

December 2023

A Comparative Analysis of the Origin and Formation Between Chinese Characters and English Alphabets

Xuan Song
Cleveland State University

Follow this and additional works at: <https://engagedscholarship.csuohio.edu/cltmt>



Part of the [Chinese Studies Commons](#)

[How does access to this work benefit you? Let us know!](#)

Recommended Citation

Song, Xuan (2023) "A Comparative Analysis of the Origin and Formation Between Chinese Characters and English Alphabets," *Chinese Language Teaching Methodology and Technology*. Vol. 6: Iss. 2, Article 4. Available at: <https://engagedscholarship.csuohio.edu/cltmt/vol6/iss2/4>

This Article is brought to you for free and open access by the Chinese American Faculty and Staff Association at EngagedScholarship@CSU. It has been accepted for inclusion in Chinese Language Teaching Methodology and Technology by an authorized editor of EngagedScholarship@CSU. For more information, please contact library.es@csuohio.edu.

A Comparative Analysis of the Origin and Formation Between Chinese Characters and English Alphabets

Xuan Song, Cleveland State University

Lifen Li, Kent State University

ABSTRACT

This research is based on the framework of social constructivism, utilizing the principle of Human Universals as a methodology to compare the similarities and differences between the ideation and formation methods of Chinese characters and English alphabets. Through comparative analysis of the ideation of English letters (pictogramme) and the origin of Chinese characters, known as the "Six Categories Theory," we discover their alignment in terms of social, traditional, and cultural aspects. This suggests that different ethnic groups share common features in terms of life experience, learning cognitive development, and thinking habits. This study also finds that the origins of English letters and Chinese characters share similar linguistic features in their methods of constructing letters/characters, such as pictographic, ideographic, and semantic characteristics. Exploring these commonalities contributes to promoting learning and communication between Chinese and English characters. Additionally, by focusing on socio-cultural aspects, traditional customs, and cognitive learning, this study aims to break away from the traditional linguistic research approach that solely focuses on language differences. This provides a broader perspective and richer dimensions for Chinese and English language learning, facilitating the development of cross-linguistic and cross-cultural communication.

Keywords: Origin, Chinese Characters; English Alphabets; Philosophical Views; Formation; Cultural Beliefs; Social Conventions; Cross-linguistic and cross-cultural communication

The "Six Categories Theory" explains the ideation of Chinese characters as follows: They are constructed based on familiar things and phenomena related to human survival and living conditions, as well as the human body itself. The construction is carried out according to natural human cognition and thinking habits, resulting in visual symbols that can express human understanding and experience of familiar objective things, phenomena, thoughts, and concepts. This concept can be classified into three statements: "taking from oneself," "taking from things," and "reaching the depths of principles," as categorized by Lu (1981). Similarly, in the Western world, there is a similar notion. Vico (1968) expressed in "The New Science"

that the earliest civilizations in the world used poetic writing to think, fables to speak, and pictographic writing to record. This shared human concept later developed into the theory of Human Universals. Human Universals, also known as universal human nature, refers to elements, patterns, traits, or systems that appear in all cultures worldwide. Brown (1991) defines Human Universals in his book "Human Universals" as "those human characteristics that have no known exceptions in various aspects such as culture, society, language, behavior, and psychology" (p. 12).

In order to demonstrate the existence of Human Universals, Donald provides a list of hundreds of items that are considered part of universal human nature. Examples include: language and cognition, including translatable languages, abstraction in speech and thought, antonyms and synonyms, logical concepts such as "and," "not," "opposite," "equal," "whole/part," "general/specific," cognitive binaries (words for black and white colors, classification of age, behavioral tendencies, body parts, colors, animals, plants, internal states, kinship, gender, space, tools, weather, etc.), continua (treating ranking as part of thinking), inconsistency between speech, thought, and behavior, rhetorical devices and metaphors, symbolism and symbolic speech, synesthetic metaphors (using one sensation to metaphorize another), taboo language, special forms of speech for specific occasions, etc. In the social sciences category, examples include personal names, family or kinship groups, self-controlled and uncontrolled behaviors, expressions and experiences of liking, age (categorization, status), moral norms and ethical constraints, differentiation between good and bad, commitments and vows, reputation, status and roles, leadership, collective identity, conflict and division of labor, gender roles, marriage, sexual behavior, collective decision-making, etiquette, inheritance rules, rewards and gifts, repair and judgment of errors, jealousy, violence, shame, triangular cognition (evaluation of relationships between oneself and two others), and so on.

This research is based on the framework of social constructivism, utilizing the principle of Human Universals as a methodology to compare the similarities and differences between the ideation and formation methods of Chinese characters and English alphabets. Through comparative analysis of the ideation of English letters (pictogramme) and the origin of Chinese characters, known as the "Six Categories Theory," we discover their alignment in terms of social, traditional, and cultural aspects. This suggests that different ethnic groups share common features in terms of life experience, learning cognitive development, and thinking habits. This study also finds that the origins of English letters and Chinese characters share similar linguistic features in their methods of constructing letters/characters, such as pictographic, ideographic, and semantic characteristics. Exploring these commonalities contributes to promoting learning and communication between Chinese and English characters. Additionally, by focusing on socio-cultural aspects, traditional customs, and cognitive learning, this study aims to break away from the traditional linguistic research approach that solely focuses on language differences. This provides a broader perspective and richer dimensions for Chinese and English language learning, facilitating the development of cross-linguistic and cross-cultural communication.

The Position and Role of Social Constructivism in Linguistic Research

Social constructionism is an epistemological perspective that examines how individuals collectively construct their understanding of the world. The core idea of this theory is that meaning is developed through coordination with others rather than independently by each individual (Leeds-Hurwitz, 2009). Social constructionism is primarily used to address how people in society construct ideas or concepts that cannot exist without validation from others or language (Raskin, 2002). The fundamental principles of social constructionism are summarized by Fairhurst et al. (2010) as "people simultaneously create their social and cultural world while being created by it" (p. 178). Based on this epistemology, social constructionism has gained acceptance among language researchers, as "language not only reflects social reality but also constitutes (creates) it" (Fairhurst et al., 2010, p. 178). Ruggie (1998) stated in the article "What Makes the World Hang Together? Neo-utilitarianism and the Social Constructionist Challenge" that "language itself has the capacity to construct social facts, including constitutive rules" (p. 860). Qin (2006) commented that "the linguistic turn in Western philosophy that emerged at the beginning of the 20th century marked a shift from emphasizing the logic and instrumentality of language to focusing on the study of language 'meaning.' Consequently, in later linguistic research, language gradually came to be seen as a creative force: not merely a tool for expressing thoughts and describing facts but more importantly, a means of constructing social facts, thoughts, and even individual identities" (p. 7).

