

最難漢字等級：基礎（3, 3+）

NO.	成語	漢字難度				平均
729.	始亂終棄	1+	3+	3	3+	2.875
730.	咬牙切齒	3+	2	3	3	2.875
731.	挑燈夜戰	3+	2	2+	3+	2.875
732.	剪草除根	3+	2	3	3	2.875
733.	順理成章	3+	3	1+	3+	2.875
734.	鼠目寸光	3+	3	3	2	2.875
735.	數典忘祖	3	3+	1+	3+	2.875
736.	引經據典	3+	1+	3+	3+	3
737.	何足掛齒	3	2+	3+	3	3
738.	乳臭未乾	3+	2+	3+	2+	3
739.	取而代之	3	2+	3	3+	3
740.	急流勇退	2+	2+	3+	3+	3
741.	乾乾淨淨	2+	2+	3+	3+	3
742.	將信將疑	3+	1+	3+	3+	3
743.	煙消雲散	3	2+	3	3+	3
744.	群龍無首	3+	2+	2+	3+	3
745.	價值連城	3	3+	3	2+	3
746.	獨斷專行	3+	3+	3+	1+	3
747.	街談巷議	2	3+	3+	3+	3.125
748.	技藝超群	3+	3+	2+	3+	3.25
749.	烏合之眾	3+	2+	3+	3+	3.25
750.	斷章取義	3+	3+	3	3	3.25
751.	雜亂無章	3+	3+	2+	3+	3.25

最難漢字等級：進階（4）

NO.	成語	漢字難度				平均	進階
752.	不可明狀	P1	P1	P1	4	1	*
753.	古今中外	4	P1	P1	P1	1	*
754.	有錢有勢	P1	P1	P1	4	1	*
755.	知法犯法	P1	P1	4	P1	1	*
756.	家道中落	P1	P1	P1	4	1	*
757.	時不我與	P1	P1	P1	4	1	*
758.	人心不古	P1	1	P1	4	1.25	*
759.	人模人樣	P1	4	P1	1	1.25	*
760.	大模大樣	P1	4	P1	1	1.25	*
761.	小人得志	P1	P1	1	4	1.25	*
762.	不能自拔	P1	P1	1	4	1.25	*
763.	安分守己	P1	P1	4	1	1.25	*
764.	能文能武	P1	1	P1	4	1.25	*

最難漢字等級：進階（4）

NO.	成語	漢字難度				平均	進階
765.	悲從中來	4	1	P1	P1	1.25	*
766.	紫氣東來	4	1	P1	P1	1.25	*
767.	膽大包天	4	P1	1	P1	1.25	*
768.	人定勝天	P1	1+	4	P1	1.375	*
769.	大勢已去	P1	4	1+	P1	1.375	*
770.	才子佳人	1+	P1	4	P1	1.375	*
771.	古往今來	4	1+	P1	P1	1.375	*
772.	先禮後兵	P1	1+	P1	4	1.375	*
773.	吉人天相	4	P1	P1	1+	1.375	*
774.	見財起意	P1	4	P1	1+	1.375	*
775.	高抬貴手	P1	4	1+	P1	1.375	*
776.	尊師重道	4	P1	1+	P1	1.375	*
777.	黃道吉日	1+	P1	4	P1	1.375	*
778.	勢不可當	4	P1	P1	1+	1.375	*
779.	福星高照	4	P1	P1	1+	1.375	*
780.	聚少成多	4	P1	1+	P1	1.375	*
781.	興師問罪	1+	P1	P1	4	1.375	*
782.	見微知著	P1	4	P1	2	1.5	*
783.	人面桃花	P1	1	4	1	1.5	*
784.	江河日下	4	2	P1	P1	1.5	*
785.	明知故犯	P1	P1	2	4	1.5	*
786.	美不勝收	P1	P1	4	2	1.5	*
787.	風吹雨打	1	4	1	P1	1.5	*
788.	天下無敵	P1	P1	2+	4	1.625	*
789.	心照不宣	1	1+	P1	4	1.625	*
790.	老馬識途	P1	1	1+	4	1.625	*
791.	老眼昏花	P1	1+	4	1	1.625	*
792.	志同道合	4	P1	P1	2+	1.625	*
793.	居高臨下	2+	P1	4	P1	1.625	*
794.	是非曲直	P1	1	4	1+	1.625	*
795.	為人作嫁	1	P1	1+	4	1.625	*
796.	若有所思	4	P1	1	1+	1.625	*
797.	情不自禁	1+	P1	1	4	1.625	*
798.	鹿死誰手	4	2+	P1	P1	1.625	*
799.	勢如水火	4	1+	P1	1	1.625	*
800.	微不足道	4	P1	2+	P1	1.625	*
801.	暗無天日	4	2+	P1	P1	1.625	*
802.	罪有應得	4	P1	1+	1	1.625	*

最難漢字等級：進階（4）

NO.	成語	漢字難度				平均	進階
803.	不可勝數	P1	P1	4	3	1.75	*
804.	水落石出	P1	4	2	1	1.75	*
805.	以禮相待	P1	1+	1+	4	1.75	*
806.	叫苦連天	P1	4	3	P1	1.75	*
807.	坐井觀天	P1	4	3	P1	1.75	*
808.	法網難逃	P1	1+	1+	4	1.75	*
809.	貪小失大	4	P1	3	P1	1.75	*
810.	新陳代謝	P1	4	3	P1	1.75	*
811.	當仁不讓	1+	4	P1	1+	1.75	*
812.	賞心樂事	4	1	1	1	1.75	*
813.	歡聲雷動	P1	1+	4	1+	1.75	*
814.	人多勢眾	P1	P1	4	3+	1.875	*
815.	大公無私	P1	1	2+	4	1.875	*
816.	川流不息	4	2+	P1	1	1.875	*
817.	地動山搖	1	1+	1	4	1.875	*
818.	似是而非	4	P1	2+	1	1.875	*
819.	爭先恐後	3+	P1	4	P1	1.875	*
820.	待人接物	4	P1	1+	2	1.875	*
821.	指日可待	3+	P1	P1	4	1.875	*
822.	流水落花	2+	P1	4	1	1.875	*
823.	真心誠意	1	1	4	1+	1.875	*
824.	能者多勞	P1	3+	P1	4	1.875	*
825.	富可敵國	3+	P1	4	P1	1.875	*
826.	嫁禍他人	4	3+	P1	P1	1.875	*
827.	落花流水	4	1	2+	P1	1.875	*
828.	稱兄道弟	4	3+	P1	P1	1.875	*
829.	與眾不同	4	3+	P1	P1	1.875	*
830.	頭昏眼花	1	4	1+	1	1.875	*
831.	人微言輕	P1	4	1+	2+	2	*
832.	片甲不留	1+	4	P1	2+	2	*
833.	守正不阿	4	1+	P1	2+	2	*
834.	江山如畫	4	1	1+	1+	2	*
835.	自求多福	1	3	P1	4	2	*
836.	志在必得	4	1	2	1	2	*
837.	於心不忍	3	1	P1	4	2	*
838.	虎口逃生	3	1	4	P1	2	*
839.	食古不化	2+	4	P1	1+	2	*
840.	旁若無人	1+	4	2+	P1	2	*

