Extended Semantic Potentials of Body-related Temperature Expressions in English and Arabic: A Comparative Study

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Abstract

This research paper is a cross-language analysis of two semantic topics in Arabic and English, where the researchers examined the expanded semantic capacity arising from mixing temperature terms like 'hot,' 'cold' and 'soft' with such body parts as 'core,' 'mouth,' 'chest,' and 'leg,." This attempt is made to figure out the body-related temperature expressions that exist in English and Arabic and how the generalized textual meanings of such phrases vary in both languages. For several languages like English and Arabic, the "body-based temperature words,' including 'hot head' and 'cold-blooded,' and 'soft mouth' are available. Such combinations are essential in metaphorical studies for two reasons: they represent the meeting point of two investigation fields, and often, such combinations are not common but linguistically viable. Their metaphorical meaning is sharply defined contextually and culturally. In specific semanticized tracks, the four temperature terms "hot," "cold," "soft," and "cool" have static significance. That is, their definition is set and definitive. Yet, such terms may develop complex definitions in other ways, and also new meanings are contextual. The study is especially useful in language and translation research and teaching as it sheds light on a hitherto underexplored area of the Arabic-English language pair.

Keywords: *Body-related temperature expressions, collocation, education, extended semantic potentials, knowledge, metaphor.*

Introduction

Temperature environments are a fantastic lexical range, and their strong saliency and event frequency lead to their semantic versatility. Temperature anomalies are frequent, readily identifiable and essential in the categorization of humans. Words belonging to the semantic field are commonly used, a feature often responsible for changes by semantic extension and the use of other semantic domains (Margara et al., 2014; Thompson & Hopper, 2001). Languages not only display significant discrepancies in terms of temperature (Seah & Yore, 2017; Sutrop, 1998), in the manner that they categorize the spectrum of warmth but in the broader meanings of temperature situations resulting from metaphor manipulation. Temperature words are not restricted to the representation of human feelings and may also be applied to specific tactile means, as in the phrases "hot spices" or "blue light." (Jęczeń, 2022). However, the degree to which such metaphorical extensions represent universal metaphorical trends remains a subject of debate between scholars (Dancygier & Sweetser, 2014). The present study aims to find out which Body-related temperature expressions are/are not possible in English and Arabic. It will identify the semantic similarity of the interpretations (metaphorical meanings) of BRTEs in

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English and Arabic. It also pointed out the differences between the extended semantic descriptions (metaphorical meanings) of BRTES in English and Arabic. Temperature terms have so far figured in different semantic fields. However, there has been little work in this domain. This study was an investigation of the possible combinations of body-related temperature expressions in English and Arabic and along with their various extended senses in both languages. The significance of this study stemmed from its findings that would be of great help to researches in this field.

Research questions

The questions addressed in this research paper are:

1.   Which body-related temperature expressions are/are not possible in English and Arabic?

2.   Is there any similarity between the semantically extended potentials of these expressions in these languages?

3.   If some body–related temperature expressions are language-specific, how do their semantic possibilities differ in both the styles?

Literature Review

The principles of "Hot" and "Cold," "New" and "New" are fundamental to human existence and essential to the environment around us. Not unexpectedly, these terms comprise plentiful language similarities, connecting English to a network of relations with other languages (Pinker, 2007). These relations, though, often apply to research and geography. It is now widely agreed that, apart from the primary referential sense conceptually related to the thermal condition of a physical entity, adjectives like hot, wet, cold, and fresh are often used metaphorically, especially in connection with real human feelings (Classen, 2023). There is a similar example of temperature in which an emotional individual or someone who openly shares his or her emotions is sometimes defined as a "fire" or a "hot-sang" individual or a "hot-heated" person or the opposite extreme is characterized as "cool," "cold-blooded," or "cold-hearted" (Mann & Treagust, 2011). One of the most significant developments in metaphor philosophy over the last 20 years was the realization that metaphor is not only a visual instrument and a conceptual image, but it also plays an essential role over people's thinking and imagination (Johnson & Lakoff, 1980). Since the philosophy of relational metaphor seeks to describe core human thought processes and structures, it can be insightful and helpful in cross-language analytics. Some studies in the last few decades have addressed the possibility of metaphors becoming non-language specific (Gibbs, 1993; Lakoff, 1993; Lakoff & Johnson, 1999), showing similarities in metaphorical charts in different languages and expecting certain logical metaphors at least to become quite common (especially in meanings and emotions). However, various surface realizations of the same metaphors can also be described, and rational metaphors may sometimes be expressed explicitly.

The notion of semantic field

Semantic fields are a word used to describe a set of words with various dramatic meanings, such as anonymous, anonymous, hyponymous, variants with the same roots (for example, phonetics, phonetics, phonemics, and phonetics (Vilashiiney, 2020). Alkhuli (2002) defines the semantic region as "a set of words that have connections with one another in a wide range of discourses." (p.134). He points out that the semanticized sector is the result of different processes of classification and subclassification. They then refer to general circumstances of expression or subjects such as culture, government, environment, fitness, transport, etc. The meaning of these phrases will be understood as abstract from any other sense by the scope of language when they occur in phrases, and by the contact between such verbs. The lexemes at semanticized temperatures are wide-

ranging in both Arabic and English, and the different lexemes are not just adjectives but also substantives and verbs. Some lexemes say rain, cold, heat temperatures, but others may not indicate water or warm.