The increasingly prominent position of social constructionism in linguistic research reflects a shift in philosophical perspectives. The questioning of the traditional rationalist dualistic thinking has led to a revival of humanistic inquiry. Language is now seen more as something that emerges and generates meaning in everyday life. This conceptualization of language as interactive and mutually constructing has ultimately established a solid theoretical foundation for the position and role of social constructionism in linguistic research.

Social constructionism plays an important role in linguistic research. Gumperz (1964) emphasized the close relationship between language and society, viewing language as a product of social culture shaped and interpreted through social interaction and cultural influences. From the perspective of social constructionism, language is not just a tool for conveying information but a complex social behavior and mode of communication. Chomsky (2006) argues that the meaning of language is established through shared agreements and social consensus in social interactions. The meaning and interpretation of language emerge and evolve within specific social and cultural contexts. Social constructionism highlights the social nature and cultural diversity of language, focusing on language variations and pragmatic conventions among different social and cultural groups. The theory posits that the social identities, statuses, and cultural backgrounds of language users significantly influence their

language behaviors and communication styles.

In linguistic research, social constructionism provides a framework for analyzing and interpreting language phenomena. Bourdieu (1989) examines the influence of social backgrounds, social interactions, power relations, and cultural factors on language use. Through the lens of social constructionism, researchers can better understand the social and cultural contexts of language use and explore the changes and evolution of language in different social and cultural environments. Additionally, social constructionism emphasizes the interplay between language and social practices, considering language as part of social practices and, in turn, being influenced by them. By studying the use of language in social practices, one can uncover the role and functions of language in society and culture.

In summary, social constructionism in linguistic research emphasizes the interrelationship between language and society, culture, providing a comprehensive theoretical perspective that helps researchers understand and interpret the social nature, cultural diversity, and contextual influences on language use. It offers an important theoretical and methodological framework for linguistic research, enriching our understanding of language.

The Analysis of Ideologies in Chinese Characters and English Alphabets Construction

Chinese characters and English letters are both writing systems, but their ideologies in character construction are different under specific historical and geographical conditions. The ideology of Chinese character construction can be traced back to ancient China's ideographic writing system. The earliest Chinese characters were formed by depicting or simplifying concrete objects, expressing meanings related to the shape and features of the objects. Over time, Chinese characters evolved into ideogrammatic and phonogrammatic characters. Ideogrammatic characters represent abstract concepts or ideas through the combination and structure of character forms, while phonogrammatic characters represent the meanings of words through the combination of character forms and sounds. This character construction approach is based on people's perception and cognition of the world, as well as their understanding of the relationship between objects, abstract concepts, and language.

In contrast, the ideology of English letter construction originates from the Latin alphabet. The Latin alphabet was initially used for writing Latin during the ancient Roman period and later expanded to other European languages. The ideology of English letter construction mainly represents phonetic phonemes through the shape and combination of symbols. Each letter represents a specific phoneme or syllable and is combined to form words and sentences. The construction of English letters is more abstract and symbolic, not directly reflecting the shape or meaning of objects but expressing them through phonemes and the rules of language.

It is worth noting that there are also some English words derived from Latin or

Greek roots, and some of these roots have ideographic or symbolic meanings, similar to the character construction approach of Chinese characters. However, overall, the ideology of English letter construction tends to represent phonetic phonemes, while Chinese characters focus more on the visual and symbolic expression of objects and meanings. Therefore, the ideologies of character construction in Chinese and English reflect different cultural and linguistic concepts. Chinese characters emphasize the visual, symbolic, and meaningful expression, while English letters focus on representing phonetic phonemes. However, the formation ideology of English letters and the three basic ideologies of Chinese character construction, "taking from the body," "taking from the distant objects," and "deep understanding principles," have a social and cultural significance connection.

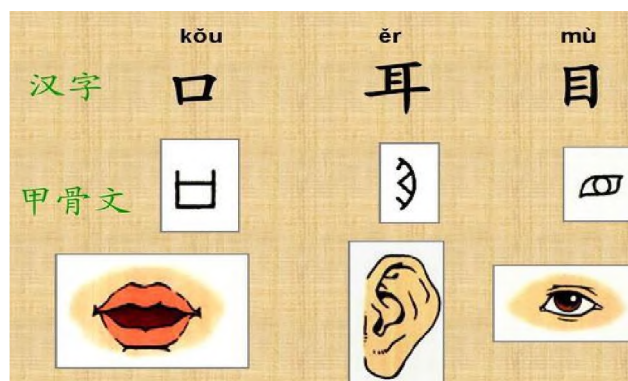
Taking from the Body (近取诸身)

The ideology of "taking from the body" refers to the concept that the ancestors of the Chinese nation created Chinese characters related to the human body based on their observations and depictions of their own physical organs and actions. Chinese characters related to human body parts can be categorized into the following four types:

1. Direct depiction of human postures, such as 人 (person), 大 (big), 女 (woman), 子 (child), 儿 (son), and 老 (old).
2. Depiction of human body organs, such as 耳 (ear), 目 (eye), 口 (mouth), 舌 (tongue), 手 (hand), and 足 (foot).
3. Addition of symbolic elements to the human form to represent specific meanings, such as 大 (big), 立 (stand), 夫 (man), and 夭 (early death).
4. Combination of two or more human figures, such as characters related to hands: 打 (hit), 拉 (pull), 推 (push), 拿 (take), 取 (take), 看 (look), 受 (receive), 采 (pick), and 抓 (grab); characters related to feet: 正 (upright), 出 (exit), 各 (each), 先 (first), 企 (stand on tiptoe), 此 (this), 步 (step), 降 (descend), 陟 (ascend), 涉 (wade), 走 (walk), 趋 (step), 赶 (hurry), 赴 (go to), 趋 (tend), 越 (cross), and 趁 (take advantage of); characters related to the heart: 思 (think), 想 (imagine), 意 (meaning), 念 (thought), 怒 (anger), 恕 (forgive), 恭 (respectful), 慕 (admire), 快 (fast), 慢 (slow), 性 (nature), 惰 (lazy), 惭 (ashamed), and 愧 (guilty).

