OPENING TO COLOURS: A BASIC LEXICON IN JAPANESE

Wherever we go, wherever we look, we are immersed in the existence of colours. Colours are a constant to our existence [1] as well as a psychological factor that influences our mood, a way out of day by day routine.

Warm colours (red, yellow and orange) can visually overpower cool colours (blue, green, brown and purple). They appear closer while their cool counterparts visually recede [2].

Colour categories can be associated with colour terms by means of lexicalisation. Colour categories can be associated with more than one word (thereby allowing synonymy) and words can be associated with more than one category (thereby allowing homonymy) [3].

One of the most influential contributions to the colour system research is the monograph by Berlin and Kay (1969). Using naming experiments they elicited the colour categories of subjects and comparing the categories across different languages they noticed a remarkable cross-cultural correspondence. In the process of categorization, over seven million colour shades visible by human eye can be divided generally into eleven basic colour categories represented through prototypical colour terms. This set of eleven seems therefore to be a semantic universal [4].

To Chinese and Japanese people colour also meant order and ranking[5]. In Japanese, the word for colour is *iro* [6]. Ancient Japanese had four basic colour nouns: *shiro* (white), *kuro* (black), *aka* (red), and *ao* (green/blue)[7]. Except the nowadays adjectives for the four basic colour terms: *shiroi* (white), *kuroi* (black), *akai* (red) and *aoi* (blue-green), the other colour terms are formed by adding the lexeme -*iro* 色(colour) [8]:

	Adjective	Noun (+ <i>no</i>)			
white	shiroi 白い	shiro白			
black	kuroi 黒い	kuro 黒			
red	akai 赤い	aka 赤			
blue	aoi 青い	ao 青			
yellow	ki-iro-I 黄色い	ki−iro黄色			
brown	cha-iro-I 茶色い	cha-iro茶色			
purple		murasaki(-iro) 紫色			
green		midori(-iro) 緑色			
gray		hai-iro灰色/nezumi-iro鼠色/gurēグレ-			
orange		daidai-(iro) 橙(色)/orejiオレンジ			
pink		momo-iro桃色/pinkuピンク			

Actually, the nominal categories of the four basic colours are but the stems of the same adjectives: shiro (the stem of the adjective shiroi), kuro (the stem of the adjective kuroi), aka (the stem of the adjective akai), ao (the stem of the adjective aoi). The noun form of the four basic colour terms, followed by the particle no (shiro no, kuro no [9], aka no, ao no) is not very productive; instead it is employed the adjective form. The adjectives for yellow and brown kiiroi and chairoi are made from adjectivized noun-compounds with the word iro: ki-iro and cha-iro. It is believed that those two adjectives appeared in the language

relatively late and that their formation is due to their suitable phonetic shape [10], but the nominal form: *chairo no* and *kiiro no* is more common.

Thereby the adjective form applies to the four basic Japanese colours (*shiroi*, *kuroi*, *akai*, *aoi*), but the nominal form is preferred for the rest of the basic colours. A significant distinction in choosing the nominal or the adjective form of the colour terms is made by genre, since literature prefers colour adjectives, while the mass media discourse employs their nominal counterparts to a greater extent [11].

Every Japanese colour term interact with a number of productive morphemes such as -gakatta (tinged with); -ppoi (-ish) [12].

▶ shiro白 (white)

Meaning: 1. the colour (of snow); 2. blank, unprocessed: shiroi kamiko 白い紙子 (blank sheet of paper); 3. innocence: kittto aitsu wa shiro *lich きっとあいつは白だよ (I'm sure he is innocent); 4. the abbreviation for silver (shirogane)

Synonyms: howaito as in howaito chokorēto $\pi \mathcal{I} \mathcal{I} + \mathcal{I} = \mathcal{I} \mathcal{I} - \mathcal{I}$ (white chocolate)

Shades: aiborī (ivory); enpakushoku 鉛白色 (white lead); nyūhakushoku 乳白色 (milk white) kaihakushoku 灰白色 (greyish white) etc.

