

Color Conceptualization of AGE in English and Chinese

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Abstract—Both in English and Chinese there are extensions of color to human age. For gaining some knowledge of the differences in the extension in the two languages, color categories are discussed and compared first and then evidences in dictionaries and corpora are collected and compared as well. It is found that there is a higher possibility of color associations with age in Chinese than English. What's more, there are more colors involved in color associations in Chinese.

Index Terms—basic color term, color categories, color association

Color shift is often conceived as the growth process of plants or human beings in Chinese. When it is applied to plants, there are *green* and *yellow* for ripeness. When it is referred to human beings, there are *black* and *white* for young and old age. Generally speaking, color is a distinctive property of objects and human beings usually attach much figurative associations to it. In other words, color is a basic concept which often serves a middle stage for figurative associations, metonymically and metaphorically.

As for different cultures like English and Chinese, are there any similarities or differences in the association between age and color? For example, in Chinese a person's life can be compared to be *lí-míng* (黎明 *black bright or dawn*) and *huáng-hūn* (黄昏 *yellow dim or dusk*), as seen in the expression *huáng-hūn-liàn* (黄昏恋 *yellow dim love*) which metaphorically refers to a love affair between two old people. In addition, the daytime is *bái-tiān* (白天 *white sky*) and the nighttime is *hēi-yè* (黑夜 *black night*). A busy work life is said to be *qǐ-zǎo-tān-hēi* (起早贪黑 *to work from dawn to night*). Do English have similar conceptualization of color for age as Chinese does? These questions require a consistent comparison between English and Chinese in terms of the data collected from dictionaries like The Longman Dictionary of Contemporary English (LDOCE) and The Contemporary Chinese Dictionary (CCD), and from corpora such as British National Corpus (BNC) and Center for Chinese Linguistic PKU (CCL).

I. PRIOR STUDIES ON COLORS

Color has always been a focus for linguistic studies, synchronically and diachronically. For example, linguists like Berlin, Kay and their colleagues propose color categorization by comparing about 20 languages and put forward basic color terms as well as color evolution itinerary by Berlin and Kay (1969) and Kay and McDaniel (1978). Heider (1971, 1972) and Rosch (1973) regard the focal points of basic color terms as the best exemplars or prototypes of the concept, color. Wierzbicka (1990) suggests that color concepts are perceptually anchored in natural prototypes or natural reference points, i.e., culturally salient natural objects or phenomena, aiming to explain the range of color terms and associate with connotations and some metaphorical uses. Color categorization is also a heated topic among Chinese linguists such as Liu Yunquan (1990), Yao Xiaoping (1988), Wu Jianshe (2010), and Li Hongyin (2003). Different linguists come to distinct views on the number of basic color terms in Chinese, especially the categorization of *qīng* (青 *qing*).

Semantics of color is also a focus for academic studies. Typically, Niemteier (2007) explores color metonymies in English based on the discussions of bluestockings and blue movies. Hamilton sees color in English from a metonymical and metaphorical view and classifies different types of color metonymies and metaphors on the bases of The Historical Thesaurus of English. Her findings are really enlightening. As for contrastive study of color metonymies and metaphors in Chinese and English, most linguists describe the similarities and differences by means of superficial description of meanings color terms carry in the two languages.

As mentioned above, Chinese and English differ in their conceptualization of age in terms of colors. For gaining some knowledge of cross-cultural differences, queries are made into color conceptualization of age in terms of color categories, color metonymies, color metaphors

II. COLOR CATEGORIES IN ENGLISH AND CHINESE

It has been discovered that color term inventories vary across languages (Davies and Corbett 1997:494). This means that color categorization is not always universal but varies from language to language, possibly because color is not just a physical phenomenon but our perceptual interpretation of light, which exists in socially anchored linguistic systems (Lucy 1997:340-341). Color terms are linguistic categories concerning both physical perception and cultural beliefs. It is a universal conduct among almost all languages to divide the continuous color spectrum into a restricted inventory of color categories. The naming of these categories may vary from culture to culture. Similar cultural needs and the cultural contact between speakers of different languages are regarded as factors for similarities across different cultures and contribute to the origins of linguistic color categories in different societies (Roberson and Hanley 2010:190, 194).

English is believed to have 11 basic color terms and this also holds in Chinese, but the inventory of basic color terms are different, which is a main topic of the study of color categorizations in English and Chinese. What's more, the ranking of basic color terms in English and Chinese shows that some basic color terms are more psychologically salient than the others in a given culture.