最難漢字等級：進階（4）

NO.	成語	漢字難度				平均	進階
841.	神出鬼沒	3	1	4	P1	2	*
842.	張口結舌	1	1	2	4	2	*
843.	貪生怕死	4	P1	1+	2+	2	*
844.	旁若無人	1+	4	2+	P1	2	*
845.	悲歡離合	4	P1	1+	2+	2	*
846.	稱心如意	4	1	1+	1+	2	*
847.	與民同樂	4	3	P1	1	2	*
848.	樂極生悲	1	3	P1	4	2	*
849.	臨機應變	4	P1	1+	2+	2	*
850.	變化多端	2+	1+	P1	4	2	*
851.	俗不可耐	4	P1	P1	4	2	**
852.	人強馬壯	P1	3+	1	4	2.125	*
853.	人窮志短	P1	3+	4	1	2.125	*
854.	不識抬舉	P1	1+	4	3	2.125	*
855.	反敗為勝	P1	3+	1	4	2.125	*
856.	如花似玉	1+	1	4	2	2.125	*
857.	年輕力壯	P1	2+	2	4	2.125	*
858.	自私自利	1	4	1	2+	2.125	*
859.	志得意滿	4	1	1+	2	2.125	*
860.	招兵買馬	3+	4	P1	1	2.125	*
861.	為富不仁	1	3+	P1	4	2.125	*
862.	風吹草動	1	4	2	1+	2.125	*
863.	博古通今	2+	4	2	P1	2.125	*
864.	狼子野心	4	P1	3+	1	2.125	*
865.	推陳出新	3+	4	1	P1	2.125	*
866.	麻木不仁	2+	2	P1	4	2.125	*
867.	湖光山色	4	2	1	1+	2.125	*
868.	勢在必行	4	1	2	1+	2.125	*
869.	膽大心細	4	P1	1	3+	2.125	*
870.	舉棋不定	3	4	P1	1+	2.125	*
871.	大權旁落	P1	3+	1+	4	2.25	*
872.	仁民愛物	4	3	P1	2	2.25	*
873.	公正無私	1	1+	2+	4	2.25	*
874.	末路窮途	1+	P1	3+	4	2.25	*
875.	守口如瓶	4	1	1+	2+	2.25	*
876.	把酒臨風	1+	2+	4	1	2.25	*
877.	物以類聚	2	P1	3	4	2.25	*
878.	按兵不動	3+	4	P1	1+	2.25	*

最難漢字等級：進階（4）

NO.	成語	漢字難度				平均	進階
879.	紙上談兵	1+	P1	3+	4	2.25	*
880.	酒色財氣	2+	1+	4	1	2.25	*
881.	堅定不移	4	1+	P1	3+	2.25	*
882.	張燈結彩	1	2	2	4	2.25	*
883.	望洋心嘆	1+	2+	1	4	2.25	*
884.	勞師動眾	4	P1	1+	3+	2.25	*
885.	無孔不入	2+	4	P1	2+	2.25	*
886.	照本宣科	1+	P1	4	3+	2.25	*
887.	落葉知秋	4	3+	P1	1+	2.25	*
888.	道貌岸然	P1	3+	4	1+	2.25	*
889.	窮途末路	3+	4	1+	P1	2.25	*
890.	餐風露宿	1+	1	4	2+	2.25	*
891.	膽小如鼠	4	P1	1+	3+	2.25	*
892.	避重就輕	4	1+	1	2+	2.25	*
893.	寶刀未老	4	1+	3+	P1	2.25	*
894.	天昏地暗	P1	4	1	4	2.25	**
895.	弱不禁風	4	P1	4	1	2.25	**
896.	落落大方	4	4	P1	1	2.25	**
897.	才思敏捷	1+	1+	4	2+	2.375	*
898.	仁者樂山	4	3+	1	1	2.375	*
899.	巧言令色	2+	1+	4	1+	2.375	*
900.	打草驚蛇	P1	2	3+	4	2.375	*
901.	因禍得福	1	3+	1	4	2.375	*
902.	守望相助	4	1+	1+	2+	2.375	*
903.	身臨其境	1+	4	2	2	2.375	*
904.	所向無敵	1	2	2+	4	2.375	*
905.	拔刀相助	4	1+	1+	2+	2.375	*
906.	狗急跳牆	1+	2+	1+	4	2.375	*
907.	指鹿為馬	3+	4	1	1	2.375	*
908.	若無其事	4	2+	2	1	2.375	*
909.	神不守舍	3	P1	4	2+	2.375	*
910.	神色自若	3	1+	1	4	2.375	*
911.	理直氣壯	3	1+	1	4	2.375	*
912.	裝模作樣	2+	4	1+	1+	2.375	*
913.	井井有條	4	4	P1	1+	2.375	**
914.	如臨大敵	1+	4	P1	4	2.375	**
915.	有志竟成	P1	4	4	1+	2.375	**
916.	作惡多端	1+	4	P1	4	2.375	**

最難漢字等級：進階（4）									
NO.	成語	漢字難度				平均	進階		
917.	狗仗人勢	1+	4	P1	4	2.375	**		
918.	鬼計多端	4	1+	P1	4	2.375	**		
919.	引人入勝	3+	P1	2+	4	2.5	*		
920.	世外桃源	2+	P1	4	3+	2.5	*		
921.	令人髮指	4	P1	2+	3+	2.5	*		
922.	怪模怪樣	2+	4	2+	1	2.5	*		
923.	招搖過市	3+	4	1	1+	2.5	*		
924.	門庭若市	1	3+	4	1+	2.5	*		
925.	約定俗成	3	1+	4	1+	2.5	*		
926.	珠光寶氣	3	2	4	1	2.5	*		
927.	無微不至	2+	4	P1	3+	2.5	*		
928.	傳家之寶	2+	P1	3+	4	2.5	*		
929.	雷厲風行	4	3+	1	1+	2.5	*		
930.	與人為善	4	1+	1	3+	2.5	*		
931.	談笑自若	3+	1+	1	4	2.5	*		
932.	論功行賞	3	1+	1+	4	2.5	*		
933.	鐵面無私	2+	1	2+	4	2.5	*		
934.	歡欣鼓舞	P1	4	3+	2+	2.5	*		
935.	孔武有力	4	4	P1	2	2.5	**		
936.	落井下石	4	4	P1	2	2.5	**		
937.	匹夫有責	4	3	P1	3+	2.625	*		
938.	似曾相識	4	3+	1+	1+	2.625	*		
939.	身強體壯	1+	3+	1+	4	2.625	*		
940.	明珠暗投	P1	3	4	3+	2.625	*		
941.	鬼話連篇	4	P1	3	3+	2.625	*		
942.	盛情難卻	4	1+	1+	3+	2.625	*		
943.	貪得無厭	4	1	2+	3	2.625	*		
944.	街頭巷尾	2	1	3+	4	2.625	*		
945.	聚精會神	4	2+	1	3	2.625	*		
946.	戴罪立功	2+	4	2+	1+	2.625	*		
947.	吃苦耐勞	P1	2+	4	4	2.625	**		
948.	忍氣吞聲	4	1	4	1+	2.625	**		
949.	呆頭呆腦	4	1	4	1+	2.625	**		
950.	忍氣吞聲	4	1	4	1+	2.625	**		
951.	忍無可忍	4	2+	P1	4	2.625	**		
952.	昏頭昏腦	4	1	4	1+	2.625	**		
953.	鬼頭鬼腦	4	1	4	1+	2.625	**		
954.	惡有惡報	4	P1	4	2+	2.625	**		