Compounds: 1. 1. with Japanese reading: shiromi 白身 (albumen, egg white); 1.2. with Chinese reading: hakujō 白状 (confession); kokuhaku 告白 (confession); hakujin 白人 (*lichés*z); hakuchi 白雉 (idiot); hakuchāmu 白昼夢 (day dream); hakuchō 白鳥 (swan); hakuya 白夜 (white/arctic night); hakketsubyō 白血病 (*lichés*z); meihaku (obvious); 2. colour phrases; 2.1. coordinate colour phrases (translated by "and"): shiro-kuro 白黒 (black and white) as in shiro-kuro shashin 白黒写真 (a black and white picture) or me o shiro-kuro saseru 目を白黒させる (to to look bewildered, to be confused, to blink one's eyes in surprise) or shiro-kuro o tsukeru 白黒をつける (to settle the matter in court); kōhaku 紅白 (red and white; colours for auspicious occasions); kōhaku 黄白(yellow and white; gold and silver; bribery, corruption); 2.3. other colour phrases: 2.3.1. parts of body: shiroi me de miru (to look coldly, to frown upon); 2.3.2. sports: shiro-boshi 白星 (a white dot, a victory mark) as in shiro-boshi o ageru [13] 白星をあげる (to win); 2.3.3. euphemism: shiro-kubi 白首(lit.: a white neck, i.e. a prostitute); shiro-taku 白タク(lit.: a white taxi. i.e. an unlicensed taxi)

Proper names: Shirayuki-hime 白雪姫 (Snow White)

Emphasis: /maQsiro/[14] = masshiro 真っ白 (pure white) as in atama ga masshiro ni naru 頭が真っ白になる (to go blank, to forget everything)

Verbs: shiramu 白む (to grow light); shirakeru 白ける (to become apathetic); shiratsukeru白つける (to be unamused or bored, to be spoiled; to feel ill at ease)

The main meaning of white is that of the colour itself as in *shiromi* (albumen), <code>hakuchō</code> (swan), <code>hakujin</code> (•lichés•z). Being the colour of pure light, phrases like <code>hakuya</code> (arctic night); <code>hakuchāmu</code> (day dream) emphasize this aspect. If something is brought to light, it becomes visible: <code>meihaku</code> (obvious) or the light of truth is shed upon as a proof of innocence: <code>aitsu wa shiro da</code> (he is innocent); <code>hakujō</code> (confession). White has also the meaning of void, blank: <code>shiroi kamiko</code> (blank sheet of paper), showing the lack of interest: <code>shiroi me de miru</code> (to look coldly, to frown upon); <code>shirakeru</code> (to become apathetic); <code>shiratsukeru</code> (to be unamused or bored) or the lack of intelligence: <code>hakuchi</code> (idiot); <code>atama ga masshiro ni naru</code> (one's mind goes blank).

The colour white	light	→ obvious (the light making things standing out) (cleanness) → innocence (the light of truth)
	blank, void (lack)	→ indifference (lack of interest) → stupidity (lack of intelligence)

▶ kuro 黒 (black)

Meaning: 1. the colour (of ink); 2. dark complexion: hifu no kuroi 皮膚の黒い (dark-skinned); 3. dirty: yōfuku ga kuroku natta 洋服が黒くなった (the clothes got dirty); 4. guilty: kare wa kuro dearu 彼は黒である (he is guilty)

Synonyms: burakku as in burakku risuto ブラックリスト (black list)

Shades: ankokushoku 暗黑色 (dark); keshizumi-iro 消炭色 (cinder); shikkoku漆黑 (jet black); sumi-iro 墨色 (India ink) etc.

Compounds: 1. 1. with Japanese reading: kuroji 黒字 (surpluss); 1.2. with Chinese reading: kokushibyō 黒死病 (the black death, the plague); kokujin 黒人 (a ·lichés·); kokuban 黒板 (blackboard); kokuen 黒鉛 (graphite); kokuhyō 黒表 (black list); ankoku 暗黒(darkness); 1.3. with special reading: hokuro 黒子 (black mole, beauty spot, mite); 2. colour phrases: 2.1. coordinate colour phrases (translated by "and"): *kokubyaku* 黒白 (black and white; right and wrong) as in *kokubyaku o akiraka* ni suru黒白を明らかにする (to decide/dispute as to which is right); 2.3. colour phrases: 2.3.1. parts of body: mune ga kuroi 胸が黒い (to be black-hearted); watashi no me no kuroi uchi ni 私の目が黒いうちに (as long as I am alive); 2.3.2. quantity: kuro-yama no yō na hito dakari 黒山のような人だかり (a large crowd of people); 2.3.3. food: kuro-zatō 黒砂糖 (raw/brown sugar); 2.3.4. sports: kuro-boshi 黒星 (the bull's eye; a defeat) as in kuro-boshi o toru 黒星をとる (to be defeated); sports: kuro-obi 黒帯 (black belt); 2.3.5. stage terms: kuro-ko 黒子 (a kabuki stagehand dressed in black to be inconspicuous); kuro maku 黒幕 (a black curtain), but also a wirepuller, a mastermind: kore ni wa dareka kuro maku aru rashii これにだれか黒幕あるらしい (someone is certainly pulling the wires/there must be someone at the bottom of this affair); 2.3.6. obituary: kuro-waku 黒枠 (black borders; an obituary notice) as in kuro-waku no hagaki 黒枠の葉書 (a postcard announcing somebody's death)