TABLE 1
BASIC COLOR TERMS IN ENGLISH AND CHINESE

Basic color terms	English	Chinese
Evolutionary sequence	white, black, red, yellow, green, blue, purple, brown, gray, pink, orange	hēi (黑 black), bái (白 white), hóng (红 red), huáng (黄 yellow), qīng (青 qing), lǜ (绿 green), zǐ (紫 purple), huī (灰 gray), lán (蓝 blue), hē (褐 brown), chéng (橙 orange)
Frequencies	black, white, red, yellow, green, blue, purple, brown, gray, pink, orange	bái (白 white), hóng (红 red), qīng (青 qing), hēi (黑 black), huáng (黄 yellow), lǜ (绿 green), huī (灰 gray), lán (蓝 blue), zǐ (紫 purple), hē (褐 brown), chéng (橙 orange)

Based on the evolutionary sequence, both English and Chinese are similar, with *white* and *black* followed by *red* and *yellow*. But they differ much in the order *blue*.

TABLE 2
THE FREQUENCIES OF BASIC COLOR TERMS IN BNC AND CCL

BNC		CCL	
Colors	Frequencies	Colors	Frequencies
Black	19,140	bái (白 white)	7,818
White	18,317	hóng (红 red)	7,236
Red	11,094	qīng (青 qing)	6,949
Green	9,307	hēi (黑 black)	4,995
Blue	8,304	huáng (黄 yellow)	4,662
gray	4,812	lǜ (绿 green)	2,474
Brown	4,344	huī (灰 gray)	1,619
Yellow	3,850	lán (蓝 blue)	1,186
Pink	2,714	zǐ (紫 purple)	797
Orange	2,045	hē (褐 brown)/ zōng (棕 brown)	437
Purple	1,097	chéng (橙 orange)	101

It's partly due to the culturally specific color term *qīng* (青 qing) in Chinese, which can cover the spaces of *green*, *blue* and even *black*. By referring to the frequencies of the 11 basic color terms in these two languages, both *white* and *red* have much higher frequency as seen in Table 2.

In English the most frequently used color term is *black*, whereas in Chinese it is *white*. What's more, English tends to use *green* and *blue* more frequently than their Chinese counterparts, while Chinese has the tendency to use *qīng* (青 qing) and *huáng* (黄 yellow) more often than English.

Seen from the two tables, the earlier the color terms appear, the more figurative they are, and the more frequently they are used.

III. THE METAPHORICAL EXTENSION OF BASIC COLORS

The association between color and age can be found both in English and Chinese. Firstly, an investigation is made into the dictionaries for linguistic data for the association between COLOR and AGE. Second, corpora of native languages like BNC and CCL are compared for further evidence of such association.

Dictionaries are collections of recorded usage of language in practical life and they are able to provide well-established usage with relation to cultural experiences. The 11 basic color terms in English and Chinese are investigated into dictionaries LDOCE and CCD in search of evidence for the associations between color and life.

TABLE 3
THE LEXICOGRAPHICAL EVIDENCE OF AGE IS COLOR

Colors	LDOCE	CCD
Black	0	2
White	0	4
Red	1	1
Green	2	0
Blue	0	0
Gray	2	0
Brown	0	0
Yellow	0	4
Pink	0	1
Orange	0	0
Purple	0	0
Qing	0	10

In English a young and inexperienced person can be compared to be a young plant or animal such as *be green* and *greenhorn*. An old person is often referred as *gray* which is an ordinary hair color of an old man, thus *the gray vote* refers to the votes of the old people and *gray pound* means the money which the old have. Besides *green* and *gray*, *blue* sometimes is extended to old age as *blue rinse*, originally a rinse for tinting gray hair, later picks up the reference to an elderly woman with conservative views. Comparatively, Chinese has more color terms involved in the association between color and age. For example, there are many opposite color pairs for young and old age including *bái* (白 white) and *hēi* (黑 black), *qīng* (青 qing) and *bái* (白 white), *huáng* (黄 yellow) and *bái* (白 white), and *hēi* (黑 black) and *huī* (灰 gray). And these color terms often co-occur with words for hair, including *sī* (丝 thread), *fà* (发 hair), *máo* (毛 hair), *tóu* (头 head) or *shǒu* (首 head). *Fà* (发 hair) occurs most in the collocation with *hēi* (黑 black), *bái* (白 white), *huī* (灰 gray), *huáng* (黄 yellow) and *lǜ* (绿 green), and *sī* (丝 thread) usually occurs with *yín* (银 silver) and *qīng* (青 qing).

