

Middle East Research Journal of Linguistics and Literature ISSN 2789-7753 (Print) | ISSN 2958-2032 (Online)

ISSN 2789-7753 (Print) | ISSN 2958-2032 (On Frequency: Bi-Monthly

DOI: 10.36348/merjll.2024.v04i01.001



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Color-Based Metaphors in English and the Process of Metaphorization in Technical Texts: A Review Study

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Abstract: The study of the complicated processes taking place in technical texts could change not only the mechanism of a contemporary term formation, but also widen their meanings and extend spheres of their application in both monolingual and multilingual communicative settings. Accordingly, this review study aims at the elaboration of the use and classification of the color-based metaphorical terms in English as well as at the analysis of the tendency for metaphorization of technical texts in English. It further aims at explaining the tendencies in the development of technical texts that have caused changes in the development of technical vocabulary initiating the ongoing process of metaphorization and an extension of meaning of the existing and newly created terms. To this end, the complicated mechanisms underlying the emerging concepts of enduring metaphorization are explained and the processes of meaning formation, extension or compression are illustrated. In the end, as there are potential threats in the pattern of the color-based term creation in technical terms in English and their possible translation into other languages, some relevant caveats are provided.

Keywords: Color-based metaphorical terms; metaphorization; neologisms; technical texts; technical terms.

How to Cite this Paper: Samad Mirza Suzani (2024). Color-Based Metaphors in English and the Process of Metaphorization in Technical Texts: A Review Study. *Middle East Res J Linguist Lit, 4*(1): 1-8.

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Review Paper

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Article History: | Submit: 22.12.2023 | | Accepted: 23.01.2024 | | Published: 25.01.2024 |

INTRODUCTION

In the past, technical texts were traditionally considered to be a relatively static area regulated by a set of norms and conventions. Based on Nord (1997), technical texts were often associated with a precise, specific, and stylistically neutral mode of expression aimed at delivering accurate and unambiguous information to the reader, an extensive usage of terminology, absence of expressive vocabulary, and absence of cultural references. Moreover, as Wright & Budin (2001) maintain traditional characteristics of an ideal term implied that it was monosemic within a particular field, did not have synonyms, was transparent and free from connotations, and its meaning was unambiguous and not dependent on the context. On the contrary, in the present world, the nature of the contemporary technical texts seems to be changing drastically and as Mirza Suzani (2009) argues, the boundaries between styles and genres are rapidly becoming blurred and the traditional conventions of technical text production are no more strictly observed. In other words, contemporary terms, often being

polysemic, metaphoric, and context-dependent, do not meet the traditional requirements put forward by conventional terminology schools. Likewise, contemporary technical texts, being less formal and more expressive, are characterized by the tendency for internationalization of vocabulary, the borrowing of non-equivalent lexis, compounding, and the extension of meaning of terms by means of metaphorization.

In fact, presently metaphoric meaning extension can be considered as a characteristic of technical vocabulary in all discourse domains. In addition, the complicated processes in the creation, development and application of technical terms are illustrated considering the color-based lexical items. Besides, it appears that color-based lexical items comprise different aspects of life, including the ideas shared by the individuals of a particular group of people, traditions, customs, beliefs and values (e.g. white and blue collars, red tape, red herring, yellow journalism, blue chip, black list, gray matter, etc.). in this vein, the study of the complicated processes taking place in technical texts could change not only the mechanism of a contemporary term formation,

but also the traditional perception of color iconyms, widening their meanings and extending spheres of their application in both monolingual and multilingual (English-Persian) communicative settings. Thus, the similarities and differences of direct and connotative meanings of the color-based terms across the languages (translating /comparing/contrasting) are considered significant in the present article.

Background

For a very long time, color-based metaphorical terms have been extensively used in all languages in the world including English and Persian. On the one hand, color-based terms are loaded with attributive and connotative meanings, many of which are realized in conventional linguistic expressions such as "to feel blue", "to be in the pink", and "to see red" in English and 'češm sefid' and 'češme zagh' in Persian; on the other hand, the use of such phrases on an everyday basis reinforces the currency of the connotative meanings which they assume in particular cultural and linguistic settings, and the phrases themselves are often cited as evidence of the existence of colors' connotative meanings. But an important question is how the colorbased terms in conventional linguistic expressions relate to the multitude of symbolic meanings that colors are said to represent.

The current study examines the use of colorword metaphors in English and Persian by paying particular attention to the ways in which color words take on connotative meanings, how the meanings are fixed linguistically, and similarities and/or differences that may exist across the English and Persian languages in this regard.