Emphasis: /maQkuro/ = makkuro 真っ黒 (pitch black)

Verbs: kuromu 黒む (to become black, to blacken); kurobamu 黒ばむ (to become black, to blacken); kurozumu 黒ずむ (to become black, to blacken), kuromaru 黒まる (to blacken), kuromeru 黒める (to blacken, to make something black)

Black is the darkest colour as in *kokuen* (graphite) and everything comes near it is spoiled or gets dirty, thereby, it bears the stain of guilt: *kare wa kuro dearu* (he is guilty). Moreover, *kuro*, as the symbol of darkness: *ankoku* (darkness), wipes away the shapes - that become inconspicuous as in *kuro-ko* (a *kabuki* stagehand dressed in black). The deletion may also mean total annihilation of life forms, i.e. death: *kokushibyō* (black death, plague); *kuro-waku* (an obituary notice). As the positive meaning of black, it signifies experience: *kuro-obi* (black belt), *kuro-maku* (a mastermind).

The colour black	darkness	(dirtiness) → guilt	
The colour black	(inconspicuous, hidden)	ightarrow death	

▶ aka 赤 (red)

Meaning: 1. the colour of blood: aka shingō 赤信号 (red light, danger signal); akawain 赤ワイン (red wine); sekijūji 赤十字 (Red Cross); 2. a baby: aka-chan赤ちゃん, aka-nbō 赤ん坊; 3. a communist: aka-gun 赤軍 (Red Army)

Synonyms: kurenai 紅 (deep red, crimson), ake 朱 (vermilion, cinnabar), ni 丹 (red, red earth), aka/ake 緋 (scarlet, cardinal); *lic レッド (red)

Shades: aka-sabi-iro 赤錆色(rust); aka-ni赤丹(red clay); suō 蘇芳 (sappanwood); kin-aka 金赤 (bronze red); kāmain カーマイン (carmine); beni-iro 紅色 (rouge); renga-iro 煉瓦色 (brick red); wain *lic ワインレッド (wine red) etc.

Compounds: 1. 1. with Japanese reading: aka-ge 赤毛 (red hair) as in aka-ge no hito 赤毛の人 (a red haired man); aka-ji 赤字 (a deficit); 1.2. with Chinese reading: sekigaisen 赤外線 (infrared rays); sekidō 赤道 (the equator); sekihan 赤飯 (boilded

rice with red beans); sekihin 赤貧 (extreme poverty); sekiri 赤痢 (dysentery); sekimen suru 赤面する (to blush); sekirara 赤裸々 (naked, bare; frank); sekkekkyū 赤血球 (red blood cell); 2. colour phrases: 2.2. complex colour phrases (tints): aka-guroi 赤黒い (dark red); aka-chakeru 赤茶ける (to turn reddish brown); 2.3. other colour phrases: aka no *liché 赤の他人 (a perfect stanger); aka-haji o kaku 赤恥をかく (to be put to shame, to be disgraced in public)

Proper names: Aka-zukin 赤頭巾 (Little Red Ridinghood); Aka no hiroba 赤の広場 *(*The Red Square*)*

Emphasis: makka 真っ赤 (deep red), aka-aka 赤々 (bright red)

Verbs: akameru 赤める (to make red), akarameru 赤らめる (to turn red, redden, blush), akaramu 赤らむ (to become red)

Red is decoded as the colour of blood: sekimen suru (to blush), thereby aka turns out to be the symbol of vitality: akachan (baby) and of life: sekijūji (Red Cross). Aka is also the colour of fire as in sekigaisen (infrared rays), with all its related terms such as excessive heat (incandescence): sekidō (the equator); emotion: akahaji o kaku (to be disgraced in public) or political zeal (communism): aka-gun (Red Army). Furthermore, aka stands for bright, glowing colours that are conspicuous (at a great distance): aka no tannin (a perfect stranger). Red overpowers other colours by standing out and signalling danger: sekihin (extreme poverty), akaji (deficit).