Chinese also correlates facial color with age. For example, redness in the face means 'being young and thus attractive' while yellowness in the face means 'being old and thus unattractive'. For example, *hóng-yán* (红颜 red face), *zhū-yán* (朱颜 red face), which is more likely associated with attractiveness of a woman or her beauty. The expressions, like *zhū-yán* (朱颜 red face) and *hóng-yán* (红颜 red face), usually refer to young people, who are often thought to have redness in the face, i.e. physical color for youth, good health and thus beauty. On the other hand, *huáng-lián-pó* (黄脸婆 yellow face wife) is an ironic expression when referring to a woman, especially a married one whose red face is replaced by a yellow face, a symbol of lost youth and beauty. In addition, the color of the other body parts and the color of clothing can represent age, such as *green hand*, *yellow beak*, *huáng-kǒu* (黄口 yellow beak), *qīng-yī* (青衣 qing clothing), and so on.

TABLE 4
THE CORPUS EVIDENCE OF THE EXTENSION BETWEEN COLOR AND AGE

Colors	BNC				Colors	CCL			
	a	b	c	d		a	b	c	d
Black	0	0	0	0	hēi (黑 black)	43	0	0	0
White	0	0	0	0	bái (白 white)	53	150	0	0
Red	0	0	0	0	hóng (红 red)	0	542	0	46
Green	0	0	0	0	lǜ (绿 green)	12	0	0	0
Blue	0	0	0	0	lán (蓝 blue)	0	0	0	0
Gray	162	0	0	0	huī (灰 gray)	53	0	0	0
Brown	0	0	0	0	hè (褐 brown)/ zōng (棕 brown)	0	0	0	0
Yellow	0	0	0	0	huáng (黄 yellow)	23	56	25	0
Orange	0	0	0	0	chéng (橙 orange)	0	0	0	0
Purple	0	0	0	0	zǐ (紫 purple)	0	0	0	0
Pink	0	0	0	0	qīng (青 qing)	180	0	0	0

From the discussion above, it is clear that the extension between color and age has 4 patterns: a) The hair color stands for age; b) the facial color stands for age; c) age is the color of the body parts; d) age is the color of clothing. For more linguistic evidence, the inquiries into the corpora are made. The results are shown in Table 4.

According to the results in Table 4, in English *gray*, usually in the collocation with hair, is often associated with old age, while the other colors do not often have such tendency. On the other hand, in Chinese there are more colors

associated with young and old age, mostly represented in the combination with hair. What's more, color terms in Chinese can be combined with body parts, clothing and accessories to refer to different ages.

IV. FIGURATIVE ASSOCIATIONS OF COLOR FOR AGE

Color is mainly a visual perception. People tend to employ different visual perception of objects to express various age. Some associations are directly based on the visual perception while some are conceived as abstractions on the basis of color.

TABLE 5
COLOR METONYMIES RELATED TO TIME IN CHINESE AND ENGLISH

Color metonymies	Chinese	English
body parts	<i>huáng-máo-xiǎo-zǐ</i> (黄毛小子 yellow-haired boy), <i>huáng-liǎn-pó</i> (黄脸婆 yellow-faced wife), <i>bái-fà-rén</i> (白发人 white-haired man), <i>qīng-tóu-zǎi</i> (青头仔 qing head boy)	grey hair, green hand
clothing	<i>fēn-lǐng</i> (粉领 pink collar), <i>qīng-yī</i> (青衣 qing clothing)	/
accessories	<i>Huáng-huā-nǚ</i> (黄花女 yellow flower girl), <i>hóng-zhuāng</i> (红妆 red makeup)	/

Though Table 5 cannot list all color metonymies for age, it can still help to shed light on the cross-cultural difference. The color metonymies in Chinese are more fixed than the counterparts in English.

A. Color of Body Parts Stands for Age

Langacker (1987: 149; see also Lorena Pérez Hernández 2000: 261) contends that time is a primitive, non-derived, basic notion. Lakoff and Johnson (1999: 137) hold that in English time is primarily conceptualized in terms of SPACE, and MOTION through space, THE TIME ORIENTATION METAPHOR, THE MOVING TIME METAPHOR, THE MOVING OBSERVER METAPHOR. This argument is supported by Croft (2006: 278) states that motion involves time, change and location. Time is ontologically understood in terms of things (that is, entities and locations) and motion (Lakoff 2006: 201). Age, as a subcategory of time, is no exception. The growing process from young to old is often understood in terms of color variation, generally from dark colors to light colors. In English *pink* and *blue* are often cognitively interpreted as color for babies. Then *gray* is metonymically associated with old age. On the other hand, in Chinese it is common to find variant color terms associated with age in Chinese, such as *qīng* (青 *qing*), *huáng* (黄 *yellow*), *lǜ* (绿 *green*), *bái* (白 *white*) and *hēi* (黑 *black*).