According to Mirza Suzani (2014, p.173), colors can possess 'different connotations in different cultures'. Besides, as they are the indicators of people's perceptions of the world, they can be easily associated with certain emotions they stir in people (e.g., blacksorrow and condolence, red-emergency and passion, green- freshness and safety, white-peace and purity, etc.). Some of these conceptual metaphors originate in our experiences with nature, while others are based on arbitrary associations. Thus, we may assume that one can have a look at a spectrum of color metaphors! On the other hand, 'in various cultures colors can cause different reactions, as some cultures can lack some shades of colors or even particular colors' (Nitina, Iljinska, Platonova 2008, pp.182-186). As a result, in order to standardize and free them of cultural bounds, the socalled eleven basic colors, chosen by Berlin and Kay (1969, p.3) are most often applied for the creation of the 'balts'-white, 'melns'-black, 'sarkans'-red, 'zaļš'-green, 'dzeltens'-yellow, 'zils'-blue, 'brūns'brown, 'pelēks'-gray, 'purpurs'-purple, 'rozā' pink and 'oranžs'-orange.

With reference to the application and usage, color names are extensively used in all languages, as they can illustrate the nuances of the particular meanings in different languages. For example, in British and Australian a *blue-eyed* boy is a person who is liked and admired by someone in authority, as in "He was very much the blue-eyed boy in the office". In Persian, 'aziz dordune/nure češmi' and in Arabic the equivalent 'quratal-ain' are used for the same concept. Alternatively, a fair-haired boy in American culture is used to connote a person who is the apple of someone's eyes.

Another point to notice is that while in some languages there may be many basic colors, in other languages the concept of a basic color could be designated by employing the compound form (e.g. 'lajavardi' in Persian and light blue in English). On the other hand, based on the investigations conducted by scholars such as Berlin and Kay (1969), Witkowski and Brown (1977), Kay and McDaniel (1978), Wierzbicka (1990) and Dedrick (1998), the study of color terms in such disciplines as anthropology, linguistics, and psycholinguistics can have a great impact on the research and analysis of the contemporary phenomenon of color-based metaphorization of technical terms.

Color-Based Metaphorical Terms in English

In every language, there are a number of colorbased terms and metaphors among which it is possible to distinguish the terms which are specific to special technical domains. In the same vein, in English many of color-based metaphors in different technical contexts are known to be independent of context, as in the course of time they become the stock metaphors. For instance, in English if we say something is *rosy*, this means that the situation is very good. Also, if something is unexpected, it seems to fall from the blue sky, and so we have an expression that something we were not expecting is out of the blue. Likewise, a greenback is another word meaning American money, due to its color, and one who works in a business promoting environmental concerns can be called a green collar worker. In this respect, we can consider further examples of the use of color-based metaphorical terms in English together with their origins as follows:

Example 1: When the economy is in recession, many state governments get into *red ink*. They must begin to make budget cuts.

Origin

Pens with red ink were formerly used to write down the amount of money that was lost in a business. When a business is losing more money than it is earning, we say that it is in *red ink*.

Example 2: Many Americans are frustrated by all the *red tape* they must endure every time they deal with the government for taxes, licenses, passports, etc.

Origin

Many years ago, a kind of red-colored tape was used to hold together official government documents. Nowadays, the phrase *red tape* indicates the problems and delays one encounters when trying to get something done in a bureaucracy.

Example 3: In part, the banking crisis was caused by banks giving loans to people who should have been *redlined* since they could not afford to pay the high mortgages.

Origin

The term *redline* originally meant to use red ink to highlight a problem. In some cases, the names of people who applied for a loan from a bank but did not qualify were crossed off a list with *red line*. Thus, to *redline* someone means to disqualify him or her from doing something.

Example 4: After the American Revolution in the 1770s and 1780s, citizens did not want any more royal British *bluebloods* controlling their government; they wanted to elect their own presidents.

Origin

Many years ago in Spain, the term translated as *blueblood* meant someone who was very rich or from a high social class. This term may have started from the idea that blood looks blue in people with very fair skin especially when compared to people with darker skin.

Example 5: Reagan was no *greenhorn* when it came to making public speeches. He was a famous Hollywood actor before becoming the governor of California and the president of the US.

Origin

A person who is inexperienced can also be called a greenhorn, most likely derived from animals with new horns when they are young.

Example 6: The world citizens should be careful about *yellow journalism* when it comes to learning the truth about the news. They should only read newspapers that tell the real truth about events.