最難漢字等級：進階（4）									
NO.	成語	漢字難度				平均	進階		
955.	升堂入室	4	3+	2+	1	2.75	*		
956.	引狼入室	3+	4	2+	1	2.75	*		
957.	明察暗訪	P1	3+	4	3+	2.75	*		
958.	昏迷不醒	4	3+	P1	3+	2.75	*		
959.	爭強好勝	3+	3+	P1	4	2.75	*		
960.	背景離鄉	2+	4	1+	3	2.75	*		
961.	首當其衝	3+	1+	2	4	2.75	*		
962.	棄暗投明	3+	4	3+	P1	2.75	*		
963.	富國強兵	3+	P1	3+	4	2.75	*		
964.	敬陪末座	4	2+	1+	3	2.75	*		
965.	敬業樂群	4	2+	1	3+	2.75	*		
966.	離鄉背井	1+	3	2+	4	2.75	*		
967.	古色古香	4	1+	4	1+	2.75	**		
968.	吉祥如意	4	4	1+	1+	2.75	**		
969.	罪大惡極	4	P1	4	3	2.75	**		
970.	入境隨俗	2+	2	3	4	2.875	*		
971.	必恭必敬	2	3+	2	4	2.875	*		
972.	冒險犯難	2+	3+	4	1+	2.875	*		
973.	原形畢露	2	3	2+	4	2.875	*		
974.	弱肉強食	4	1+	3+	2+	2.875	*		
975.	將功折罪	3+	1+	2+	4	2.875	*		
976.	眾志成城	3+	4	1+	2+	2.875	*		
977.	傷風敗俗	3	1	3+	4	2.875	*		
978.	勢如破竹	4	1+	2+	3+	2.875	*		
979.	敬而遠之	4	2+	1+	3+	2.875	*		
980.	嘆為觀止	4	1	3	3+	2.875	*		
981.	呆若木雞	4	4	2	1+	2.875	**		
982.	勝之不武	4	3+	P1	4	2.875	**		
983.	口舌之爭	1	4	3+	3+	3	*		
984.	投桃報李	3+	4	2+	2	3	*		
985.	奇形怪狀	2+	3	2+	4	3	*		
986.	門禁森嚴	1	4	3+	3+	3	*		
987.	穿針引線	1+	4	3+	3	3	*		
988.	鬼使神差	4	3+	3	1+	3	*		
989.	假仁假義	2+	4	2+	3	3	*		
990.	裝神弄鬼	2+	3	2+	4	3	*		
991.	漸入佳境	3+	2+	4	2	3	*		
992.	牛鬼蛇神	1	4	4	3	3	**		

最難漢字等級：進階（4）

NO.	成語	漢字難度				平均	進階
993.	虎頭蛇尾	3	1	4	4	3	**
994.	勞心勞力	4	2	4	2	3	**
995.	欣喜若狂	4	P1	4	4	3	***
996.	堅忍不拔	4	4	P1	4	3	***
997.	兵連禍結	4	3	3+	2	3.125	*
998.	與世無爭	4	2+	2+	3+	3.125	*
999.	仁心仁術	4	1	4	3+	3.125	**
1000.	如狼似虎	1+	4	4	3	3.125	**
1001.	兵強馬壯	4	3+	1	4	3.125	**
1002.	固若金湯	4	4	2	2+	3.125	**
1003.	無價之寶	2+	3	3+	4	3.25	*
1004.	刻苦耐勞	2+	2+	4	4	3.25	**
1005.	世態炎涼	2+	3+	4	3+	3.375	*
1006.	絲竹亂耳	4	3+	3+	2+	3.375	*
1007.	舉案齊眉	3	3+	4	3	3.375	*
1008.	微乎其微	4	3+	2	4	3.375	**
1009.	若即若離	4	4	4	1+	3.375	***
1010.	匹夫之勇	4	3	3+	3+	3.5	*
1011.	疑神疑鬼	3+	3	3+	4	3.5	*
1012.	勞民傷財	4	3	3	4	3.5	**
1013.	整整齊齊	3	3	4	4	3.5	**
1014.	匹夫匹婦	4	3	4	3+	3.625	**
1015.	招搖撞騙	3+	4	4	3+	3.75	**
1016.	臨陣脫逃	4	3+	3+	4	3.75	**

最難漢字等級：進階（5）

NO.	成語	漢字難度				平均	進階
1017.	日新月異	P1	P1	P1	5	1.25	*
1018.	水中撈月	P1	P1	5	P1	1.25	*
1019.	生不逢時	P1	P1	5	P1	1.25	*
1020.	好吃懶做	P1	P1	5	P1	1.25	*
1021.	坐不安席	P1	P1	P1	5	1.25	*
1022.	東奔西走	P1	5	P1	P1	1.25	*
1023.	皆大歡喜	5	P1	P1	P1	1.25	*
1024.	愛不釋手	P1	P1	5	P1	1.25	*
1025.	道聽塗說	P1	P1	5	P1	1.25	*
1026.	山明水秀	1	P1	P1	5	1.5	*
1027.	日薄西山	P1	5	P1	1	1.5	*

最難漢字等級：進階（5）

NO.	成語	漢字難度				平均	進階
1028.	好事多磨	P1	1	P1	5	1.5	*
1029.	安貧樂道	P1	5	1	P1	1.5	*
1030.	所見略同	1	P1	5	P1	1.5	*
1031.	知己知彼	P1	1	P1	5	1.5	*
1032.	異想天開	5	P1	P1	1	1.5	*
1033.	喜從天降	P1	1	P1	5	1.5	*
1034.	大顯身手	P1	5	1+	P1	1.625	*
1035.	不慌不忙	P1	5	P1	1+	1.625	*
1036.	日積月累	P1	5	P1	1+	1.625	*
1037.	以人廢言	P1	P1	5	1+	1.625	*
1038.	妙不可言	5	P1	P1	1+	1.625	*
1039.	相見恨晚	1+	P1	5	P1	1.625	*
1040.	時運不濟	P1	1+	P1	5	1.625	*
1041.	對症下藥	P1	5	P1	1+	1.625	*
1042.	積少成多	5	P1	1+	P1	1.625	*
1043.	積年累月	5	P1	1+	P1	1.625	*
1044.	應有盡有	1+	P1	5	P1	1.625	*
1045.	聲東擊西	1+	P1	5	P1	1.625	*
1046.	人面獸心	P1	1	5	1	1.75	*
1047.	不可收拾	P1	P1	2	5	1.75	*
1048.	今非昔比	P1	1	5	1	1.75	*
1049.	比比皆是	1	1	5	P1	1.75	*
1050.	以長補短	P1	1	5	1	1.75	*
1051.	空穴來風	1	5	P1	1	1.75	*
1052.	恰到好處	5	P1	P1	2	1.75	*
1053.	面面俱到	1	1	5	P1	1.75	*
1054.	風雨同舟	1	1	P1	5	1.75	*
1055.	風雨欲來	1	1	5	P1	1.75	*
1056.	息事寧人	1	1	5	P1	1.75	*
1057.	人心難測	P1	1	1+	5	1.875	*
1058.	口不擇言	1	P1	5	1+	1.875	*
1059.	小鳥依人	P1	2+	5	P1	1.875	*
1060.	才略過人	1+	5	1	P1	1.875	*
1061.	不無小補	P1	2+	P1	5	1.875	*
1062.	天羅地網	P1	5	1	1+	1.875	*
1063.	水漲船高	P1	5	2+	P1	1.875	*
1064.	名不虛傳	P1	P1	5	2+	1.875	*
1065.	老氣橫秋	P1	1	5	1+	1.875	*