The ideology of "taking from the body" demonstrates how Chinese characters were created based on the observation and depiction of the human body, its organs, and actions. This approach reflects the close connection between the Chinese writing system and the physical attributes and behaviors of humans and some representative examples are presented in the following figure.

Figure 1
Pictographic Characters of the Human Body



The concept of "近取诸身" (taking from body) is also reflected in the formation and development of English letters. By analyzing the history of the formation and evolution of English letters (from ancient Egyptian hieroglyphs to Phoenician alphabet, Greek alphabet, Latin alphabet, and finally English alphabet), we can find numerous pictographic evidences related to the formation of the twenty-six English letters (Drucker, 1995; Haley, 1995; Sacks, 2003). For example:

E. Approximately 3,800 years ago, the letter 'E' looked like a humanoid figure with two arms and one leg. Around 700 BC, the Greeks flipped it and derived many words related to the human body, such as "ear," "elbow," "eye," and so on.

I. Around 1000 BC, the letter 'I' was called 'yod' in ancient languages, which meant "hand" or "arm." The Greeks called it 'iota' and made it vertical. In the process of evolution, around 700 BC, it turned into a straight line and gave rise to many words related to the human body, such as "index," "intestine," "iris," and so on.

K. The letter 'K' is an ancient letter originating from Egyptian hieroglyphs. In the Semitic languages, it was called 'kaph,' meaning "palm." During that period, the letter faced the opposite direction. Around 800 BC, the Greeks adopted this letter, called it 'kappa,' flipped it to the right, and derived many words related to the human body, such as "kidney," "kill," "kidnap," and so on.

O. The letter 'O' also originated from Egypt. It was called 'eye' in Egyptian and 'ayin' in Semitic languages. The Phoenicians further simplified the hieroglyph, leaving only the outline of the pupil. 'O' continued to give rise to many words related to the human body, such as "ocular," "optom," "opto," and so on.

P. In ancient Semitic languages, the current letter 'P' resembled an inverted 'V.' Its pronunciation was 'pe,' meaning "mouth." The Phoenicians turned its top into an inclined hook. Around 200 BC, the Romans flipped it to the right and closed the loop, forming the letter 'P.' It continued to give rise to many words related to the human body, such as "people," "person," "pupil," and so on.

R. In Semitic scripts, the original shape of the letter 'R' resembled a sideways profile of a person looking to the left. The Romans flipped it to the right and added an inclined foot. 'R' continued to give rise to many words related to the

human body, such as "race," "rector," "righteous," and so on.

S. The letter 'S' had a shape similar to a horizontal wave-like 'W,' representing the bowstring of an archer. This shape's angles came from the Phoenicians, who named it 'shin,' meaning "teeth." The Romans flipped it vertically and called it 'sigma,' and the current position of the letter 'S' is derived from the Roman flip. It continued to give rise to many words related to the human body, such as "skin," "skull," "shoulder," "stomach," "spleen," and so on.

The feature of pictorial representation of English alphabets aforementioned can be typically manifested in the following example as figure 2.

Figure 2

Pictorial Representation of English Letters



Taking Reference from Distant Objects (远取其物)

The concept of "taking from distant objects" means that the ancestors of the Chinese people created characters by observing the external world and using associated objects. This includes both natural and man-made objects.

1. Characters derived from natural objects: Sun, moon, stars, clouds, rain, water, earth, electricity. Characters related to the sun: dawn, morning, bright, obscure, twilight, dark. Characters related to water: river, lake, ocean, waves, pond, great, flood, spring, source, overflow. Characters related to animals: cow, sheep, deer, horse, elephant, rabbit, cat, tiger, bear, insect, rat, hunt, hunt, raccoon, cat. Characters related to plants: wood, origin, tree, grass, poplar, willow, branch, forest, capacity, Chu, vermilion, extreme, mutual, plain.
2. Characters derived from man-made objects: Characters related to transportation: boat, vehicle, sedan, carriage. Characters related to "clothing:" jacket, shirt, robe, skirt, pants, fur, wrap. Characters related to residence: government, village, temple, courtyard, empty, cave, house, palace, room. Characters related to worship: ceremony, tripod, pray, god, society, ancestor, clan, pray, prayer, blessing, naked, auspicious, protect, calamity. Characters related to weapons: soldier, guard. Characters related to city-states: country, or, surround. Characters related to commerce and farming: sell, expensive, cheap, wealth, greed, poor, devalue, credit, redeem, gamble, reward, levy.

The concepts of "taking from body" and "taking from distant objects" reflect the ancestral wisdom of the Han people in their intuitive understanding of the world. When we carefully examine each Chinese character, we can envision the scenes in which our ancestors used infinite wisdom and simple, vivid imagery to depict the

interactions between humans and nature, as well as the human transformation of nature. Xu Shen, in the preface of the "Shuo Wen Jie Zi" (SWJZ), vividly describes the beauty of the concrete manifestation of the ideational principles "taking from body" and "taking reference from distant objects" in the creation of Chinese characters. "From the heavens, earth, mountains, and rivers, they captured the profound and distant flow and solidity. From the sun, moon, stars, and constellations, they captured the measurements and patterns of illumination. From clouds, mists, grass, and trees, they captured the lush and spreading forms. From clothing and objects, they captured the gestures of courtesy and respect. From facial features and expressions, they captured the expressions of joy, anger, and sorrow. From insects, fish, birds, and animals, they captured the principles of bending, stretching, and proper movement. From bones, horns, teeth, and jaws, they captured the postures of balancing and chewing. Changing at will, shaping according to the heart's desire, they encompassed the essence of the three forces and gathered the characteristics of all things." (Xu, p.1). Xu's summary not only vividly showcased the concept of "taking from distant objects" in Chinese characters' formation, it also established foundational categories of this theory for its future application and development. When looking at the evolvement of the fundamental Chinese characters table as follows, this attribute is readily comprehensible.