Origin

In the 1890's, a New York newspaper had a comic strip character who always wore yellow clothes. The *Yellow Kid*, as he was known, was so popular that other newspapers created their own *yellow* characters to get more people to buy their newspapers. This competition became known as *yellow journalism*, later meaning the type of reporting relying on headlines, exaggerations and sensational stories to sell newspapers instead of trying to find all the facts.

Example 7: Good politicians should be careful not to tell any *off-color* stories since many people will be offended.

Origin: In popular terms, a story is considered *off color* if it is not accepted by normal society, usually because it has some sexual content.

In addition to color-based terms and metaphors, a special group of color-based terms in English are presented by the abbreviations. These abbreviations are mostly typical in the technical fields of information technologies (IT) and power engineering (PE).

Some examples of such abbreviations in English are RAG (*Red-Amber-Green*), RGB (*Red-Green-Blue*) and AW light (*Amber-White* Light).

Classification of Color-Based Metaphorical Terms in English

In general, in doing research on the color-based metaphorical terms and expressions in English, the following classification can be considered:

- 1. Metaphors based on particular allusions (e.g. ivory tower, blood rain, chocolate mousse, clear blue water, once in a blue moon, etc.);
- 2. Metaphors named after minerals (e.g. gemstones) and metals which in the majority of cases are allusive (e.g. amber warning light (aviation), amber light (automobiles), amber display (IT), alabaster cement, alabaster glass, pearl filler, pearl test, opal diffuser, opal lamp, etc.);
- 3. Historically-bound metaphors (e.g. blue chip, blue ribbon, black swan, red ink, black ink, silver certificate, pink sheets, pink slip, red tape, blue laws, blue print, red candlestick, black candlestick, red letter day, etc.);
- 4. Metaphors based on literary works such as fairy tale personages and cultural heritage (e.g. *black knight*, *white knight*, *gold bug*, *purple crocodile*, etc.);
- 5. Metaphors created by analogy (e.g. black/gray swan, white/black/gray knight, blue/white/pink/green collar, etc.);
- 6. Metaphors based on comparison (e.g. *pearl* white, eggshell white, etc.);
- 7. Metaphors based on the phenomena typical of the distant unrelated domains of knowledge (synesthesia, e.g. *red pain*, *slow black horror*, etc.);
- 8. Metaphors named after plants (e.g. *orange* forces, orange heat, orange dwarf, lemon heat, lemon spot, carrot equity, plum book, peach states, peachblow glass, etc.);
- 9. Metaphors named after the representatives of fauna (e.g. *dove-gray*, *mouse-gray*, *canary-yellow*, etc.);
- 10. Metaphors named after liquids, food and spices (e.g. *cream-laid paper*, *honey wagon*, *salmon gum*, etc.);
- 11. Metaphors containing elements of classical languages (e.g. *Flame tetra*, *Flavobacteria*, *Cerulean*, etc.);

- 12. Metaphors named after certain geographical locations (e.g. *china clay*, *Verona marble*, *Venetian red*, *red chip* (*stock registered in PRC*), *Mars orange*, etc.);
- 13. Metaphor named after a natural phenomenon (e.g. *sun belt, blue-sky stock*, etc.);
- 14. Metaphors concerned with terms of foreign origin (e.g. *chernozem*, *Khaki*, etc.);

Within the framework mentioned above, in the present article, we shall focus on the metaphorical term categories from allusions, analogy and foreign origins.

Metaphorical Terms Based on Allusions

Up to the present, the notion of allusion has been actively discussed by many prominent linguists and scholars (e.g. Grice 1975; Hebel 1991; Lennon 2004). Allusion is '... a passing reference, without explicit identification, to a literary or historical person, place, or event, or to another literary work or passage...' (Abrams & Harpham 2009, p.11).

The motivation for applying allusion is hidden in its ability to create a desired mental image for the readership of the text, establishing clear relations between the denotative (general) meaning of the lexical item and a concept in the scientific discipline it should denote. However, allusion '... allows the writer to coin expressions which can only be fully understood against the background of the target of the allusion...' (Lennon 2004, p.238). This is particularly important for the

allusions applied for the needs of communication for special purposes, and hence, technical vocabulary contains a variety of terms created on the basis of this pattern.

An important point to observe about allusion is that allusion as a term formation pattern is justified and successful if the readers can recognize the implicature and, thus, can easily make out the special meaning that is being expressed with the help of general knowledge. Allusion, as a marker of implicature, therefore, '... functions within the intertextual or inter-contextual domain as an additional contribution to the semantic value of the alluding unit in the text, enabling the writer to mean more or other than he or she says...' (Lennonn 2004, p.239).