最難漢字等級：進階（5）

NO.	成語	漢字難度				平均	進階
1066.	快馬加鞭	P1	1	1+	5	1.875	*
1067.	杜門謝客	5	1	P1	1+	1.875	*
1068.	牢不可破	5	P1	P1	2+	1.875	*
1069.	事不宜遲	1	P1	1+	5	1.875	*
1070.	事半功倍	1	P1	1+	5	1.875	*
1071.	來龍去脈	P1	2+	P1	5	1.875	*
1072.	迫不得已	5	P1	1	1+	1.875	*
1073.	家破人亡	P1	2+	P1	5	1.875	*
1074.	動彈不得	1+	5	P1	1	1.875	*
1075.	國破家亡	P1	2+	P1	5	1.875	*
1076.	從容不迫	1	1+	P1	5	1.875	*
1077.	異口同聲	5	1	P1	1+	1.875	*
1078.	無家可歸	2+	P1	P1	5	1.875	*
1079.	妙筆生花	5	1+	P1	1	1.875	*
1080.	愛莫能助	P1	5	P1	2+	1.875	*
1081.	漫不經心	5	P1	1+	1	1.875	*
1082.	水來土掩	P1	P1	3	5	2	*
1083.	同心協力	P1	1	5	2	2	*
1084.	名不副實	P1	P1	5	3	2	*
1085.	別出心裁	1	1	1	5	2	*
1086.	妙手回春	5	P1	1+	1+	2	*
1087.	秀色可餐	5	1+	P1	1+	2	*
1088.	良心發現	5	1	2	P1	2	*
1089.	為所欲為	1	1	5	1	2	*
1090.	時過境遷	P1	1	2	5	2	*
1091.	笑裡藏刀	1+	P1	5	1+	2	*
1092.	國泰民安	P1	5	3	P1	2	*
1093.	深不可測	3	P1	P1	5	2	*
1094.	掌上明珠	5	P1	P1	3	2	*
1095.	痛不欲生	3	P1	5	P1	2	*
1096.	愚不可及	5	P1	P1	3	2	*
1097.	禮尚往來	1+	5	1+	P1	2	*
1098.	難捨難分	1+	5	1+	P1	2	*
1099.	水滴石穿	P1	5	2	1+	2.125	*
1100.	人盡其才	P1	5	2	1+	2.125	*
1101.	口說無憑	1	P1	2+	5	2.125	*
1102.	子虛烏有	P1	5	3+	P1	2.125	*
1103.	不同凡響	P1	P1	5	3+	2.125	*

最難漢字等級：進階（5）

NO.	成語	漢字難度				平均	進階
1104.	不攻自破	P1	5	1	2+	2.125	*
1105.	不留餘地	P1	2+	5	1	2.125	*
1106.	不擇手段	P1	5	P1	3+	2.125	*
1107.	天之驕子	P1	3+	5	P1	2.125	*
1108.	天衣無縫	P1	1	2+	5	2.125	*
1109.	天災人禍	P1	5	P1	3+	2.125	*
1110.	心花怒放	1	1	5	1+	2.125	*
1111.	甘拜下風	5	2+	P1	1	2.125	*
1112.	石沉大海	2	5	P1	1+	2.125	*
1113.	同甘共苦	P1	5	1	2+	2.125	*
1114.	多多益善	P1	P1	5	3+	2.125	*
1115.	行有餘力	1+	P1	5	2	2.125	*
1116.	來者不拒	P1	3+	P1	5	2.125	*
1117.	居心不良	2+	1	P1	5	2.125	*
1118.	怡然自得	5	1+	1	1	2.125	*
1119.	東躲西藏	P1	3+	P1	5	2.125	*
1120.	花紅柳綠	1	1	5	1+	2.125	*
1121.	前呼後擁	P1	3+	P1	5	2.125	*
1122.	後起之秀	P1	P1	3+	5	2.125	*
1123.	恰如其分	5	1+	2	P1	2.125	*
1124.	洗心革面	1+	1	5	1	2.125	*
1125.	席地而坐	5	1	2+	P1	2.125	*
1126.	恩同再造	5	P1	P1	3+	2.125	*
1127.	從天而降	1	P1	2+	5	2.125	*
1128.	欲語還休	5	1+	1	1	2.125	*
1129.	閉門思過	5	1	1+	1	2.125	*
1130.	雪中送炭	2	P1	1+	5	2.125	*
1131.	騎驢找馬	2+	5	P1	1	2.125	*
1132.	揮之不去	5	3+	P1	P1	2.125	*
1133.	欺人太甚	5	P1	P1	3+	2.125	*
1134.	畫地為牢	1+	1	1	5	2.125	*
1135.	畫地自限	1+	1	1	5	2.125	*
1136.	損人利己	5	P1	2+	1	2.125	*
1137.	養兒防老	3+	P1	5	P1	2.125	*
1138.	繩之以法	5	3+	P1	P1	2.125	*
1139.	觸景生情	5	2	P1	1+	2.125	*
1140.	恩重如山	5	1+	1+	1	2.25	*
1141.	心如刀割	1	1+	1+	5	2.25	*