Figure 3

Common Pictographic Chinese Character Comparison Table (Han Zi Wang Guo, 2017)

原則	舉 例								釋意
象	a								人或一部 人體全部
	b								動物正像 或旁像
形	c								符號 自然物體
	d								符號 人工器物

If saying that the ideographic principle of "taking from body" and "taking reference from distant objects" in Chinese characters originated from the Han people's intuitive observation of the world, then the development of English letters can also be seen as a product of intuitive thinking. Needham (1996) mentioned this form of intuitive thinking and suggested that ancient thinkers' conceptual understanding of intuitive thinking might have been influenced by their understanding of the construction of writing systems. Cassirer (1944) also stated in "An Essay on Man" that in primitive civilizations, human language is always shaped and corresponds to

specific forms of human life due to the predominant interest in concrete or particular aspects. Vico (1968) expressed a similar idea in "The New Science," stating that the earliest civilizations used poetic writing for thinking, fables for speech, and pictographic writing for recording. Based on these discussions, the ideographic principle of "taking from body" can also be applied to the formation of English letters, dividing them into categories of natural objects and man-made objects.

Letters and Words Derived from Natural Objects

To better illustrate the first shared feature of English letters' derivation and Chinese characters' birth that are preliminarily from natural objects, let us explore the following examples and to seek their similarities and to explain how this theory mechanize in these two languages.

A. The letter 'A' in its original form was inverted. It was introduced in the 19th century. Due to its inversion, it resembles the head of an animal with horns or antlers, which is fitting for words like alligator, ant, anteater, antelope, etc.

G. The letter 'G' originated from the Greek letter 'zeta.' Initially, it looked like an 'I.' The Romans changed its shape around 250 BC, adding upper and lower arms and giving it a 'g' sound. In its development, straight lines transformed into curves, eventually forming its current crescent shape, resembling the outline of an animal's head and neck, as seen in words like goat, giraffe, goose, gorilla, etc.

F. The letter 'F' originated from the Phoenician alphabet and looked more like a 'Y.' The ancient Greeks renamed it 'digamma' and tilted it to resemble the modern 'F.' The Romans gave it a more geometrical shape, representing the picture of a stick or support, as seen in words like fire, fork, field, fold, etc.

J. The letter 'J' also represented an animal's tail in ancient times. Its shape changed in the 15th century, influenced by the Spanish language. It only became common in printed materials around 1640, but it still retains traces of its original form, as seen in words like jaguar, jackal, jager, etc.

L. In ancient Semitic languages, the modern letter 'L' was inverted. Thus, it resembled a hooked letter. It was known as 'El,' meaning "God." The Phoenicians were responsible for inverting it, hooking it to the left. They slightly straightened the hook and named it 'lamed,' meaning "goad." The Greeks called it 'lambda' and flipped it to face the right. The final appearance of the letter 'L,' with a right angle and straight foot, was created by the Romans, as seen in words like langur, lion, leopard, lizard, etc.

M. The origin of the letter 'M' is from the wavy vertical lines of the Egyptians, with five peaks representing water. Around 1800 BC, the Semitic people reduced these lines to three waves, and the Phoenicians removed one wave. Around 800 BC, these peaks were transformed into zigzag shapes and horizontally flipped to form the familiar letter 'M' we know today, representing the picture of water, as seen in words like meander, moist, monsoon, marine, etc.

N. Another Egyptian symbol is the letter 'N,' which originally looked like a smaller ripple above a larger ripple, representing a cobra or snake. The ancient Semitic people gave it the pronunciation 'n,' representing "fish." Around 1000

BC, only one ripple remained, and the Greeks named it 'nu,' representing either a snake or the motion of a fish, as seen in words like narwhal, numbat, nutria, nightingale, etc.

Q. The letter 'Q' was initially written as a circle crossed by a vertical line. In Roman inscriptions around 520 BC, it represented the tail of a monkey or a looped rope, and it appeared in its familiar form today, as seen in words like quail, quetzal, etc.

X. The ancient Greek letter 'ksi' had a similar pronunciation to 'X.' The lowercase form of the letter 'X' can be seen in medieval manuscripts. Italian printers in the late 15th century also used the lowercase 'X' to represent hills or the picture of a fish, as seen in words like xenopus, xerus, etc.

T. The ancient Semitic people used the lowercase form of the letter 'T' as we see it today to represent a vertical cross-shaped picture. The Phoenicians called this letter 'taw' (mark), pronounced similar to 'tee.' The Greeks referred to it as 'tau.' They also added a cross at the top of the letter to distinguish it from the letter 'X,' as seen in words like tableau, tag, texture, etc.

Letters and Words Derived from Human-Made Objects

The second feature of English letters' creation aligns with the principle of "taking from human-made objects" in the development of Chinese Characters. The following examples would endow you a better understanding of it.

B. The letter 'B' originated from Egyptian hieroglyphs and was in a lying position on its abdomen. In its original form, it resembled a house with a door, roof, and rooms. This symbol represented a "shelter" or a depiction of a home or courtyard. Examples of words associated with it include building, bamboo, badge, and block.

C. This letter originated from the Phoenicians. Its shape resembles a boomerang or a hunter's staff. The Greeks called it 'gamma' and flipped its orientation from the Phoenician writing direction to the present direction, while the Italians gave it a better crescent shape. Examples of words associated with 'C' include cargo, chart, container, and more.

D. In around 800 BCE, the Phoenicians called the letter 'D' 'dalet.' Its original shape resembled a rough triangle pointing left. The original meaning of this letter was "door." When the Greeks adopted this letter into their alphabet, they named it 'delta.' Later, it was flipped, and the Romans added a semi-circle on the right side, symbolizing the depiction of a "door leaf." Examples of words associated with 'D' include door, ditch, deck, dine, and more.

H. The letter 'H' originated from the Egyptians and was used as a symbol for fences, hedges, and walls. Examples of words associated with 'H' include home, house, hall, and more.

L. In ancient Phoenician, the modern letter 'L' was inverted. Thus, it resembled a hooked letter. It was originally called 'El,' meaning "God." The Phoenicians reversed it and hooked it to the left side. They straightened the hook slightly and named it 'lamed,' meaning "goat" or "shepherd's staff." The Greeks called it

'lambda' and flipped it to face the right. The final appearance of the letter 'L,' with a right angle and straight leg, was created by the Romans, symbolizing a whip or a stick. Examples of words associated with 'L' include ladder, log, lumber, and more.