TABLE 6
THE CORPUS EVIDENCE OF THE EXTENSION BETWEEN COLOR AND AGE

language	Hair color	examples	age
English	gray	Gray hair	Old age
Chinese	Black Yellow Red	黑发 (black hair) 绿发 (green hair) 绿鬃 (green hair) 青丝 (qing hair) 青头 (qing head) 黄毛 (yellow hair) 红颜 (red face)	Young age
	White Yellow	白发 (white hair) 灰发 (gray hair) 黄发 (yellow hair) 黄脸婆 (yellow-faced wife)	Old age

Seen from Table 6, HAIR COLOR STANDS FOR AGE exceeds over FACIAL COLOR STANDS FOR AGE. In addition, Chinese tends to have more colors involved in color metonymies of body parts for age. In English the most striking hair color indicating old age is *gray* and it is hardly to find a reversed color for young age.

- (1) a. He had aged: **his hair was touched with grey**, and his face was haggard. (BNC-AC6 1889)
- b. There is the age at which I will grow into my own maturation, and there is the age at which my hair has started to **turn grey**. (BNC-G2V 3447)
- c. She was sitting beneath the narrow, barred window when he entered the room, and the first lying ashen in her fair hair; there was **more grey** than gold in it now. (BNC-K8S 2102)

Examples of (1) indicate that when one is aging, his or her hair color will be *gray*. In Example a and b, there are obvious clues like the noun phrase *the age* and the verb phrase *have aged* to hint that hair turning *grey* is caused by the age, while in Example c there are no hints like *age* or *aged*, the readers can still predict regarding to the hair color that

she is not as young as the one he once remembered or knew. Thus, here the combination of the color *grey* and the body part *hair* is associated with age, or time, metonymically referring to the aged person.

The contrast in HAIR COLOR STANDS FOR AGE can be shown in Figure 1, which further shows the color *white* in Chinese, reversed to *black* semantically, is opposite to different colors lexically. For example, the contrast between *black* and *white* hair refers to different ages, young and old. When referring to an old man, it is accepted to say *bái-fà-rén* (白发人 *white hair man*), or more outspokenly *bái-fà-lǎo-rén* (白发老人 *white hair old man*) or *bái-fà-lǎo-zhě* (白发老者 *white hair old man*). When referring to a young man, it is common to say *hēi-fà-rén* (黑发人 *black hair man*) or *qīng-tóu-xiǎo-huǒ* (青头小伙 *qing head young man*), or in Cantonese *qīng-tóu-zǎi* (青头仔 *qing head boy*). The color terms *hēi* (黑 *black*) and *qīng* (青 *qing*) form a contrast of hair color with *bái* (白 *white*) to indicate different ages.

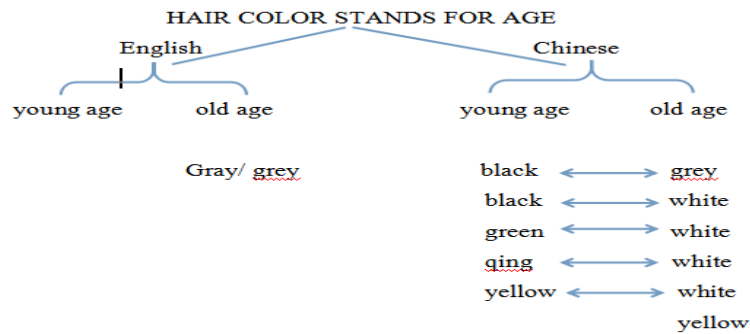


Figure 1. reversed colors of HAIR COLOR STANDS FOR AGE in English and Chinese

- (2) a. 这个道理是很容易理解的。相濡以沫的几十年夫妻生活，从青丝到白发，还有什么是对方不了解的呢？
(It's easy to understand that a couple who have lived together from black hair to white hair, caring for each other for scores of years, are sure to know each other well.) (CCL)
- b. 舞台四周，白发老者，青头小伙，坐满了前来看戏的人。(The audience, including the white-haired old men and black-haired young men, was seated around the stage.) (CCL)
- c. 现在他们已经作古，未曾想这白发人却去送黑发人，真是不可思议！(Now they are no more. it's never thought before that the white-haired joined the funeral procession of the white-haired. So incredible!) (CCL)
- d. 从 1947 年在美国研究 WTO 开始，五十年过去了，我也从黑发到灰发，到白发直到现今的无发。(Fifty years has passed by since the start of WTO research in US in 1947. I have experienced from black hair to gray hair, to white hair and to hairless now.) (CCL)

In the examples of (2), it is obvious that the color terms *hēi* (黑), *qīng* (青 *green or blue*) and *bái* (白 *white*) appear in the combination with words like *sī* (丝 *silk*), *fà* (发 *hair*), or *tóu* (头 *head*) referring to the young or the old respectively. It seems a common sense that the young are usually black-haired while the old often have white hair. Therefore, people commonly tend to associate youth with black hair and old age with white hair in their cognition. Examples of (2a) and (2b) show that the color term *qīng* (青) doesn't refer to the same color as in the expressions like *qīng-tiān* (青天 *blue sky*), *qīng-cǎo* (青草 *qing grass*), etc. The color term *qīng* (青) in (2a) and (2b) stands as the opposite color to *bái* (白 *white*), an equivalent to the color *hēi* (黑 *black*).