What's more, the nature and relevance of the allusion are not often directly explained by the author of the text, as he or she relies on the readers' understanding and awareness of what is expressed. This stylistic technique is an economical means of evoking certain associations and creating a particular mental image that the source and target audience are supposed to be familiar with. Therefore, to serve these needs, allusions may assume several forms, one of them being the form of metaphorical references (Cuddon 1991, p.29). The following examples of the metaphorical terms in Table 1 coined on the basis of allusion (hidden/obvious similarity of one or many components) are considered to illustrate this phenomenon.

Table 1: Some Metaphorical Terms Based on Allusive Meanings

Metaphorical Term	Meaning		
Ivory tower	A state of sheltered and unworldly intellectual isolation, virginity		
Chocolate mousse	A viscous, stable water-in-oil emulsion, oil-slick		
Clear blue water	The ideological distance between political parties		
Mother-of-pearl cloud	A luminous iridescent cloud at a high altitude that may be seen when the sun is a few		
	degrees below the horizon		
Blood rain	Colored dust rain, dust fall		
Once in a blue moon	Very rarely, unlikely		

With reference to the metaphorical terms in Table 1, it is noteworthy that the term *blood rain* was mentioned by Homer in the *Iliad*, '...but he shed *blood rain* down upon the ground...' (the *Iliad* in the translation of Ian Johnston, 2007, p.355) and then very frequently used by other ancient philosophers and writers (e.g. Plutarch, Livy, Pliny). This term was also employed by Geoffrey of Monmouth in the 12th century, who popularized the legends of King Arthur, as well as by William of Newburgh (the contemporary chronicler of Richard the Lion-heart).

The term *ivory tower*, on the other hand, was first mentioned in the Bible and it has been used allusively to denote virginity. Nowadays, its connotative meaning is connected with the notion of a place of unworldly isolation. This is considered to be an allusion to Henri-Louis Bergson's *Laughter* (1911) translated by

Fred Rothwell and Cloudesley Shovell Henry Brereton, who stated that '...each member [of society] must be ever attentive to his social surroundings-he must avoid shutting himself up in his own peculiar character as a philosopher in his ivory tower...' (ibid., p.135).

It will be interesting to notice that the term *clear blue water* in English originates from sports (competitive rowing) and refers to an obvious gap between the leader and his followers. Nowadays it is used allusively to denote the discernable distance between the ideologies of two political parties. This term lacks the equivalent in the Persian language and its meaning has to be expressed in the form of explanation.

The term *chocolate mousse* denotes an emulsion, which is formed when two different liquids combine, with one ending up suspended in the other. In

fact, it has gained its name because of its appearance and visual similarity with the French traditional dessert with the same name.

The metaphorical terms *ivory tower*, *chocolate mousse* and *blood rain* seem to have no direct equivalents in Persian, and hence the translators mostly use the literal approach, choosing the appropriate stylistic devices and linguistic means, in order to express the exact meaning of these metaphorical terms.

The *blue moon* was originally something that was considered not only rare but impossible. The two notions, 'a blue moon' and 'the moon is made of green cheese', were synonyms for absurdity and irrationality, like 'pigs might fly'.

The *blue moon* expression with the 'impossibility' meaning is old and dates back to mediaeval England; for example, a work by William Barlow, the Bishop of Chichester, the *Treatyse of the Buryall of the Masse*, 1528, included a sarcastic reference to a blue moon:

Yf they saye the mone is belewe,

We must beleve that it is true [sic].

In the following year, John Frith's essay *A pistle to the christen reader*, 1529, included:

"They wold make men beleue...that ye mone is made of grene chese"[sic].

For both 'a blue moon' and 'the moon of green cheese' in Persian we could use the equivalent 'vaqte gole nei', to connote the impossibility and unlikelihood of a phenomenon.

In many languages, terms which contain the names of the gemstones, are most often based on the allusions to the particular minerals. In such contexts, the technical vocabulary in the source language may contain a variety of terms, which can be created in the target language following processes such as transportation, omission, replacement, explanation, and coining novel terms. Thus, the term turqoise in English is culturally not the same as just 'Firuze' in Persian. As we know, the substance has been known by many names, but the word turquoise, which dates to the 16th century, is derived from an Old French word for "Turkish", because the mineral was first taken to Europe from Turkey, from the mines in historical Khorasan Province of Iran. Besides, in the ancient Persian kingdom, the sky-blue gemstones were earlier worn round the neck or wrist as protection against unnatural death.