V. The Romans interchangeably used the letters 'V' and 'U.' The distinction between them began to appear around 1400 CE. Examples of words associated with 'V' include vessel, violin, and more.

These pictographic examples as follows would better assist your understanding of the derivation of English letters' creation in terms of the shared principle in Chinese characters' formation.

Figure 4

Some Examples of English Letters and Their Corresponding Pictographic Representations



Deep Understanding Principles (深及诸理)

If "taking from body" and "taking from the distant objects" reflect the intuitive thinking of the Chinese people, then "deep understanding principles" represents a deeper level of ideographic concept, namely: Chinese characters, with their highly abstracting ability, reflect the ideological concepts and thinking patterns of the Han ethnic group. Let us discuss the principle in two categories.

Ideological concepts: Chinese characters related to traditional cultural customs and gender roles include: male (男), female (女), married woman (妇), and marriage (嫁). Chinese characters related to hierarchical systems include: ruler (君), minister (臣), people (民), and father (父). Chinese characters related to ancestor worship and reverence for gods include: demonstrate (示), fasting (斋), sacrifice (祭), worship (祀), disaster (祸), reverence (崇), prayer (祷), blessing (福), and auspiciousness (祥). Chinese characters related to the concept of "respecting the elderly" include: filial piety (孝), father (考), old age (耄), and advanced age (耄). Chinese characters related to the concept of unity between heaven and humans include: heaven (天), king (王).

Thinking patterns (including figurative thinking, holistic thinking, and dialectical thinking):

1. Reflecting figurative thinking, such as: sun (日), person (人), water (水),

- cow(牛), moon(月), mountain(山), fire(火), sheep(羊), root(本), wade(涉), sea(海), untie(解), if(若), be(是), initial(初), lead(牵), like(像), to go(至).
2. Reflecting holistic/comprehensive thinking, such as: above(上), below(下), wood(木), cow(牛), sheep(羊), shepherd(牧), tree(树), pine(松), forest(林), bamboo(竹), pole(竿), rice(稻), millet(稷), crop(稼), river(江), stream(河), lake(湖), sea(海).
 3. Reflecting dialectical thinking: In the construction of Chinese characters and word combinations, there is a hidden dialectical principle. Symmetry is an important characteristic of Chinese character construction. The oracle bone inscriptions from the Shang Dynasty paid attention to symmetry, avoidance, and reflection in the coordination principles. In the relationship between "character" and "character," there is a way of pairing and orderly arrangement, such as: ji(即) and ji(既), bei(北) and bi(比), zhi(陟) and jiang(降), zheng(正) and fa(乏), shang(上) and xia(下), gao(杲) and miao(杳), ao(凹) and tu(凸), etc. These reflect the thinking characteristics of emphasizing the unity of opposites. Many Chinese characters embody the simple dialectical thinking of ancient people. For example, the character "教" (teach) is explained in the SWJZ as "what the superior does, the inferior follows." It depicts a scene of a teacher holding a teaching whip to urge students to learn, with form, spirit, and sound all possessing great artistic expressiveness. The character "既" (already) uses the image of a person kneeling next to a food container and turning their face backward to represent the meaning of "eating full, already, completed." In the composition of characters like "化" (change), "北" (north), and "比" (compare), we can see the method of using the same unit form to express complex concepts. The understanding of the unity of good and bad luck is reflected in characters like "前" (before), "乱" (chaos), and "受" (receive). The acceptance of change is seen in the character "易" (easy). The understanding of the unity of contradictions is reflected in characters like "臭" (stinky), "祥" (auspicious), "市" (market), and "祝" (bless).

While the ideographic concept of "deep understanding of principles" is also reflected in the formation of English letters, these following examples would best manifest the influence of this feature.

U. In the year 1000 BC, the letter 'U' had a similar shape to the letter 'Y.' At that time, it was called 'waw,' representing a hole in a wooden peg or a needle hole. The shape of the hole reflected the cultural tradition of that historical period (being U-shaped instead of square). In the era of the Greeks, it was called 'upsilon.'

W. The origin of the letter 'W' can be traced back to the Middle Ages. It is formed by combining two 'V's, representing two connected wooden pegs. Charlemagne's scribes wrote two 'v's side by side with a space in between.

Y. The letter 'Y' is derived from 'V' and its root can be traced back to the Greek

letter Y (upsilon), which was known as the "letter of Pythagoras." In algebra, 'Y' is commonly used to represent the second unknown. Starting from the original 'upsilon,' the letter 'Y' was added by the Romans in the year 100 AD.

Z. The Phoenicians had a letter called 'zayin,' which meant "axe." It was associated with the symbol of lightning and represented the highest, worship, and deity, as seen in words like Zeus. Afterward, it was not used for several centuries until the arrival of the Normans in France and the emergence of words requiring the pronunciation of the letter 'Z.'

Through the above comparative analysis, it is not difficult to see that the ideographic principles of Chinese characters and the establishment of English letters have a certain degree of consistency. This consistency is primarily manifested in the shared visual-thinking pattern and dialectical perspective between the two. This comparative result also confirms Brown's (1991) theory of human universals, which states that regardless of the language people speak, they share similar social, customs, cultural, behavioral, psychological, and other attributes.

Analysis of the Process and Characteristics of the Morphological Evolution of Chinese Characters and English Letters

Through a comparative analysis of the origins and ideographic concepts of Chinese characters and English letters, we have found that they share similar modes of thinking and dialectical views such as "drawing inspiration from oneself," "drawing inspiration from external objects," and "exploring profound principles." Now, is there a similar pattern in the morphological evolution of Chinese characters and the evolution of English letters after their formation?

According to Zhu (2016), there is a cognitive correspondence between components of Chinese characters and English letters from the perspectives of their physical structures and cognitive psychology of language. Therefore, we can attempt to compare components with English letters. Chinese character components and English letters indeed share many commonalities. From a linguistic perspective, both Chinese character components (such as stroke combinations) and English letters are recurring and separable units of word formation. Research in cognitive psychology on character and word recognition suggests that English letters and Chinese character components have similar cognitive effects, namely, local features have a certain influence on global perception, which in turn affects reading comprehension of text (Yan, 2010).