The colour red	fire	 → heat/warmth → brightness, conspicuousness → danger → emotion
	blood	<pre>→ vitality/life → (emotion/the flow of blood)</pre>

► ao 青 (blue/green)

Meaning: 1. the colour of the sky: ao-zora 青空(the blue sky)as in ao-zora kyōshitsu 青空教室(an open-air school); 2. pale: aoi kao 青い顔(a pale face); 3. unripe, green, inexperienced: aoba 青葉(fesh leaves); seinen 青年(youth, young man) Synonyms: ao 青(blue), ao 蒼(blue,pale), ao 碧(blue,green), burū ブルー(blue)

Shades: ai-iro 藍色 (indigo); ruri-iro 瑠璃色 (azure); mizu-iro 水色 (light blue), sora-iro 空色 (sky blue); ターコイスブルー tākoisu burū (turquoise blue); シアン shian (cyan); kon' iro 紺色 (deep blue) etc.

Compounds: 1. 1. with Japanese reading: aoiki toiki 青息吐息 (in great distress); 1.2.. with Chinese reading: seishun 青春 (a youth, the spring of life); seishōnen 青少年 (the younger generation, the youth); seidō 青銅 (bronze); 2. colour phrases: 2.2. complex colour phrases (tints): gunjō-iro 群青色 (ultramarine); ao-guroi 青黒い (deep blue); ao-jiroi青白い (pale, wan); 2.3. other colour phrases: ao-kusai 青臭い (grassy smelling; unskilled; green) as in aokusai iken 青臭い意見 (half-baked opinion); ao-suji 青筋 (blue vein) as in aosuji o tatete okoru 青筋を立てて怒る (to go purple with rage); aonisai 青二才 (a stripling; a raw [green] youth, novice); seiun no kokorozashi o daku青雲の志を抱く (to aspire to greatness, to have a lofty ambition); seiten 晴天 (blue sky, fine weather) or seiten hakujitsu no mi to naru 晴天白日の身となる (to be cleared from the charge against)

Ao had existed for a long time in Japanese, maybe before midori (green); it was primarily used to describe the light phenomenon, and only later did it become the colour term. This could prove the existence of the two parallel systems and principles of categorizations: one expressed through the system of colour terms, and the other expressed through the system of terms for the light phenomenon [15].

As in Japanese, the colour *ao* covers two chromatic categories: blue, which stands for the colour of the sky as in *seiten* (blue sly, fine weather) and green which is connected to vegetations and unripe fruit: *aoba* (fresh leaves). In its figurative meaning, *ao*, as green, represents the youth or an inexperienced person: *ao-kusai* (unskilled, green); *aonisai* (a stripling). *Ao* is also an indicator of paleness (lack of colour) or distress as in *aoiki toiki* (in great distress). Being the colour of the sky, *ao* represents distance, a far away spot: *seiun no kokorozashi o daku* (to have a lofty ambition).

The colour	sky (blue)	→ distance
blue/green	unripe (green)	<pre>→ pale (lack of colour) → inexperienced (lack of experience)</pre>

► kiiro 黄色 (yellow)

Meaning: the colour of gold/money Synonyms: ierō イエロー (yellow)

Shades: karashi-iro芥子色 (mustard); tanpopo-iro 蒲公英色(dandelion coloured);

remon-iroレモン色 (lemon coloured); カナリヤ (canaria) etc.