The reversion between *yellow* and *white* is exceptional. In *huáng-tóng-bái-sǒu* (黄童白叟 *yellow child white old man*)¹, the two color terms *huáng* (黄 *yellow*) and *bái* (白 *white*) form a contrast of hair color for different ages, with *huáng* (黄 *yellow*) for young and *bái* (白 *white*) for old. But *yellow* can be an embodied color for old age in the idiom *huáng-fà-chū fú áo* (黄发垂髫), in which *huáng-fà* (黄发 *yellow hair*) literally refers to the hair of an old man turning from white to yellow, symbolizing longevity among ancient Chinese, thus metonymically meaning an old man.

- (3) a. 《论衡·状留》：“吕望之徒，白首乃显；百里奚之知，明于黄发”。(Lun Heng.Zhang liu: Wang Lü's talent was seen till white hair; Xi Baili's wits were shown till yellow hair.) DAC
- (4) b. 这是一个反传统的思路。过去一直号召的是“扎根农场”、“黄毛丫头干到老太婆；认为只有死守农场，才能办好农场。(This thought ran against the tradition. In the past the slogan was settling down on the farm” and “working from a yellow-haired girl to an old woman”; it was believed that only sticking to the farm could run it well.”) (CCL)

¹ In Jiuyong Idiom Dictionary, edited by Wen Tang, *huáng-tóng-bái-sǒu* (黄童白叟) is similar to the idiom *huáng-fà-chū fú áo* (黄发垂髫), in which *huáng-fà* (黄发 *yellow hair*) literally refers to the hair of an old man turning from white to yellow, symbolizing longevity among ancient Chinese, thus metonymically meaning an old man. For avoiding misunderstanding and inconsistency in the explanation in the thesis, it is not included in the text. Similarly, in another idiom like *huáng-huā-wǎn-jí é* (黄花晚节 *yellow flower late morality*), *huáng-huā* (黄花), referring to chrysanthemums, which can endure the coldness in winter, which people conceptualize the same as *wǎn-jí é* (晚节 *the moral integrity in one's later years*).

(3)a shows both white hair and yellow hair refer to old age, and (3)b describes a young girl in terms of yellow hair. When *yellow* is associated with old age, it has no color terms for its opposite. It is common sense among Chinese that ducklings and chicks have yellow feathers. People tend to ontologically conceptualize this into thinking that a boy or a girl of the tender age is called *huáng-máo-xiǎo-zǐ* (黄毛小子 *yellow hair boy*) or *huáng-máo-yā-tóu* (黄毛丫头 *yellow hair girl*) in (3)b. It does not necessarily mean that he or she does not have yellow hair. Here the color term *huáng* (黄 *yellow*) with *máo* (毛 *hair*) features a person's body parts, stressing on the tender age of the person.

The expressions like *hóng-yán* (红颜 *red face*), *zhū-yán-lǜ-fà* (朱颜绿发 *red face green hair*), *huáng-liǎn-pó* (黄脸婆 *yellow face wife*) show that besides hair color, facial color is also extended to age. These involve colors terms like red and green. It's an embodied cognition that a young man usually has ruddy or rosy cheeks.

B. Clothing Color Stands for Age and Color of Accessories Stands for Age

Besides body parts, the color of clothing or accessories are also related with age in Chinese. However, there are hardly any such color metonymies related to age to be found in English.

As explained above, the color term *huáng* (黄 *yellow*), contrasting with *qīng* (青 *qing*) and *lǜ* (绿 *green*), is associated with oldness. Interestingly, the color term *huáng* (黄 *yellow*), on the other hand, can also be related with someone inexperienced or young, as shown in the examples of (4).

- (4) a. 直到那些黄花闺女被奸，有的身遭摧残，影响健康的，才逐渐引起人们的关注。(Until those **virgins** were raped, even some having their health seriously harmed did it become the public concern.) (CCL)
- b. 他不能不时刻小心，都是不到20岁的黄花女啊，如果出了闪失，如何向人家父母交代呢！(He had to be careful all the time, because they were all **maidens** of less than 20 years of age. Once something bad happened to them, how could he account for your parent?) (CCL)

The relation between *huáng-huā* (黄花 *yellow flower*) and inexperience possibly originates from the fashion especially in Tang and Song Dynasties that young maidens wore yellow paintings or attached yellow cuttings onto the forehead, which they did not do after marriage. The paintings or cuttings carry the symbol of virginity then. It is also possibly related to the conviction that things made of *yellow* were usually regarded as noble and bright ones and virginity was often thought to be precious possession for an unmarried woman. What's more, *huā-huáng* (花黄 *flower yellow*) was regarded as beauty, as seen in the examples of (5).