With these questions in mind, let us separately discuss the process and characteristics of the morphological evolution of Chinese characters and English letters. By analyzing the evolutionary features of the two writing systems at the component level, including component forms, semantic functions of components,

patterns of component combinations, and layout patterns of components, we can explore the similarities and differences in the formation of characters in these two writing systems, thereby gaining a deeper understanding for their study and use.

Process of the Morphological Evolution of Chinese Characters

When discussing the morphological evolution and development of Chinese characters, we often associate it with the historical progression of oracle bone script, seal script, clerical script, regular script, and running script. This classification is based on the changes in the physical structure of Chinese characters and encompasses two directions.

On one hand, Chinese characters have developed in the direction of "complexification." From bronze inscriptions to ancient scripts like the Zhōu script and eventually to the clerical script, the rulers continually strengthened the orthodoxy and authority of the written language to maintain their rule, resulting in a more complex and comprehensive system of character forms. On the other hand, due to the complexity of the structural composition of Chinese characters, they were not conducive to popular usage. In response, Chinese characters evolved in the direction of simplification. From alliance documents and silk scripts to regular script and Song-style characters, the characters gradually simplified. The development process from clerical script to regular script, running script, and cursive script follows this trend. The stroke order became smoother, and the structure became more concise.

However, complexification and simplification are interrelated processes. On one hand, the development of the complex and official script is constantly influenced by popular and folk scripts. On the other hand, it further guides the development of simplified folk scripts while retaining the essential attribute of the form and meaning of Chinese characters. In this interactive process of morphological evolution, there is a pattern: regardless of complexification or simplification, the essential meaning of Chinese characters and the consciousness of aesthetic embellishment are combined. Let's analyze this pattern along a timeline.

Whether it is the ancient tribes depicting totems and writing together on artifacts (such as painted pottery) or the later Shang and Zhou dynasties transforming totems into graphic characters (inscriptions), they both reflect people's conscious use of pictorial patterns or totems to better beautify and express the influence of the written language while respecting its original meaning. The graphic characters used during the Shang and Zhou dynasties often employed mystical totems such as dragons and monsters to demonstrate the sacredness of royal power, as well as a genuine and unrestrained artistic style to reflect the life of that time.

Overall, the evolution and development of the form of Chinese characters, particularly during the Shang and Zhou dynasties, reached its pinnacle in the Bronze Age with diverse and variant forms, resulting in significant social changes and giving rise to the first peak in the history of Chinese thought and culture.

During the Spring and Autumn and Warring States periods, the evolution of

Chinese character forms gradually transitioned from being a tool encompassing "patterns," "characters," and "script" since the Western Zhou Dynasty to an appreciation of art through the beauty of "painting" and "calligraphy." Guo (1961) provided insightful commentary on this in his essay that "The Dialectical Development of Ancient Writing:" "In the Eastern Zhou Dynasty and onwards, the nature of calligraphy shifted towards decoration, such as the inscriptions on bronze vessels with rhythmic expressions, engraved in neat styles, and the script often appeared to be deliberately rendered in waves and zigzags... All of these decorative embellishments were influenced by aesthetic consciousness, serving the same purpose as patterns. This marked the beginning of China's tradition of treating writing as an art form."

From these descriptions above, it's clear that during the Eastern Zhou Dynasty and beyond, there was a transformation in the nature of calligraphy from a purely functional form to a decorative art. The shift is observed in inscriptions on bronze vessels, where writing took on rhythmic expressions, neat styles, and deliberate patterns like waves and zigzags. These decorative elements were obviously influenced by aesthetic consciousness, aligning writing with artistic expression. And this era marked the initiation of China's tradition of regarding writing not just as a utilitarian practice but as a genuine form of art.

Bird and insect scripts of the Spring and Autumn and Warring States periods were outstanding representatives of artisticizing Chinese characters through the fusion of "calligraphy" and "painting." The bird and insect scripts were widely popular during this period, using direct or abstract structural lines to write Chinese characters based on the basic forms of animals. Bird and insect scripts were predominantly used in various fields, such as bronze objects, bricks, and seals, by the nobility and aristocracy. However, due to its emphasis on decorative effects rather than the basic meaning of Chinese characters, this ornamental purification of characters eventually led to their decline in the field of writing.

After the pursuit of aesthetic awareness in the ornamentation of Chinese characters, the form of Chinese characters took a "rationalistic" approach in the Song Dynasty, reestablishing the integration of their semantic and artistic elements. The Song Dynasty was characterized by a focus on "rationalism," with a deep understanding and mastery of various objective laws. Whether in politics, philosophy, art, poetry, or natural phenomena, the Song Dynasty pursued the underlying "principles." The rise of Neo-Confucianism also fostered comprehensive development in the fields of economy, culture, and technology during the Song Dynasty. The emergence of Song-type characters separated the functions of semantic meaning and decorative embellishment, achieving progress in the development of writing, cultural dissemination, and artistic appreciation. As Song-type characters were based on calligraphy and were "rational" in nature, they were well-suited for mass printing. This practicality further brought characters from the imperial court to the general public, closely connecting cultural dissemination with the daily lives of ordinary people. The "rational" Song-type characters did not abandon the ornamental attribute of Chinese characters and laid the foundation for classical Chinese aesthetics. During

the creation of Song-type characters, lower-class intellectuals and woodblock craftsmen creatively decomposed characters into purified, common stroke elements, forming a set of formulaic aesthetic experiences and theories.

From this point onwards, using calligraphic art's certain characteristics in a systematic manner to create calligraphic art activities formally entered the historical stage. Although we observe a pattern of the combination of the inherent meaning and the aesthetic consciousness of Chinese character forms from clerical script to running script, this pattern did not bring about changes in the spatial configuration or the spiritual essence of Chinese characters. Chinese character forms still adhere to principles of squareness, symmetry, and stability, reflecting the traditional moderation, unity within diversity, and the integration of heaven and humanity that embody the Chinese national spirit.