Compounds: 1.1. with Japanese reading: kimi黄身 (yolk of an egg); 1.2. with Chinese reading: ōgyoku 黄玉 (topaz); ōgon 黄金 (gold, money) as in ōgon jidai (golden age); ōdan 黄疸 (jauntice); ōnetsubyō 黄熟病 (yellow fever); ōshoku jinshu 黄色人種 (yellow race); ōdo 黄土 (loes); kōga 黄河 (The Yellow River); kōdō 黄道 (the elliptic, the zodiac); iō 硫黄 (sulphur); 1.3. with special reading: tasogare 黄昏 (twilight); yomi 黄泉 (Hades); 2. colour phrases: 2.2. complex colour phrases (tints): kuro-midori 黒緑 (blackish green); tankōshoku 淡黄色 (light yellow); ōkashiku 黄褐色 (yellowish brown); 2.3. other colour phrases: kiiroi koe 黄色い声 (a shrill voice)

Verb: kibamu 黄ばむ (to turn yellow, to be tinged yellow)

If we assume that yellow is the colour of money/gold, kiiro may also suggest the existence of a metallic object: kiiroi koe (a shrill voice). Fading flowers become yellow, thereby the presence of the colour implies bareness, drought and sometimes disease as in $\bar{o}dan$ (jauntice); $\bar{o}netsuby\bar{o}$ (yellow fever). Being a bright colour, yellow expresses natural phenomena involving light or luminescence: tasogare (twilight), $k\bar{o}d\bar{o}$ (zodiac)

	→ gold/metal
The colour yellow	(dry, arid) → disease
	→ brightness

▶ midori 緑 (green)

Meaning: green, verture

Synonyms: midori 碧 (green), midori 翠 (green), gurīn グリーン (green)

Shades: ki-midori 黄緑 (yellow-green); moegi-iro 萌黄色(light green); moegi-iro 萌葱色 (light green); aodake-iro 青竹色 (green bamboo); uguisu-iro鶯色(bush warbler); koke-iro 苔色(moss green); nae-iro 苗色(seedling); waka-midori 若緑(fresh green) etc. Compounds: 1. 1. with Japanese reading: ki-midori 黄緑 (yellow-green); 1.2. with Chinese reading: ryokuka suru 緑化する (to plant trees); ryokuju 緑樹 (a green-leafed tree); ryokucha 緑茶 (green tea); ryokunaishō 緑内障 (glaucoma); sekiryokushikimō 赤緑色盲 (daltonism); 2. colour phrases: 2.3. other colour phrases: midori no hi 緑の日 (greenery day); midori no kurokami 緑の黒髪 (raven black hair)

▶ chairo 茶色 (brown)

Meaning: the colour of tea

Synonyms: kasshoku 褐色 (brown); kuri-iro/risshoku 栗色 (brown)

Shades: koge-chairo こげ茶色 (dark brown); usu-chairo 薄茶色 (light brown); akachairo 赤茶色 (reddish brown), chakasshoku 茶褐色(dark brown); tankasshoku 淡褐色 (light brown), kitsuneiro 狐色 (golden brown) etc.

▶ haiiro 灰色 (grey)

Meaning: Hai-iro and nezumi-iro are made by metaphorical transfer: the morpheme hai (ash) and the morpheme nezumi (mouse/rat), i.e. the colour of the ash or the colour of the rat. Hai-iro represents gloom, mediocrity and dullness.

Synonyms: gurē グレー (grey), nezumi-iro 鼠色 (grey) Shades: haiseishoku 灰青色 (greyish blue); kaihaku 灰白 (grey, griseous); kairyokushoku 灰緑色 (greenish grey); haiseishoku 灰青色 (grayish blue); kairyokushoku 灰緑色 (greenish grey); kaihaku 灰白 (grey, griseous); kusunda haiiro くすんだ灰色 (dingy grey) etc.

Compounds: 1.1. with Japanese reading: hairo-guma 灰色熊 (a grizzly); 2. colour phrases: haiiro no jisei 灰色の人生 (a grey life); haiiro no giin 灰色の議員 (a Dietman in between; a wobbler)

▶ pinku ピンク/momo-iro 桃色 (pink)

Meaning: The word momo in momo-iro [16] means peach, but pinku is more common. Synonyms: momo-iro 桃色 (rose, pink); tankōshoku 淡紅色 (pink)

Shades: shokingu pinku ショキングピンク (hot pink); ichigo-iro苺色 (strawberry); ōrudo rōzu オールドローズ (old rose); sāmon pinku サーモンピンク (salmon pink); sakura-iro 桜色 (cherry blossoms); bara-iro薔薇色 (rose); botan-iro 牡丹色 (peony)

Colour phrases: pinku eiga ピンク映画 (a risqué/an off-colour movie)

► murasaki 紫 (purple)

Synonyms: *pāpuru* パープル (purple)

Shades: shikon 紫紺 (bluish-purple); ao-murasaki 青紫 (indigo), aka-murasaki 赤紫 (purplish red, murex, claret), fuji murasaki 藤紫 (pale purple); waka murasaki 若紫 (light purple); fuji-iro 藤色 (lavender) etc.