- (5) a. 当窗理云鬓，对镜贴花黄—《乐府诗集之横吹曲辞·木兰诗》(Combing hair by leaning against the window, rubbing **hua-huang** by looking into the mirror.—Cross Blow·Mulan Poem of Yuefu Poetry)
- b. 留心散广黛，轻手约花黄—《咏镜照》费昶(南朝梁)(Drawing black eyebrows carefully, rubbing **hua-huang** softly—Ode to Looking into the Mirror by Chang Fei in Liang, South Dynasty)
- c. 鸳鸯裁锦袖，翡翠贴花黄—《踏歌词》崔液(唐)(Embroidering Mandarin ducks onto the silky sleeve, attaching **hua-huang** with emerald—Chants by Ye Cui in Tang Dynasty)

Thus, *huā-huáng* (花黄 *flower yellow*) or *huáng-huā* (黄花 *yellow flower*) develops an indication of a woman without sexual experience or a virgin in modern language. This metonymy indicates the innocent youth, manifesting the sub-metaphor INEXPERIENCE IS YELLOW due to their young age.

Red is also a color often thought to be a symbol of youth, especially young and beautiful women in Chinese, reflected in clothing color such as *hóng-xiù* (红袖 *red sleeve*), *hóng-qún* (红裙 *red skirt*), *hóng-zhuāng* (红装 *red clothing*), *fěn-lǐng* (粉领 *pink collar*), and so on, and represented in color of accessories such as *hóng-zhuāng* (红妆 *red makeup*). In Chinese Peking Opera, black clothing is usually worn by young women characters, thus the character *qīng-yī* (青衣 *qing clothing*) particularly refers to young women in the opera.

In CLOTHING COLOR STANDS FOR AGE and COLOR OF ACCESSORIES STANDS FOR AGE, it is common that youth, especially youth of a woman, gets special attention and stands out in Chinese's conviction of age, which is hardly seen in English. There are no opposite colors involved in this metonymical association.

C. Color Metaphor Age Is Color

Color, as one feature of things and a sub-domain of SPACE, is coordinated with the extension of the visual field. Both Chinese and English have associated the color *green* with youth, based on daily observation of plants or animals which co-exist as human beings. Again, Chinese overtakes English in the involvement of colors, especially opposite colors. For example, The metaphorical association of color with age is shown in terms of color changes of plants, as shown in the examples in (6):

- (6) a. ...远不如他坟头的野草，会今年黄了，明年又绿地持续下去，十年也还如一日。(CCL) (not better than the wild grass on his tomb, which can keep on **turning yellow** this year and turning green next year.)
- b. *rén-lǎo-zhū-huáng* (人老**珠黄** as one grows old, **the pearl turns yellow**: the old age, especially referring to an old woman)

The examples in (6) exemplify the time orientation metaphor. In (1a), the color terms *huáng* (黄 *yellow*) and *lǜ* (绿 *green*) are grammatically verbs. Here the alternative change of colors—from *huáng* (黄 *yellow*) to *lǜ* (绿 *green*)—manifests a circulation of seasonal changes: In autumn the grasses become *yellow* and dry, while in spring, the grass

turn green. And in daily life we also see that most of the fruits turn from *green* to *yellow* when getting ripe. Such is what a human perceives in daily experiences. Thus, change of time is defined in terms of color, i.e. AGE IS COLOR. Then in (6b), the expression *rán-lǎo* (人老 *person old: one grows old*) is paralleled with *zhū-huáng* (珠黄 *pearl yellow: the accessories turn yellow because they are well-worn.*) Here *lǎo* (老 *old*) and *huáng* (黄 *yellow*) form a pair of synonyms. Similar to the state that a human grows old or *lǎo* (老 *old*), her accessories *zhū* (珠 *jewelry*) are worn out. Metaphorically, The *yellowness of something* indicates that the best time (especially referring to one's youth) has gone forever. These examples manifest a habitual Chinese way of thinking that *yellow* is a color associated with the concept of oldness while *green* is a color related with the concept of youth. The color *huáng* (黄 *yellow*) in (6)a and b stands contrast to *lǜ* (绿 *qing*) in ancient Chinese, indicating different periods of time: *lǜ* (绿 *qing*), *the color for something newly born*, is then associated with somebody who is young, while *huáng* (黄 *yellow*), *the color for something well grown but fading in vitality*, is related with somebody old, as shown in the following correspondences:

The color metaphor: AGE IS COLOR

Correspondence: difference periods correspond to different shades of color

A person corresponds to a leaf

Something new or somebody young corresponds to *lǜ* (绿 *green*)

Something old or somebody old corresponds to *huáng* (黄 *yellow*)

In this sense, the metaphor AGE IS COLOR entails two sub-metaphors: YOUTH IS GREEN and OLDNESS IS YELLOW. YOUTH IS GREEN can be found in English, but not its opposite.