最難漢字等級：進階（5）

NO.	成語	漢字難度				平均	進階
1142.	心灰意冷	1	5	1+	1+	2.25	*
1143.	水性楊花	P1	3	5	1	2.25	*
1144.	自命不凡	1	3	P1	5	2.25	*
1145.	事過境遷	1	1	2	5	2.25	*
1146.	奔走相告	5	P1	1+	2+	2.25	*
1147.	舍本逐末	2+	P1	5	1+	2.25	*
1148.	青紅皂白	2	1	5	1	2.25	*
1149.	唯利是圖	5	2+	P1	1+	2.25	*
1150.	唯命是從	5	3	P1	1	2.25	*
1151.	捲土從來	5	3	1	P1	2.25	*
1152.	捨己救人	5	1	3	P1	2.25	*
1153.	殺人滅口	3	P1	5	1	2.25	*
1154.	無計可施	2+	1+	P1	5	2.25	*
1155.	發揚光大	2	5	2	P1	2.25	*
1156.	虛有其表	5	P1	2	2	2.25	*
1157.	費盡心機	3	5	1	P1	2.25	*
1158.	樂此不疲	1	3	P1	5	2.25	*
1159.	奮不顧身	5	P1	2+	1+	2.25	*
1160.	聲色犬馬	1+	1+	5	1	2.25	*
1161.	雞犬不留	1+	5	P1	2+	2.25	*
1162.	顯而易見	5	2+	1+	P1	2.25	*
1163.	人生朝露	P1	P1	5	4	2.25	**
1164.	大搖大擺	P1	4	P1	5	2.25	**
1165.	不置可否	P1	5	P1	4	2.25	**
1166.	異曲同工	5	4	P1	P1	2.25	**
1167.	賞罰分明	4	5	P1	P1	2.25	**
1168.	人仰馬翻	P1	5	1	3+	2.375	*
1169.	大張旗鼓	P1	1	5	3+	2.375	*
1170.	山窮水盡	1	3+	P1	5	2.375	*
1171.	內柔外剛	2	5	P1	2+	2.375	*
1172.	內剛外柔	2	2+	P1	5	2.375	*
1173.	反目成仇	P1	3	1+	5	2.375	*
1174.	心血來潮	1	3+	P1	5	2.375	*
1175.	自我陶醉	1	P1	5	3+	2.375	*
1176.	血口噴人	3+	1	5	P1	2.375	*
1177.	血盆大口	3+	5	P1	1	2.375	*
1178.	行不由徑	1+	P1	3	5	2.375	*
1179.	作壁上觀	1+	5	P1	3	2.375	*

最難漢字等級：進階（5）

NO.	成語	漢字難度				平均	進階
1180.	攻其不備	5	2	P1	2+	2.375	*
1181.	每下愈況	1	P1	5	3+	2.375	*
1182.	言歸於好	1+	5	3	P1	2.375	*
1183.	赤子之心	5	P1	3+	1	2.375	*
1184.	刮目相看	5	3	1+	P1	2.375	*
1185.	卷土重來	5	3	1+	P1	2.375	*
1186.	明哲保身	P1	5	3	1+	2.375	*
1187.	空口無憑	1	1	2+	5	2.375	*
1188.	免為其難	5	1	2	1+	2.375	*
1189.	面紅耳赤	1	1	2+	5	2.375	*
1190.	風雨無阻	1	1	2+	5	2.375	*
1191.	飛來橫禍	1	P1	5	3+	2.375	*
1192.	望眼欲穿	1+	1+	5	1+	2.375	*
1193.	閉門造車	5	1	3+	P1	2.375	*
1194.	暈頭轉向	5	1	1+	2	2.375	*
1195.	對簿公堂	P1	5	1	3+	2.375	*
1196.	禍從天降	3+	1	P1	5	2.375	*
1197.	寬大為懷	3+	P1	1	5	2.375	*
1198.	樂善好施	1	3+	P1	5	2.375	*
1199.	懷才不遇	5	1+	P1	3	2.375	*
1200.	贊不絕口	5	P1	3+	1	2.375	*
1201.	刀光劍影	1+	2	5	1+	2.5	*
1202.	大相徑庭	P1	1+	5	3+	2.5	*
1203.	大義滅親	P1	3	5	2	2.5	*
1204.	不謀而合	P1	5	2+	2+	2.5	*
1205.	分庭抗禮	P1	3+	5	1+	2.5	*
1206.	心甘情願	1	5	1+	2+	2.5	*
1207.	木已成舟	2	1+	1+	5	2.5	*
1208.	水乳交融	P1	3+	1+	5	2.5	*
1209.	本末倒置	P1	1+	3+	5	2.5	*
1210.	立地成佛	2+	1	1+	5	2.5	*
1211.	同床異夢	P1	1+	5	3+	2.5	*
1212.	名副其實	P1	5	2	3	2.5	*
1213.	回天乏術	1+	P1	5	3+	2.5	*
1214.	好色之徒	P1	1+	3+	5	2.5	*
1215.	老謀深算	P1	5	3	2	2.5	*
1216.	衣錦還鄉	1	5	1	3	2.5	*
1217.	攻無不克	5	2+	P1	2+	2.5	*

最難漢字等級：進階（5）

NO.	成語	漢字難度				平均	進階
1218.	取長補短	3	1	5	1	2.5	*
1219.	夜不閉戶	2+	P1	5	2+	2.5	*
1220.	明察秋毫	P1	3+	1+	5	2.5	*
1221.	泥牛入海	5	1	2+	1+	2.5	*
1222.	物美價廉	2	P1	3	5	2.5	*
1223.	空谷足音	1	5	2+	1+	2.5	*
1224.	前功盡棄	P1	1+	5	3+	2.5	*
1225.	怨聲載道	5	1+	3+	P1	2.5	*
1226.	胡思亂想	5	1+	3+	P1	2.5	*
1227.	面如死灰	1	1+	2+	5	2.5	*
1228.	海底撈月	1+	3+	5	P1	2.5	*
1229.	神機妙算	3	P1	5	2	2.5	*
1230.	胸有成竹	5	P1	1+	3+	2.5	*
1231.	捷足先登	2+	2+	P1	5	2.5	*
1232.	混水摸魚	5	P1	3+	1+	2.5	*
1233.	揮汗成雨	5	2+	1+	1	2.5	*
1234.	樂而忘返	1	2+	1+	5	2.5	*
1235.	隨心所欲	3	1	1	5	2.5	*
1236.	聲淚俱下	1+	3+	5	P1	2.5	*
1237.	天怒人怨	P1	5	P1	5	2.5	**
1238.	手不釋卷	P1	P1	5	5	2.5	**
1239.	仰天長嘆	5	P1	1	4	2.5	**
1240.	秀外慧中	5	P1	5	P1	2.5	**
1241.	良師益友	5	P1	5	P1	2.5	**
1242.	固執己見	4	5	1	P1	2.5	**
1243.	拖泥帶水	5	5	P1	P1	2.5	**
1244.	前後夾攻	P1	P1	5	5	2.5	**
1245.	怒氣沖天	5	1	4	P1	2.5	**
1246.	柳暗花明	5	4	1	P1	2.5	**
1247.	徒有虛名	5	P1	5	P1	2.5	**
1248.	恩怨分明	5	5	P1	P1	2.5	**
1249.	欲罷不能	5	5	P1	P1	2.5	**
1250.	慌不擇路	5	P1	5	P1	2.5	**
1251.	路不拾遺	P1	P1	5	5	2.5	**
1252.	蒸蒸日上	5	5	P1	P1	2.5	**
1253.	包藏禍心	1	5	3+	1	2.625	*
1254.	因材施教	1	3+	5	1	2.625	*
1255.	灰頭土臉	5	1	3	1+	2.625	*