Compounds: 1. 1. with Japanese reading: murasaki zuishō 紫水晶 (amethyst); 1.2. with Chinese reading: shigaisen 紫外線 (ultraviolet rays); 1.3. with special reading: ajisai 紫陽花 (hydrangea)

▶ orenji オレンジ /daidai-iro 橙色

Meaning: Orange is more used than daidai [17]-iro.

Synonyms: daidai-iro 橙色 (orange)

Shades: kaki-iro 柿色 (persimmon-coloured); mikan-iro 蜜柑色 (mandarin orange), ninjin-iro 人参色 (carrot-coloured); yamabuki-iro 山吹色 (orange-yellow) etc.

The morphemes shiro (white), kuro (black), aka (red) and ao (blue/green) are marked with the specific relation to light and lighting, especially to the light characteristic for parts of day: shiro is a feature of a morning sky, frost, reflection of light on snow, that makes positive connotation of clearness and innocence of the new born, and negative of the rawness and unsophisticated. Aka which is etymologically closest to bright, light and glowing, also belongs to the bright part of a day, that is to the brightest - noon of the summer day when all colours stand out and glitter. This is, at the same time, the colour of the sun, not only according to the hue, but to the intensity of light. This makes its positive connotations of sincerity and clearness, and negative as of conspicuousness. Ao stands for shades and evening. It is associated with the part of a day when the greenery becomes of gloomy colour shading more and more, and the paleness of the moonlight, which, with its darkness and paleness, makes negative

connotations. It is also the colour of the depths, of the sky and sea, that although sometimes dark, can be of a rather pleasant colour and lighting, which makes its positive connotations. And kuro is the colour of the pitch night, and therefore stands for total absence of light that hides everything - that is its negative connotation; and, on the other hand, that darkness does not make the colour less intensive, it can rather add to it some quality which makes its positive connotations [18]. This relationship toward the quantity and type of light is influencing figurative meanings and emotional attitudes in the following way: bright and clear (shiro, aka) are good and innocent, and dark; and unclear (kuro, ao) are bad, wrong and suspicious. It is true vice versa as well: what is too clear or overwhelmingly obvious (aka, shiro) is also considered as negative, and what by its 'darkness' acquired the quality of being of desirable intensity (ao, kuro) is evaluated as positive [19]. According to those etymological theories which partly match the Berlin and Kay's research (1969), the terms which appeared first were the terms for white and black, which cover the whole spectral and nonspectral space of the colour and light cognition, dividing it into warm and cold, light and dark poles. The third term is the term for red, emphasizing the phenomenon of colour i.e. glowing. That is the case with the Japanese language as well. The fourth term that evolves in language is the term for the green or yellow colour, and in the Japanese language that is the term ao which refers to both green and blue. However, the etymology of the terms shows that the term ao primarily referred to the semantic and cognitive space between shiro (white) and kuro (black) i.e. between light and dark, and only later did it become the opposite side of the term aka, name for the bright, red colour [20] . The particularity of the Japanese language is that the system of terms for chromatic colours developed separately from the original system of polarization of light and dark, and warm and cold. The yellow and brown colour can be considered as new poles that developed from the sides of reddish and bluish colours [21].

Talking about the ability to develop figurative meanings, except for the morphemes shiro, kuro, aka, ao other terms are considerably limited. The morphemes midori (green), murasaki (purple), chairo (brown) etc. can usually have only one figurative meaning that is generally associated with a certain cultural phenomenon: the morpheme midori is associated with the greenery, and with the positive attitude toward its intensive, almost black colour; the morpheme murasaki is associated with elite that through the centuries wore the purple clothes or the ornaments of that colour; the morpheme cha is associated with the tea, extremely important beverage in the Japanese culture and civilization [22].