In ancient Chinese, there was no distinction made between the color *blue* and *green*. Both colors were terms as the color term *qīng* (青 *qing*), as in the examples like *qīng-tiān* (青天 *qing sky*), *qīng-cǎo* (青草 *qing grass*), etc. And in the expressions like *qīng-nián* (青年 *qing year*), *qīng-chūn* (青春 *qing spring*), *qīng-chōng-sù yuè* (青葱岁月 *qing onion years: the teenage years, the adolescent years*), etc., the color term *qīng* (青 *qing*) is thought to refer to green only. The color terms *huáng* (黄 *yellow*) and *qīng* (青 *qing*) form a pair of color contrast to refer to different periods of time. Thus in the color metaphor AGE IS COLOR, the correspondences are changed accordingly:

The color metaphor: AGE IS COLOR

Correspondence: difference periods correspond to different shades of color

A person corresponds to a leaf

Something new or somebody young corresponds to the color *qīng* (青 *qing*)

Something old or somebody old corresponds to the color *huáng* (黄 *yellow*)

Here the metaphor AGE IS COLOR entails two sub-metaphors: YOUTH IS QING and OLDNESS IS HUANG. Colors *huáng* (黄 *yellow*) and *qīng* (青 *qing*) form a pair of color contrast, referring to different periods of time.

(7) a. 以前, 农业社会时期, “青黄不接”是常事, 秋收时期粮食多、收入多, 但在春夏时期则没有……(In the past, in the era of agricultural society, it was common to be in temporary shortage of food. During the harvest season there were more crops and more income while during the spring and summer there was not.) (CCL)

b. 当前, 中西医结合高层次骨干队伍面临着青黄不接的危机, 这个问题应引起我们足够的重视。(At present the shortage crisis of cadres who are expert at the combination of Chinese traditional and Western medicine should deserve our full attention.) (CCL)

(7a) presents the literal meaning of the expression *qīng-huáng-bùjiē* (青黄不接 *qing yellow not connected*): *qīng* (青 *qing*) refers to the period when the crops are not mature or ripe; *huáng* (黄 *yellow*) refers to the period when the crops are already mature enough to yield. Thus, based on such cognition, *qīng* (青 *qing*) is thought to be associated with immaturity while *huáng* (黄 *yellow*) is related with maturity. (7b) shows the metaphorical understanding of *qīng-huáng-bùjiē* (青黄不接 *qing yellow not connected*): there is a shortage of young cadre who can take the place of the old cadre. In practical use, *qīng* (青 *qing*) and *huáng* (黄 *yellow*) show different tendency in word construction. *huáng* (黄 *yellow*), as the opposite to *qīng* (青 *qing*), either appears in the combination with *qīng* (青 *qing*), or occurs in the expressions like ‘*rán-lǎo-zhū-huáng* (人老珠黄 *person old pearl yellow: an old person*)’ and ‘*huáng-lián-pó* (黄脸婆 *yellow face wife*)’. As shown above of the same section, when the color ‘*huáng* (黄 *yellow*)’ stands as the opposite to the color ‘*qīng* (青 *qing*)’, it means old age. Comparatively, *qīng* (青 *qing*) is more productive. More examples are shown in (8) as follows.

(8) a. 唯一的遗憾是我老了, 而且还在变老, 不复返的是宝贵的青春。(The only regret is that I am old, and I am getting old. What was gone is the precious youth.) (CCL)

b. 他说他也感到了温暖, 能从我的身上感受到一股强烈的青春气息, 这种气息仿佛昨日时光中似曾相识的再现, 但是他不敢奢望。(He said he also felt the warmth, and he could feel a strong breath of youth in me, which to him was like reoccurrence of yesterday's familiar images, but he would never dare to have) (CCL)

c. 面对这些情况, 教师应该采取适当的方法进行青春卫生和性知识教育。(In the face of these situations, teachers should take proper measures to conduct adolescence health education and popularize sexual knowledge) (CCL)

d. 添加青年的例子

- e. 我们希望, 此文能对促进企业关注青工学习技术和激发青工钻研技术, 起到有益的借鉴作用。(We hope this article can have some beneficial reference for promoting the enterprises to pay close attention to the young worker's skills learning and intensive study.) (CCL)
- f.这些身处异地的上海知青唯一揪心的, 是自己的子女在读书和就业上所面临的诸多困难。(...The only thing making those displaced educated youths anxious was the numerous difficulties in schooling and employment their offspring were facing.) (CCL)
- g. 如果失败会使你损失惨重, 或者使你烦躁不安, 你就会像一个楞头青一样遇到什么不如意的事情就打电话找律师提起诉讼.....(If failure cost you a heavy loss, or made you restless, you would call the lawyer and file a lawsuit, just as a rookie teenager did when in trouble.) (CCL)