最難漢字等級：進階（5）

NO.	成語	漢字難度				平均	進階
1256.	自相殘殺	1	1+	5	3	2.625	*
1257.	言歸正傳	1+	5	1+	2+	2.625	*
1258.	其貌不揚	2	3+	P1	5	2.625	*
1259.	奇花異草	2+	1	5	2	2.625	*
1260.	放虎歸山	1+	3	5	1	2.625	*
1261.	金玉良言	2	2	5	1+	2.625	*
1262.	相依為命	1+	5	1	3	2.625	*
1263.	紅顏薄命	1	1+	5	3	2.625	*
1264.	悄然無聲	5	1+	2+	1+	2.625	*
1265.	氣數已盡	1	3	1+	5	2.625	*
1266.	張牙舞爪	1	2	2+	5	2.625	*
1267.	掩人耳目	5	P1	2+	3	2.625	*
1268.	斜風細雨	5	1	3+	1	2.625	*
1269.	甜言蜜語	2+	1+	5	1+	2.625	*
1270.	無傷大雅	2+	3	P1	5	2.625	*
1271.	絕處逢生	3+	2	5	P1	2.625	*
1272.	虛情假意	5	1+	2+	1+	2.625	*
1273.	視死如歸	1+	2+	1+	5	2.625	*
1274.	順手牽羊	3+	P1	5	2	2.625	*
1275.	節衣縮食	2	1	5	2+	2.625	*
1276.	盡力而為	5	2	2+	1	2.625	*
1277.	錦衣玉食	5	1	2	2+	2.625	*
1278.	鐵石心腸	2+	2	1	5	2.625	*
1279.	大海撈針	P1	1+	5	4	2.625	**
1280.	大獲全勝	P1	5	1+	4	2.625	**
1281.	老當益壯	P1	1+	5	4	2.625	**
1282.	扶搖直上	5	4	1+	P1	2.625	**
1283.	針鋒相對	4	5	1+	P1	2.625	**
1284.	雞犬升天	1+	5	4	P1	2.625	**
1285.	力透紙背	2	5	1+	2+	2.75	*
1286.	冰清玉潔	1+	2+	2	5	2.75	*
1287.	名存實亡	P1	3	3	5	2.75	*
1288.	多愁善感	P1	5	3+	2+	2.75	*
1289.	成竹在胸	1+	3+	1	5	2.75	*
1290.	有勇無謀	P1	3+	2+	5	2.75	*
1291.	耳熟能詳	2+	3+	P1	5	2.75	*
1292.	自投羅網	1	3+	5	1+	2.75	*
1293.	衣冠楚楚	1	5	2+	2+	2.75	*

最難漢字等級：進階（5）

NO.	成語	漢字難度				平均	進階
1294.	弄瓦之喜	2+	5	3+	P1	2.75	*
1295.	步步為營	2+	2+	1	5	2.75	*
1296.	易如反掌	1+	1+	3	5	2.75	*
1297.	狗血淋頭	1+	3+	5	1	2.75	*
1298.	近墨者黑	1+	5	3+	1	2.75	*
1299.	後顧之憂	P1	2+	3+	5	2.75	*
1300.	突飛猛進	3+	1	5	1+	2.75	*
1301.	借風駛船	2+	1	5	2+	2.75	*
1302.	借題發揮	2+	1+	2	5	2.75	*
1303.	高枕無憂	P1	3+	2+	5	2.75	*
1304.	眾望所歸	3+	1+	1	5	2.75	*
1305.	鳥為食亡	2+	1	2+	5	2.75	*
1306.	絕無僅有	3+	2+	5	P1	2.75	*
1307.	愁眉不展	5	3	P1	3	2.75	*
1308.	置之度外	5	3+	2+	P1	2.75	*
1309.	舞文弄墨	2+	1	2+	5	2.75	*
1310.	輕描淡寫	2+	5	3+	P1	2.75	*
1311.	標新立異	3+	P1	2+	5	2.75	*
1312.	積習難改	5	1+	1+	3	2.75	*
1313.	龍飛鳳舞	2+	1	5	2+	2.75	*
1314.	日曬雨淋	P1	5	1	5	2.75	**
1315.	仙風道骨	5	1	P1	5	2.75	**
1316.	自欺欺人	1	5	5	P1	2.75	**
1317.	狂風暴雨	4	1	5	1	2.75	**
1318.	赤手空拳	5	P1	1	5	2.75	**
1319.	沾沾自喜	5	5	1	P1	2.75	**
1320.	門可羅雀	1	P1	5	5	2.75	**
1321.	閉月羞花	5	P1	5	1	2.75	**
1322.	喜怒哀樂	P1	5	5	1	2.75	**
1323.	開卷有益	1	5	P1	5	2.75	**
1324.	對牛彈琴	P1	1	5	5	2.75	**
1325.	旗開得勝	5	1	1	4	2.75	**
1326.	錦上添花	5	P1	5	1	2.75	**
1327.	人煙絕跡	P1	3	3+	5	2.875	*
1328.	支離破碎	2+	1+	2+	5	2.875	*
1329.	形跡可疑	3	5	P1	3+	2.875	*
1330.	取之不盡	3	3+	P1	5	2.875	*
1331.	於事無補	3	1	2+	5	2.875	*

最難漢字等級：進階（5）

NO.	成語	漢字難度				平均	進階
1332.	盲人摸象	5	P1	3+	3	2.875	*
1333.	青梅竹馬	2	5	3+	1	2.875	*
1334.	胡言亂語	5	1+	3+	1+	2.875	*
1335.	神清氣爽	3	2+	1	5	2.875	*
1336.	望梅止渴	1+	5	3+	1+	2.875	*
1337.	揮金如土	5	2	1+	3	2.875	*
1338.	無濟於事	2+	5	3	1	2.875	*
1339.	評頭論足	5	1	3	2+	2.875	*
1340.	置之不理	5	3+	P1	3	2.875	*
1341.	過河拆橋	1	2	5	3+	2.875	*
1342.	實至名歸	3	3+	P1	5	2.875	*
1343.	旗鼓相當	5	3+	1+	1+	2.875	*
1344.	緣木求魚	5	2	3	1+	2.875	*
1345.	觸類旁通	5	3	1+	2	2.875	*
1346.	不可磨滅	P1	1+	5	5	2.875	**
1347.	不勞而獲	P1	4	2+	5	2.875	**
1348.	匹馬單槍	4	1	1+	5	2.875	**
1349.	半途而廢	P1	4	2+	5	2.875	**
1350.	如法炮製	1+	P1	5	5	2.875	**
1351.	吹彈可破	4	5	P1	2+	2.875	**
1352.	良緣天定	5	5	P1	1+	2.875	**
1353.	良藥苦口	5	1+	4	1	2.875	**
1354.	見異思遷	P1	5	1+	5	2.875	**
1355.	足智多謀	2+	4	P1	5	2.875	**
1356.	杯弓蛇影	1	5	4	1+	2.875	**
1357.	前嫌冰釋	P1	5	1+	5	2.875	**
1358.	泰然自若	5	1+	1	4	2.875	**
1359.	耐人尋味	4	P1	5	2+	2.875	**
1360.	捕風捉影	5	1	4	1+	2.875	**
1361.	捨本逐末	5	P1	5	1+	2.875	**
1362.	喪心病狂	5	1	1+	4	2.875	**
1363.	單槍匹馬	1+	5	4	1	2.875	**
1364.	虛張聲勢	5	1	1+	4	2.875	**
1365.	隔牆有耳	5	4	P1	2+	2.875	**
1366.	雞犬不寧	1+	5	P1	5	2.875	**
1367.	欲速不達	5	3+	P1	3+	3	*
1368.	以毒攻毒	P1	3+	5	3+	3	*
1369.	危在旦夕	2+	1	5	3+	3	*