Japanese lexicon consists of two sets of mutual exclusive terms, one of native origin, the other borrowed from English [23]. Several English loanword colour terms are more salient then their native Japanese counterparts [24]. Instead of momo-iro (lit. peach coloured), daidai-iro (lit. orange coloured) and nezumi-iro (lit. mouse coloured) or hai-iro (lit. ash coloured), Japanese prefer to use the English loanwords pinku, orenji, gurē. English loanword colour terms may be in the process of replacing a number of native Japanese colour terms in the reverse order of the Kay and Berlin's evolutionary sequence. For instance, cha-iro could be the next term replaced by buraun [25].

In addition to these basic colour terms, we can encounter several linguistic phenomena such as: reduplication, emphasis and colour verbs. Reduplication can occur only to the four basic Japanese colours, but emphasis is extended to *chairo/kiiro* (that can also be used as adjectives). Moreover, there are few verbs

corresponding to the four basic colour terms in Japanese, including the verb which refers to the term for purple (murasaki).

Noun	adj.	Redupli- cation	Emphasis/m aQ-/	verb			
				-mu	-ramu	-zumu	-bamu
shiro	shiroi	shiro-jiro [+ voicing]	masshiro	shiro -mu	_	shiro- zumu	shiro- bamu
kuro	kuroi	kuro-guro [+voicing]	makkuro	kuro- mu	-	kuro- zumu	kuro- bamu
aka	akai	aka-aka	makka	aka- mu	aka- ramu	-	aka- bamu
ao	aoi	ao-ao	massao	ao- mu	-	ao-zumu	ao- bamu
kiiro	(kiiroi)	-	makkiiro	_	-	-	ki- bamu
chairo	(chairoi)	-	matchairo	_	-	-	-
murasaki	-	-		_	-	-	murasaki- bamu
midori	_	-		-	-	_	-
haiiro	-	-		-	_	_	-
daidai	_	_		-	_	_	_

It's also worth noting that the phrase "complete range of colours" is meaningless unless precisely defined. Colour identification is partly physiological and partly cultural/linguistic (individual colours are given specific terms that apply to a "focus" point on the spectrum and may be applied to a narrow range of the spectrum). However these imprecise ranges may omit whole areas of the spectrum which can only be described vaguely as "greeny-yellow" or qualified as "darkish blue-green." Michael Minnich suggests: "Colour system is not simply cultural and it's not simply observational. It seems to have some relationship to language itself, something like grammatical gender or case marking" [26].

NOTES

[1] For example, Robin Lakoff noticed that in this society women spend much more of their time on colour-related activities such as choosing clothes than men do (see Lakoff, Robin (1975). Language and Woman's Place. New York: Harper Colophon)

In contrast, cool colours appear smaller and farther (the accidents involving black cars outnumber the accidents involving warm colour cars; that is why most of the taxis are painted in yellow or black go pieces are made bigger than white go pieces). In the darkness people can difficultly make out brown, black, blue and purple, but they can see white, yellow and orange. Babies perceive red in the early stages of their life, and most of their toys are red or made up of red parts. Senior citizens having eye problems cannot distinctly see blue or green (there are a lot of cooking accidents because they could not see the flame of the cooking stove). Looking at warm colours, one can perceive a longer flow of time, while staring at cool colours, they perceive the same amount of time as shorter. Black objects appear to be 1.87 times heavier than a white object, although they weigh the same (cf. http://ja.wikipedia.org/wiki/%E8%89%B2).