In practical use, *qīng* (青 *qing*) can be an independent unit to combine with lexical items such as *qīng-nián* (青年 *qing* year), *qīng-chūn-qī* (青春期 *qing* spring period), as shown in (8). In (8)a and b, *qīng-chūn* (青春 *qing* spring) literally means that the youth is like the spring often in the color of *qing*. There is a famous Chinese saying that *yī-nián-zhī-jì-zài-yú-chūn* (一年之计在于春 *Spring is the beginning of a year*). Cognitively, *qīng* (青 *qing*), combined with *chūn* (春 *spring*), means the tender years of one's life. In (8c), *qīng-chūn-qī* (青春 *qing* spring) presents the literal meaning *green* spring period, known as the period which starts at the age of 11 or 13. Thus it is not difficult to understand the idiom *qīng-chūn-nián-shào* (青春年少 *qing* spring year little) which stresses the freshness and innocence of youth. The expression *qīng-nián* (青年 *qing* year) literally means the immature age, i.e. the period when everything is still *qing* and *fresh*. It refers to the youth who are at the immature years of life.

What's more, *qīng* (青 *qing*) can be an abbreviation of *qīng-nián* (青年 *qing* year), as in expressions like *qīng-gōng* (青工 *qing* worker) in (8e), *zhī-qīng* (知青 *knowledge qing*) in (8f), *lèng-tóu-qīng* (楞头青 *reckless qing*) in (8g), etc. Then *qīng-gōng* (青工 *qing* worker) refers to the abbreviation of *qīng-nián-gōng-rén* (青年工人 *qing* year worker) and *zhī-qīng* (知青 *knowledge qing*) is an abbreviated form of *zhī-shí-qīng-nián* (知识青年 *educated qing* year). *Zhī-qīng* (知青 *knowledge qing*) is a by-product of a particular historical era in Chinese history, "referring to secondary school graduates who were sent to the countryside for reeducation during the Cultural Revolution (1966-1976)". (Hui Yu 2004: 2093)² In the example of (8g), *lèng-tóu-qīng* (楞头青 *reckless qing*), also called *lèng-tóu-qīng-nián* (楞头青年 *reckless qing* year) vividly describes a young man who is not experienced and sophisticated.

V. CONCLUSION

Comparing metonymical and metaphorical extensions of color to age, it is evident that more basic color terms are involved in Chinese than in English.

In addition, Chinese has opposite colors pairs metonymically or metaphorically for age, which is rarely seen in English. For example, seen from the contrastive color pairs like *qīng* (青) and *huáng* (黄 *yellow*), *lǜ* (绿 *green*) and *huáng* (黄 *yellow*), *huáng* (黄 *yellow*) and *bái* (白 *white*), *qīng* (青 *black*) and *bái* (白 *white*), *hēi* (黑 *black*) and *bái* (白 *white*), etc., the Chinese are more likely to conceptualize age in terms of colors than the English peers.

Metonymies:

BLACK HAIR STANDS FOR YOUTH, WHITE HAIR STANDS FOR OLDNESS
 BLACK HAIR STANDS FOR YOUTH, GREY HAIR STANDS FOR OLDNESS
 YELLOW HAIR STANDS FOR YOUTH, WHITE HAIR STANDS FOR OLDNESS
 YELLOW HAIR STANDS FOR OLDNESS
 YELLOW FLOWER STANDS FOR YOUTH
 RED CLOTHING STANDS FOR YOUTH
 BLACK CLOTHING STANDS FOR YOUTH

Metaphors:

YOUTH IS GREEN, OLDNESS IS YELLOW (PEOPLE ARE PLANTS)
 YOUTH AND INEXPERIENCE IS QING, OLDNESS AND EXPERIENCE IS YELLOW

This is not a total list of color conceptualization in Chinese. For example, both Chinese and English have conceived gray hair as a symbol of old age, green symbolizing youth based on embodied experience. Such common conception manifests that both languages conceive color as a distinctive property of objects, which entails COLOR IS A DISTINCTIVE PROPERTY OF ORGANISMS. Here organisms is a broad term which includes people, plants, animals and things. The only difference lies in the fact that Chinese has more diversified color conceptualization of age in terms of color than English.

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