最難漢字等級：進階（5）											
NO.	成語	漢字難度				平均	進階	NO.	成語	漢字難度				平均	進階
1370.	自告奮勇	1	2+	5	3+	3	*	1408.	如鳥獸散	1+	2+	5	3+	3.125	*
1371.	伯仲之間	2	5	3+	1+	3	*	1409.	作鳥獸散	1+	2+	5	3+	3.125	*
1372.	怒目而視	5	3	2+	1+	3	*	1410.	魚目混珠	1+	3	5	3	3.125	*
1373.	流連忘返	2+	3	1+	5	3	*	1411.	賣主求榮	1+	3	3	5	3.125	*
1374.	牽強附會	5	3+	2+	1	3	*	1412.	獨具匠心	3+	3	5	1	3.125	*
1375.	處之泰然	2	3+	5	1+	3	*	1413.	觸目驚心	5	3	3+	1	3.125	*
1376.	朝夕相處	5	3+	1+	2	3	*	1414.	公報私仇	1	2+	4	5	3.125	**
1377.	無緣無故	2+	5	2+	2	3	*	1415.	出奇制勝	1	2+	5	4	3.125	**
1378.	登堂入室	5	3+	2+	1	3	*	1416.	自相矛盾	1	1+	5	5	3.125	**
1379.	順水推舟	3+	P1	3+	5	3	*	1417.	舟車勞頓	5	P1	4	3+	3.125	**
1380.	傳宗接代	2+	5	1+	3	3	*	1418.	作賊心虛	1+	5	1	5	3.125	**
1381.	愁眉苦臉	5	3	2+	1+	3	*	1419.	事與願違	1	4	2+	5	3.125	**
1382.	腦滿腸肥	1+	2	5	3+	3	*	1420.	明爭暗鬥	P1	3+	4	5	3.125	**
1383.	駕輕就熟	5	2+	1	3+	3	*	1421.	信賞必罰	1+	4	2	5	3.125	**
1384.	奮發圖強	5	2	1+	3+	3	*	1422.	苦盡甘來	2+	5	5	P1	3.125	**
1385.	燈盡油乾	2	5	2+	2+	3	*	1423.	胸中無墨	5	P1	2+	5	3.125	**
1386.	擠眉弄眼	5	3	2+	1+	3	*	1424.	迷途知返	3+	4	P1	5	3.125	**
1387.	凡夫俗子	5	3	4	P1	3	**	1425.	假公濟私	2+	1	5	4	3.125	**
1388.	不甘示弱	P1	5	3	4	3	**	1426.	唯我獨尊	5	P1	3+	4	3.125	**
1389.	不遺餘力	P1	5	5	2	3	**	1427.	得意揚揚	1	1+	5	5	3.125	**
1390.	如釋重負	1+	5	1+	4	3	**	1428.	莫名奇妙	5	P1	2+	5	3.125	**
1391.	曲意逢迎	4	1+	5	1+	3	**	1429.	欺世盜名	5	2+	5	P1	3.125	**
1392.	此起彼落	3	P1	5	4	3	**	1430.	新仇舊恨	P1	5	2+	5	3.125	**
1393.	作威作福	1+	5	1+	4	3	**	1431.	溜之大吉	5	3+	P1	4	3.125	**
1394.	物競天擇	2	5	P1	5	3	**	1432.	漁翁得利	4	5	1	2+	3.125	**
1395.	玩物喪志	1	2	5	4	3	**	1433.	盡忠報國	5	5	2+	P1	3.125	**
1396.	拾人牙慧	5	P1	2	5	3	**	1434.	聞風喪膽	2+	1	5	4	3.125	**
1397.	星羅棋佈	P1	5	4	3	3	**	1435.	與世長辭	4	2+	1	5	3.125	**
1398.	相敬如賓	1+	4	1+	5	3	**	1436.	縮頭縮腦	5	1	5	1+	3.125	**
1399.	迫不及待	5	P1	3	4	3	**	1437.	血海深仇	3+	1+	3	5	3.25	*
1400.	鬼斧神工	4	5	3	P1	3	**	1438.	呼之欲出	3+	3+	5	1	3.25	*
1401.	深藏不露	3	5	P1	4	3	**	1439.	幸災樂禍	3+	5	1	3+	3.25	*
1402.	慌慌張張	5	5	1	1	3	**	1440.	冠蓋如雲	5	3+	1+	3	3.25	*
1403.	暗送秋波	4	1+	1+	5	3	**	1441.	重整旗鼓	1+	3	5	3+	3.25	*
1404.	暗箭傷人	4	5	3	P1	3	**	1442.	毫髮無傷	5	2+	2+	3	3.25	*
1405.	齊心協力	4	1	5	2	3	**	1443.	深思熟慮	3	1+	3+	5	3.25	*
1406.	暴跳如雷	5	1+	1+	4	3	**	1444.	業精於勤	2+	2+	3	5	3.25	*
1407.	加油添醋	1+	2+	5	3+	3.125	*	1445.	節哀順變	2	5	3+	2+	3.25	*

最難漢字等級：進階（5）							
NO.	成語	漢字難度				平均	進階
1446.	滿載而歸	2	3+	2+	5	3.25	*
1447.	漫山遍野	5	1	3+	3+	3.25	*
1448.	漫無止境	5	2+	3+	2	3.25	*
1449.	精益求精	2+	5	3	2+	3.25	*
1450.	目瞪口呆	3	5	1	4	3.25	**
1451.	同歸於盡	P1	5	3	5	3.25	**
1452.	其樂融融	2	1	5	5	3.25	**
1453.	後悔莫及	P1	5	5	3	3.25	**
1454.	徒勞無功	5	4	2+	1+	3.25	**
1455.	徒費口舌	5	3	1	4	3.25	**
1456.	鬼斧神工	4	5	3	1	3.25	**
1457.	草木皆兵	2	2	5	4	3.25	**
1458.	除暴安良	3	5	P1	5	3.25	**
1459.	高深莫測	P1	3	5	5	3.25	**
1460.	深仇大恨	3	5	P1	5	3.25	**
1461.	處心積慮	2	1	5	5	3.25	**
1462.	惱羞成怒	1+	5	1+	5	3.25	**
1463.	揚眉吐氣	5	3	4	1	3.25	**
1464.	畫蛇添足	1+	4	5	2+	3.25	**
1465.	裝瘋賣傻	2+	4	1+	5	3.25	**
1466.	隔岸觀火	5	4	3	1	3.25	**
1467.	槍林彈雨	5	2	5	1	3.25	**
1468.	賓主盡歡	5	3	5	P1	3.25	**
1469.	縱橫交錯	5	5	1+	1+	3.25	**
1470.	大智若愚	P1	4	4	5	3.25	***
1471.	仗勢欺人	4	4	5	P1	3.25	***
1472.	棋逢敵手	4	5	4	P1	3.25	***
1473.	犬馬之勞	5	1	3+	4	3.375	*
1474.	眉清目秀	3	2+	3	5	3.375	*
1475.	無依無靠	2+	5	2+	3+	3.375	*
1476.	超凡入聖	2+	5	2+	3+	3.375	*
1477.	感恩戴德	2+	5	2+	3+	3.375	*
1478.	顧此失彼	2+	3	3	5	3.375	*
1479.	仗義執言	4	3	5	1+	3.375	**
1480.	玉碎瓦全	2	5	5	1+	3.375	**
1481.	冰肌玉骨	1+	5	2	5	3.375	**
1482.	死氣沉沉	2+	1	5	5	3.375	**
1483.	含血噴人	5	3+	5	P1	3.375	**