A Comparison of the Component Theory in Chinese and English

Characters

The component theory is widely reflected in the study of Chinese and English linguistics and cognitive science. Han and Lin (1995) pointed out that both written Chinese and English can be divided into certain structural levels. By comparing the cognitive correspondence of the hierarchical structures of characters in the perceptual process, logical basis can be provided for drawing conclusions in research fields related to Chinese and English, such as the automatic processing of textual information (p. 334). Zhu (2016) stated that there is a cognitive correspondence between Chinese character components and English letters from the perspectives of structural form and psycholinguistics. Therefore, it is possible to compare Chinese character components with English letters. Chinese character components and English letters do indeed share multiple similarities. From a linguistic perspective, both Chinese character components (such as stroke combinations) and English letters are recurring and separable units of character formation or word formation. Results from cognitive psychology research on character and word recognition indicate that English letters and Chinese character components have similar cognitive functions, where local features have a certain influence on holistic perception. Yan (2010) pointed out that this influence has a certain impact on reading comprehension. Based on these studies, we can analyze and compare the features of component theory in Chinese and English characters, including component forms, semantic functions of components, styles of component combinations, and layout patterns of components. This analysis aims to explore the similarities and differences in character construction between the two languages, leading to a deeper understanding and research of both English and Chinese.

Due to the profound influence of the SWJZ, the study of Chinese characters has formed a tradition that emphasizes radicals while neglecting components (Zhang, 1990). Traditional methods of analyzing Chinese characters start with structural

analysis and use radicals with etymological meanings to group characters that contain these components into similar categories. Since the 1980s, with the vigorous development of computer-based Chinese character encoding and character recognition research, scholars have started to pay attention to the intermediate parts between the whole character and strokes, namely components. The theory of components in Chinese characters has gradually become a popular topic. Components have been given various names, such as "character roots," "components," "character elements," "character units," "construction units," "structural elements," and so on. However, the term "components" has gradually become the unified term because it accurately reflects the intermediate construction module from strokes to whole characters and is suitable as the basic unit for Chinese character encoding (Zhang, 1990).

Han and Lin (1995) conducted cognitive research on Chinese character components and English letters and summarized six commonalities between components and letters:

1. They are both structural levels that are smaller than whole characters or words and larger than strokes.
2. They are the smallest indivisible units of single characters or letters.
3. The total number of components or letters is much smaller than the number of single characters or words.
4. They are combined according to conventions in terms of pronunciation, meaning, and affixation rules to form whole characters or words.
5. Chinese characters typically have 2-3 components, while English words typically have 4-5 letters.
6. The alphabets of old kana, Korean, Vietnamese, and other scripts are derived from the transformation of Chinese character components, indicating that Chinese character components can be transformed into phonetic letters.

Based on these points, they pointed out that components, as an intermediate level of character structure, play an important role between the whole and the parts. As a common structural element for many Chinese characters, they serve as a bridge connecting individual characters with the set of whole characters.

However, there are also differences between components and letters. Han and Lin (1995) summarized two major differences between components and letters:

1. English words are composed of "letter strings" and are arranged in a one-dimensional linear sequence. The relative positions of letters are discrete, either before, in the middle, or after. On the other hand, the combination of components in Chinese characters is two-dimensional. It involves both separate and intersecting connections. The positional relationships can be vertical (up and down) or horizontal (left and right), and they can also be a combination of both.
2. The attributes of Chinese character components do not possess the dynamic characteristics of English letters and affixes, so they cannot generate a large number of new words like English does.

The introduction of the theory of components in Chinese characters has broken

through the limitations of traditional Chinese character studies based on the "Six Categories" and has opened up new paths for the development of Chinese character construction theory and teaching practices. When discussing components, it is inevitable to mention radicals, as radicals and components are two stages of the same issue. The traditional method of radical analysis, guided by the "Six Categories Theory" respects the systematic nature of the Chinese character system itself. Radicals focus on the analysis of the internal sound and semantic structure of Chinese characters, specifically the analysis of semantic or phonetic components in compound ideographic characters and phonetic-semantic characters. On the other hand, components focus on the analysis of the visual structure and appearance of Chinese characters. They have hierarchy and can be divided into primary components, secondary components, and so on, generally not involving the theoretical aspect of character construction. Furthermore, radicals refer to the result of analyzing and splitting compound characters and do not necessarily refer to all the units obtained from splitting Chinese characters, while the term "components" does not only stay at the character level but can serve as a genuine character construction unit at various levels of different types of characters (Zhu, 2016).

Cui (1997), based on Zhang 's component-based teaching method, affirmed the theory of components in teaching through quantitative research methods. By statistically analyzing the component length, compoundability, and semantic features of 801 Class A Chinese characters, Cui concluded that the use of component theory contributes to the memorization of Chinese characters. Additionally, Cui (1997) proposed a component system applicable to the teaching of Chinese as a foreign language, called the "Basic Component + Basic Character" system. In general, the theory of components in Chinese characters emphasizes the analyzability and combinability of Chinese characters and plays a positive role in modular learning of Chinese characters and bridging the gap with English root words and affixes. The research on the theory of components provides theoretical support for its application in the field of teaching. However, there are still differences between Chinese character components and English words.

The Process and Characteristics of the Evolution of English Letters

First, let's take a look at the concept behind the construction of English letters. The origin of English letters can be traced back to ancient scripts, such as Egyptian hieroglyphs and Phoenician letters. Over time, the shapes of the letters gradually simplified and became more abstract. The construction of modern English letters is primarily based on pictographic and ideographic features. For example, the letter "A" originally represented the head of an ox, while its current shape is an abstract symbol. Other letters such as "B," "C," "D," etc., also retain certain pictographic features.

The evolution of English letters in terms of their forms is different from that of Chinese characters. Throughout the centuries, the form of Chinese characters has maintained its original pictographic and ideographic features, while English letters

have gradually lost their pictographic features and transformed into symbols. In terms of form, letters have undergone a series of changes from Egyptian script to Phoenician script to Greek script, and finally settled on the Roman or Latin alphabet, becoming the most widely used script in the world. Like Chinese characters, English letters often use different combinations of lines to express complex meanings and emotions, forming distinct visual symbols for communication.