We have to remember that the usage of expressive means and cultural references in technical texts often determine the context-dependent character of some terms, and this point should be regarded as important while we intend to translate technical texts from English to Persian. Here, relations between meaning and context are actually of particular

importance as they represent an interactive process that enables cognition and productive communication.

Metaphorical Terms Created by Analogy

It seems safe to claim that the application of analogy as a pattern for new words creation has had a long tradition in language and linguistics. According to Edward Sapir new words '... are being constantly created on the analogy of old ones...' (1921, p.37). Otto Jespersen also analyses words and sentences, which are '...made after the same pattern...' (1924, p.19).

Every year, a variety of terms and expressions are created by analogy with other existing terms. In fact, analogy as a pattern for new term formation is applied for the sake of clarity and precision and because it can facilitate the introduction, understanding and application of the novel terms in both monolingual and multilingual communicative settings.

In the same vein, color-based technical terms are frequently created by analogy and are applied to designate the same phenomenon, which, however, might be of different impact, degree, scale and/or role in the same communicative setting. For example, the term *gray swan* has been created to denote the same phenomenon as the term *black swan* denotes (a phenomenon that occurs even though it had been thought to be *impossible*), but of a different degree, i.e. gray swan designates an event that can be anticipated to a certain extent, but is considered unlikely to occur.

In the above-mentioned example the concept (i.e. an unexpected phenomenon) remains the same, but the level or the degree of unexpectedness has been mitigated and reduced from impossible to unlikely. This transition has been indicated and represented by replacing the strict and powerful *black* with a softer and less confident *gray*.

It is also possible to create terms by analogy based on the visual similarity with and/or among the real physical objects the terms are designed to denote. For example, If a person is looking off-color (Persian-rang paride), this means he or she does not have the usual color of healthy skin. In jewelry, a jewel that is off-color is less valuable because it is not as pure as other examples of that type of gem (Persian-kam ayar). In popular terms, a joke or story is considered off color if it is not accepted by normal society, usually because it has some sexual content (Persian-bi mazze).

In the English language, black sheep is an idiom used to describe an odd or disreputable member of a group, especially within a family. The term stems from the genetic effect in sheep whereby a recessive gene occasionally manifests in the birth of a sheep with black rather than white coloring; these sheep stand out in the flock. Also, the term has typically been given negative implications, implying waywardness, as it derived from

the atypical and unwanted presence of other black individuals in flocks of white sheep.

In psychology, the *black sheep effect* refers to the tendency of group members to judge likeable ingroup members more positively and deviant ingroup member more negatively than comparable outgroup members.

It is interesting to note that the term *black sheep* is also found in other languages such as French, Greek, Turkish, and Spanish. During the Second Spanish Republic a weekly magazine named *El Be Negre*, meaning 'The Black Sheep', was published in Barcelona. The same concept is illustrated in some other languages by the phrase "white crow": for example '*belaya vorona*' in Russian and '*kalag-e sefid*' in Persian.

In astronomy for the classification of stars (size, mass, etc.) various color epithets are used to differentiate among types of dwarfs, e.g. red dwarf-'kutulehaye qermez', black dwarf-'kutulehaye siah', white dwarf-'kutulehaye sefid', orange dwarf-'kutulehaye naranji', 'brown dwarf-'kutulehaye qahveii', yellow dwarf-'kutulehaye zard'.

The same pattern is applied in the field of Information Technologies (IT) to refer to the standard references on PostScript, i.e. red, blue, green and white book.

In medicine, if someone cannot physically see colors is called *colorblind- 'kurrang'*. However, metaphorically, being *colorblind* means that one does not

form opinions or make decisions based on a person's race.

Another point to know about analogy is that if the terms have been created by analogy with the initial term, it can, to some extent, justify the application of the word-for-word translation approach, e.g. white, green, blue collar or red, green, black, blue tide. It can facilitate the application of the terms, make it unambiguous and understandable for experts from various language communities and even promote the standardization and unification of the terminology in the respective field.

Metaphorical Terms of Greek and Latin Origin

The significance of classical languages of Greek and Latin as the primary sources for vocabulary extension and terminology coinage has long been recognized by many scholars (Crystal 1995; Cabre 1999; Veisbergs 2001). In English and in many other European languages,...'the knowledge of Latin and Greek, for example, has in the past been highly influential in the development of special subject designations and remains important today...' (Sager 1997, p.26).