最難漢字等級：進階（5）							
NO.	成語	漢字難度				平均	進階
1484.	忘恩負義	1+	5	4	3	3.375	**
1485.	委曲求全	5	4	3	1+	3.375	**
1486.	執迷不悟	5	3+	P1	5	3.375	**
1487.	專心致志	3+	1	5	4	3.375	**
1488.	盡善盡美	5	3+	5	P1	3.375	**
1489.	福至心靈	4	3+	1	5	3.375	**
1490.	彈丸之地	5	4	3+	1	3.375	**
1491.	雕蟲小技	5	5	P1	3+	3.375	**
1492.	鑽牛角尖	5	1	3+	4	3.375	**
1493.	尋根究底	5	3	2+	3+	3.5	*
1494.	趕盡殺絕	2+	5	3	3+	3.5	*
1495.	龍爭虎鬥	2+	3+	3	5	3.5	*
1496.	如獲至寶	1+	5	3+	4	3.5	**
1497.	含沙射影	5	2+	5	1+	3.5	**
1498.	含糊其詞	5	5	2	2	3.5	**
1499.	風捲殘雲	1	5	5	3	3.5	**
1500.	集思廣益	4	1+	3+	5	3.5	**
1501.	滾瓜爛熟	4	1+	5	3+	3.5	**
1502.	墨守成規	5	4	1+	3+	3.5	**
1503.	縱虎歸山	5	3	5	1	3.5	**
1504.	胸懷大志	5	5	P1	4	3.5	***
1505.	雅俗共賞	5	4	1	4	3.5	***
1506.	搖頭擺尾	4	1	5	4	3.5	***
1507.	堂而皇之	3+	2+	5	3+	3.625	*
1508.	斷篇殘簡	3+	3+	5	2+	3.625	*
1509.	驚弓之鳥	3+	5	3+	2+	3.625	*
1510.	力孤勢危	2	5	4	3+	3.625	**
1511.	力窮勢孤	2	3+	4	5	3.625	**
1512.	吹灰之力	4	5	3+	2	3.625	**
1513.	虎背熊腰	3	2+	4	5	3.625	**
1514.	善罷甘休	3+	5	5	1	3.625	**
1515.	與虎謀皮	4	3	5	2+	3.625	**
1516.	箭無虛發	5	2+	5	2	3.625	**
1517.	養尊處優	3+	4	2	5	3.625	**
1518.	驕兵必敗	5	4	2	3+	3.625	**
1519.	昏昏欲睡	4	4	5	1+	3.625	***
1520.	橫衝直撞	5	4	1+	4	3.625	***
1521.	仁至義盡	4	3	3	5	3.75	**

最難漢字等級：進階（5）						
NO.	成語	漢字難度				平均	進階
1522.	官官相護	5	5	1+	3+	3.75	**
1523.	近朱者赤	1+	5	3+	5	3.75	**
1524.	恩威並行	5	5	3+	1+	3.75	**
1525.	割席絕交	5	5	3+	1+	3.75	**
1526.	無憂無慮	2+	5	2+	5	3.75	**
1527.	損兵折將	5	4	2+	3+	3.75	**
1528.	賓至如歸	5	3+	1+	5	3.75	**
1529.	謀財害命	5	4	3	3	3.75	**
1530.	默默無聞	5	5	2+	2+	3.75	**
1531.	龍蛇混雜	2+	4	5	3+	3.75	**
1532.	爛醉如泥	5	3+	1+	5	3.75	**
1533.	心懷鬼胎	1	5	4	5	3.75	***
1534.	依依不捨	5	5	P1	5	3.75	***
1535.	欣欣向榮	4	4	2	5	3.75	***
1536.	孤芳自賞	5	5	1	4	3.75	***
1537.	勢均力敵	4	5	2	4	3.75	***
1538.	歸心似箭	5	1	4	5	3.75	***
1539.	形銷骨立	3	5	5	2+	3.875	**
1540.	刻舟求劍	2+	5	3	5	3.875	**
1541.	受寵若驚	3	5	4	3+	3.875	**
1542.	座無虛席	3	2+	5	5	3.875	**
1543.	朝令夕改	5	4	3+	3	3.875	**
1544.	落葉歸根	4	3+	5	3	3.875	**
1545.	隨波逐流	3	5	5	2+	3.875	**
1546.	臨危授命	4	3+	5	3	3.875	**
1547.	古井無波	4	4	2+	5	3.875	***
1548.	粉身碎骨	4	1+	5	5	3.875	***
1549.	絲絲入扣	4	4	2+	5	3.875	***
1550.	暗箭難防	4	5	1+	5	3.875	***
1551.	銅牆鐵壁	4	4	2+	5	3.875	***
1552.	任勞任怨	3+	4	3+	5	4	**
1553.	壯士斷臂	4	3+	3+	5	4	**
1554.	官逼民反	5	5	3	3	4	**
1555.	恨之入骨	5	3+	2+	5	4	**
1556.	恩將仇報	5	3+	5	2+	4	**
1557.	疲於奔命	5	3	5	3	4	**
1558.	牽腸掛肚	5	5	3+	2+	4	**
1559.	橫眉怒目	5	3	5	3	4	**

最難漢字等級：進階（5）						
NO.	成語	漢字難度				平均	進階
1560.	曲徑通幽	4	5	2	5	4	***
1561.	柔腸寸斷	5	5	3	3+	4.125	**
1562.	登峰造極	5	5	3+	3	4.125	**
1563.	議論紛紛	3+	3	5	5	4.125	**
1564.	含情脈脈	5	1+	5	5	4.125	***
1565.	怒髮衝冠	5	2+	4	5	4.125	***
1566.	亡羊補牢	5	2	5	5	4.25	***
1567.	木雕泥塑	2	5	5	5	4.25	***
1568.	防微杜漸	5	4	5	3+	4.375	***
1569.	鳥盡弓藏	2+	5	5	5	4.375	***
1570.	尋幽訪勝	5	5	3+	4	4.375	***
1571.	擇善固執	5	3+	4	5	4.375	***
1572.	臨陣磨槍	4	3+	5	5	4.375	***
1573.	胡里胡塗	5	3	5	5	4.5	***

Notes:

i. The abbreviation “QIEs” stands for quadra-syllabic idiomatic expressions, namely, Chinese *chengyu* 成語.

ii. This appendix is made by Yen-Ling Liu. The difficulty level of each character can be retrieved from *Hanzi Fenji Biaozhun Jiansuo Xitong* (Chinese Character Grading Standard Retrieval System), established by National Academy for Educational Research (NAER), at this website: http://www.coct.naer.edu.tw/standsys/#characters

iii. In mean calculation, P1 and the plus are each taken as zero and 0.5.

iv. The asterisk indicates one advanced character in the Chinese idiom.