Figure 5

Evolutionary Chart of English Letter Forms



Can these characteristics be considered as similar patterns of development where both English letters and Chinese characters evolve from functional and semantic meanings to encompass artistic and aesthetic functions? The evolutionary history of typography seems to convey some insights that may lead us to answers. As letters progress from ancient totemic drawings to the forms we can write, print, sculpt, design, and play with (e.g., LEGO letters), they acquire new forms that carry symbolic meanings and cultural connotations, intertwining their representational attributes with aesthetic value, thus embodying a dual value (Diringer, 2011). Is it a mere coincidence that this process aligns with the inherent significance and calligraphic consciousness seen in the development of Chinese characters? Let us refer to Smirna (2017) for an answer: "Because any script is a unity of human pursuit of beauty, happiness, and eternity" (p. 7).

The conceptualization of Chinese characters is primarily based on the "Six Categories Theory," which served as the classification and construction principle for ancient Chinese characters. The six categories include pictographs, indicative signs, associative compounds, phonetic loans, phonetic compounds, and derivative characters. Among these six methods of character construction, pictographs and indicative signs are the most direct and bear resemblance to the construction principles of English letters. The pictographic elements of Chinese characters represent the external forms of objects through drawings, while indicative signs use symbols to represent the meanings of objects. This corresponds to the pictographic and indicative features of English letters.

Conclusion

By comparing and analyzing the conceptualization and structural methods of Chinese characters and the twenty-six English letters, we can observe not only linguistic similarities between the formation principles of English letters and the three

basic principles of Chinese character formation ("taking reference from the self, taking reference from objects nearby, and delving into principles"), such as the linguistic features of pictographs, associative compounds, and indicative signs, but also shared social, traditional, and cultural aspects. This suggests that different ethnic groups share certain commonalities in life experiences, natural cognition, and thinking habits. Exploring these commonalities helps facilitate learning and communication between Chinese and English. This conclusion further validates the value and guiding significance of the concept of human universals in cross-linguistic and cross-cultural research.

Moreover, by emphasizing social and cultural aspects, traditional customs, and cognitive processes in learning psychology, your research contributes to breaking the tradition of linguistic research solely focusing on language differences. This provides a broader perspective and richer dimensions for Chinese-English learning, promoting the development of cross-linguistic and cross-cultural communication. In summary, this study involves a comparative analysis of the conceptualization and structural methods of English letters and Chinese characters, exploring their shared human characteristics. As the field is still in its early stage of theoretical analysis and discussion, lacking experimental research results, constructive criticism and feedback from colleagues are welcome to address any limitations.

References

- Bourdieu, P. (1989). Social space and symbolic power. *Sociological Theory*, 7(1), 14–25. <https://doi.org/10.2307/202060>
- Brown, D. E. (1991). *Human universals*. New York City: McGraw-Hill.
- Cassirer, E. (1944). *An essay on man: An introduction to a philosophy of human culture*. New Haven: Yale University Press.
- Chomsky, N. (2006). *Language and mind* (3rd ed.). Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9780511791222>
- Cui, Y. H. (1993). Chinese character components and teaching Chinese as a foreign language. *Language and Writing Application*, 23(3), 13-16.
- Diringer, D. (2011). *Ancient, medieval and oriental-lettering, calligraphy, typography*. New York: Dover Publications.
- Drucker, J. (1995). *The alphabetic labyrinth: The letters in history and imagination*. London: Thames & Hudson.
- Fairhurst, G. T., & Grant, D. (2010). The social construction of leadership: A sailing guide. *Management Communication Quarterly*, 24(2), 171–210.
- Gumperz, J. J. (1964). Linguistic and social interaction in two communities. *American Anthropologist*, 66(6), 137–153. <http://www.jstor.org/stable/668168>
- Guo, M. R. (1961). *The dialectical development of ancient writing*. Beijing: Beijing People's Publishing House.
- Haley, A. (1995). *Alphabet: The history, evolution, and design of the letters we use today*. New York: Watson-Guptill.
- Han, B. L. & Lin, Z. X. (1995). On the cognitive correspondence between Chinese character components and English letters. *Psychological Science*, 11(2), 21-26.
- Leeds-Hurwitz, W. (2009). Social construction of reality. In S. Littlejohn, & K. Foss (Eds.), *Encyclopedia of Communication Theory* (pp. 892-895). Thousand Oaks, CA: Sage Publications.
- Lin, X. L. (2017). *Han Zi Wang Guo*. Beijing: SDX Joint Publishing Company.
- Lowenthal, P., & Muth, R. (2008). Constructivism. In E. F. Provenzo, Jr. (Ed.), *Encyclopedia of the social and cultural foundations of education* (pp. 177-179), Thousand Oaks, CA: Sage.
- Lu, Z. D. (1981). *General theory of explaining the characters in Shuo Wen Jie Zi*. Beijing: Beijing Publishing House.
- Ma, J. B. (2008). The sociocultural theory and second language acquisition research from a sociocultural perspective. *Journal of Tianjin Foreign Studies University*, 15(3), 9-15.
- Needham, J. (1996). *Science and civilization in China series*. Cambridge: Cambridge University Press.
- Qin, Y. Q. (2006). Constructivism: Intellectual origins, theoretical schools, and academic ideals. *International Political Studies*, 3(1), 18-20.
- Raskin, J. D. (2002). Constructivism in psychology: Personal construct psychology, radical constructivism, and social constructionism. *American Communication*

- Journal*, 5(3), 1–25.
- Ruggie, J. G. (1998). What makes the world hang together? Neo-utilitarianism and the social constructivist challenge. *International organization*, 1(2), 855-885.
- Sacks, D. (2003). Letter perfect: The marvelous history of the alphabet from A to Z. New York: Broadway Books.
- Smirna, K. (2017). *The history of typography and its journey through art*. retrieve from: <https://www.widewalls.ch/magazine/typography-history-art>
- Vico, G. (1968). *The new science of Giambattista Vico*. New York: Cornell University Press.
- Yan, Y. (2010). An analysis of component-based instruction in teaching Chinese as a foreign language. *Overseas Chinese Language Education*, 4(1), 13-19.
- Zhang, W. X. (1990). From Chinese character components to Chinese character structure. *Chinese Language Teaching Worldwide*, 10(1), 4-8.
- Zhu, D. X. (1982). *Grammar handbook*. Beijing: Beijing Commercial Press.
- Zhu, Y. (2016). The application of component theory in teaching Chinese characters for foreign language learners. *The Readers' Journal*, 12(1), 22-24.