As an example, in the environment-related fields a variety of terms are coined using the color names in Greek and Latin. Also, a large number of the names of the elements of flora and fauna, as well as chemical substances and minerals are frequently coined and used following the same pattern.

In Table 2 some examples of color-based terms of Greek and Latin origin used in the above-mentioned fields are represented.

Table 2: Some Color Terms of Greek and Latin Origin Used in the Environment-related, Flora and Fauna and Chemical Substances Fields

Greek	Latin	Meaning in English	Examples in English
		0 0	
coccino-, erythto-,	purpureo-, rubric-,	reds of various	Rhododendron
rhodo-, eo -	ruf-, rutuli-,	shades (including	Flame tetra
	rossi-, roseo-,	pink)	
	flammeo-	•	
chryso-, cirrho-	aureo-, flavo-,	orange, also	Chrysolophus
	fulvi-	gold	Flavobacteria
xantho-, ochreo-	fusci-, luteo-	yellow	Xanthopuccine
			Luteolin
chloro-	prasini-, viridi-	Green	Chlorophyll
			Viridity
cyano-, iodo-	ceruleo-, violaceo-	Blue	Cyanobacteria
			Cerulean
porphyro-	puniceo-,	purple, violet	Porphyrite
	purpureo-		Purpurin
albus-	albo-, argenti-	white	Albino
melano-	nigri-	Black	Melanin
			Nigritude

It has to be noted that a large number of words used in the modern standard Persian in the above fields of study are borrowings from European languages including English and French. What's more, the majority

of words that became internationalisms were extensively borrowed into national languages from Latin and Greek either directly or through Italian, French and English. It should also be added that nowadays newly created terms derived using Latin and Greek elements come mainly through English. Thus it may be stated that English as such is not the major source language but rather the main relay language for internationalisms

which do not depend on the context and are easy to translate.

Some further examples of frequently used prefixes denoting color in English scientific texts and technical discourse are illustrated in Table 3.

Table 3: Examples of Prefixes Denoting Color in English Scientific and Technical Discourse

Prefix	Meaning	Example	Definition
chromo-	color	Chromocyte	Colored cell
cirrh-	yellow	Cirrhosis	Disease causing yellowing of the liver
erythro-	red	erythropoiesis	Formation of red blood cells
leuko-	white	Leukocyte	White blood cells
lute-	yellow	luteinizing hormone	Hormone causing yellow areas in the ovary
rube-	red	Rubedo	Redness of skin

CONCLUSION

Nowadays, many texts of the scientific and technical discourse are cross-disciplinary, multifunctional, less formal and altogether hybrid, and so the dynamic changes in the nature of scientific and technical texts determine the contemporary processes the scientific and technical language undergo, and call for new approaches to the analysis of technical terms. In the current study, it is explained that the pattern of the colorbased term creation is frequently applied to denote the emerging concepts. Accordingly, language for science and technology is a constantly growing supple and flexible area with an immediate response to a developing situation, i.e. the language of primary term formation. In the same vein, one of the most frequent patterns of term creation is based on knowledge, perception and cognition of colors, due to their widely-used universal character.

The current article aimed to demonstrate the significance of the study on the color-based terms and metaphors in English and Persian as well as various patterns of term creation and metaphorization in English and Persian. It also verified that presently in the application and translation of technical terms one has to rely upon corresponding background knowledge which includes not only linguistic competence but also the knowledge of a special subject field. The user or translator of such technical terms should also possess a good amount of awareness of cultural and social contexts. In other words, he or she needs to have a first-rate understanding of the pragmatic aspects of the contemporary technical text.

Another important point to note is that for the most part the tradition and usage of numerous terms is not just restricted to one specific meaning and field. On the contrary, one of the main apparent tendencies in the contemporary usage of terms is that their meaning is not only determined by the field, but is also highly dependent on the context in which they appear.

Meanwhile, all the readers and recipients of texts including translators and interpreters have to bear

in mind that there are constantly some modern terms, which generally do not meet the requirements set for ideal terms, and hence they could potentially pose an assortment of problems in translation. These problems may be caused by various reasons and therefore call for certain attention.

To avoid the prospective problems in translating the modern technical terms successfully from SL to TL, a translator is recommended to become aware of such potential threats caused by lack of referential equivalence, intradisciplinary polysemy, culture specific allusions embodied in the meaning of a term, and the impossibility to transfer the metaphoric component of meaning of the term into the target language.

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