- [3] Belpaeme, Tony; Bleys, Joris (2005). *Colourful language and colour categories,* In: "Proceedings of the Second International Symposium on the Emergence and Evolution ofLinguisticCommunication" (EELC' 05).
 - (http://arti.vub.ac.be/%7Ejorisb/pubs/05%20eelc.pdf)
- The distributional restrictions of colour terms are: 1. all languages contain term of white and black; 2. if a language contains three terms, then it contains a term for red; 3. if a language contains four terms then it contains a term either for green or for yellow (but not both); 4. if a language contains five terms, then it contains terms for both green and yellow; 5. if a language contains six terms, it contains a term for blue; 6. if a language contains seven terms, it contains a term for brown; 7. if a language contains eight or more terms, then it contains a term for purple, pink, orange, grey or some combination of these (cf. Berlin, Brent; Kay, Paul (1969). Basic Colour Terms: Their Universality and Evolution. Berkeley: University of California Press, reedited in 1991, Center for the Study of Language and Inf., pp. 2-3)
- [5] In 603 kan' I (court ranks according to headgear colours) was established. The ranks in the twelve level cap and rank system consisted of the greater and the lesser of each of the six Confucian virtues: virtue (徳 toku), benevolence (仁 jin), propriety (礼 rei), sincerity (信 shin), justice (義 gi) and knowledge (智 chi): first and second rank (of toku) were represented by purple; third and forth rank (of jin) were represented by blue; fifth and sixth rank (of rei) were rendered by red; yellow stood for the seventh and eighth for the rank of shin; white was the colour for the ninth and tenth rank of gi and finally black, represented the eleventh and the twelfth rank of chi. (cf. Mizutani, Y. [no year]. Shaikai-ryō shiryōshū 6-nen-sei, Tokyo: Bunkeidō, p.22)
- [6] Iro can also mean lust, sexual desire, passion
- [7] Their ancient adjective forms were shiroshi, kuroshi, akashi, and aoshi.
- [8] Optional in the case of murasaki (purple), midori (green), daidai (orange)
- [9] The nominal form for the four basic colour terms, especially kuro, is sometimes used when the modified noun does not belong directly to the natural world, but to the manufactured goods and clothing: *kuroi kami no ke (black hair) vs. kuro no naga-gutsu (black boots) (cf. 藤村逸子. 色彩名詞と色彩形容詞の対立 -新聞と文学のコーパスからわかること-p. 11, graph 4; p. 15, http://www.gsid.nagoya-u.ac.jp/fujimura/gyoseki/iro.pdf (24.05.2009)
- Trickovic, Divna (2004). Basic colour categories in the Japanese language in reference to their adjectival form, p. 8,
- http://209.85.129.132/search?q=cache:NbQ8TlnwTsIJ:www.uab.ro/reviste_recunoscute/philologic_a/philologica_2006_tom2/44.doc+Trickovic+Divna, +(2004), +Basic+Colour+categories+in+the+J_apanese+language+in+reference+to+their+adjectival+form&cd=1&hl=ro&ct=clnk&gl=ro&client=firefox-a
- [11] 藤村逸子, Art. Cit., p. 15, graph 5
- [12] Stanlaw, James (2005). *Japanese-English Language and Culture Contact*, Washington: University of Washington Press, p. 221
- [13] It is a phrase usually used in *sumo* competitions
- [14] /maQsiro/, /Q/ is the double consonant phoneme, known as sokuon.
- [15] Trickovic, Divna, Art. Cit., p. 7
- [16] It also means amorous affair
- Daidai is a Japanese bitter orange
- Trickovic, Divna, Art. Cit., p. 7
- [19] Ibidem, p. 6
- [20] 飛田良文; 佐藤武義 (2003). *現代日本語講座、第4巻、語彙*. 東京: 明治書院, . Pp. 15-18, apud. Trickovic, Divna, Art. Cit., p. 8
- Ibidem, p. 9
- [22] Ibidem, p. 5
- [23] Stanlaw, James, Op. cit., p. 218
- [24] Ibidem, p. 212
- ^[25] Ibidem, p. 232
- [26] http://www.putlearningfirst.com/language/research/colour_words.html

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Links :

http://ja.wikipedia.org/wiki/%E8%89%B2

http://www.putlearningfirst.com/language/research/colour_words.html

ABSTRACT

Colours are a constant to our existence. Berlin and Kay (1969) established a set of eleven colours as semantic universals. Except the nowadays adjectives for the four basic colour terms: shiroi (white), kuroi (black), akai (red) and aoi (blue-green), the other colour terms are nouns formed by adding the lexeme -iro: chairo (brown), kiiro (yellow), murasaki(-iro) (purple), midori(-iro) (green), hai-iro (grey), orenji (orange), pinku (pink). In Japanese, the colour ao covers two chromatic categories blue as well as green. The morphemes shiro (white), kuro (black), aka (red) and ao (blue/green) are marked with the specific relation to the light characteristics for parts of day. Aka emphasized the phenomenon of colour i.e. glowing and a primarily referred to the space between light and darkness. Talking about the ability to develop figurative meanings, except for the morphemes shiro, kuro, aka, ao, other terms are considerably limited. Several English loanword colour terms (pinku, gurē, orenji) are more salient then their native Japanese counterparts. In addition, we can encounter several linguistic phenomena such as: reduplication, emphasis and colour verbs, especially applied to the four basic colour terms.