Metaphor

A metaphor is a kind of pictorial phrase. It applies to the terms of which the conventional sense is not directly extracted from the direct definition of the words and is not autonomous from the surface interpretation of a paragraph (Graesser, 2013). Katz (1996) notes that an utterance may be called symbolic when the expressed meaning varies from the conveyed definition. e.g., the word 'that a vendor is a bulldozer' defines a vendor in a language commonly described as a machinery component."(p. 18) Listeners are the purpose of the word to step past the senses to deduce the resemblance between the characteristics of a dealer and that of a bulldozer, e.g., its weight and its aggressiveness. The general interpretation of this example is provided by Goatly (1997). He says that the metaphor occurs if a unit of conversation is used to refer unorthodoxly to an event, procedure, or definition. Lakoff (1993), uses the term "cross-domain mapping" to explain the concept (p. 203). The figurative language is referred to as a cognitive device that allows for analogies among different mental entities (such as emotions or states) such as the metaphor. The word "cross-domain mapping of the source domain (or giver) in the object domain" is then described. The former, the source domain, is known in plain language for a certain number.

Conceptual metaphor theory

In their research, Metaphors We Live By (1980), Lakoff and Johnson first suggested the principle of logical metaphor. This theory includes a paradigm of two realms for the conceptualization of metaphors, a mapping of the conceptual framework from one semantic domain (Source) to another (Target). They heavily rely on the assumption that the mental framework of the human being is divided into areas of perception (e.g., Tangible Objects; Living Things; Space); The principle of semantic metaphor assumes that linguistic meaning is dependent on incarnated perception (Al-Ahdal et al., 2014; Lakoff & Johnson, 1980). In this philosophy, embodied perception influences vocabulary and reasoning, and, via mental representations, the senses of terms and sentences are reduced, such that verbal concepts can be readily grasped (Sadoski & Paivio, 2013). From this point of view, our mind tends to develop a mental structure that depends on the specific characteristics of our bodies and the surrounding environments where we reside. In the case of emotions, the embodiment can be viewed as an outcome of the relationship between some emotional states, such as rage or pleasure, and their immediate corporal reflection.

Temperature terms

Temperature anomalies are universal, human perceptible, and fundamental in the categorization of humans (Hoffmann et al., 2022). However, their conceptualization requires a dynamic interplay of objective truth, human perception and contextual interpretation. In addition to its primary reference sense, conceptually related to a defined thermal condition of an entity, adjectives like hot, wet, cold and cool have now become commonly recognized, particularly in conjunction with some human emotions that evoke metaphoric mappings such as the term "affection is warmth" (Lakoff & Johnson, 1999), cited in Al-Sharif. Human languages appear to have specific words that describe an understanding of temperatures that vary from non-standard ones in psychological, social and linguistic respects. In particular, the following characteristics are stated to share with Taylor (1989, p. 49) and Kittay (1991, p. 23): (a) They are conspicuous, that is, they instantly come to mind; (b) They are commonly recognized throughout the international world of speech; (c) They have their meaning, usually accepted; (d) morphologically clear and not poly-lexemic; (f) We are natural or begotten; (g) The domain is used mainly for this; (h) In the application inside this scope, they are not too limited; (i) Have

universally agreed comparisons, such as hot/ cold, though usually distant, warm, tepid or tender. The area of temperature is characterized by three major sub-dimensions, called 'contact,' 'atmosphere' and 'internal feelings,' according to Plank (2003). Under the non-restricted specification, the standard temperature requirements for both of these three sub-domains will, instead of the more peripheral requirements that appear, not just for one of the sub-domains, to have minimal applicabilities, but also for different subclasses with nominal referents.

Temperature domain as a source of metaphors

Lehrer (1970) and a variety of scientists analyzed temperature as a root domain and explored different target fields to which it might form. Lehrer addressed the continuous, shifting components of 'hot,' 'warm,' 'cool' and 'cold' in the contextual area of English. She believes that the temperature concepts should be separated into subcategories including Anger or enthusiasm, affection or cordiality (e.g. acceptance, disagreements and debates) and sexual desire. The association between 'heat' and 'implication' and intense stimuli and 'cold' is another category that Lehrer (1970: 353) defines as a function rather than a type. In fact, in so far as the sensation is translated to a lexeme temperature (e.g. warmth-friendliness), the temperature lexeme antonym may be related metaphorically to the lexeme antonym (unfavorability to cold).

The concept of physiologically-oriented metonymy in Al Scharif (2007) is explored by Shindo (1998:392) with some emotions which synonymously represent a rise of the body temperature, leading to mental representations of emotions using 'hot' as fire and supposed to be more general 'cold' pain. A conceptually specific metaphor that is sometimes related to temperature (as a root domain) and Shindo discusses the expression "possession is fire," as demonstrated in sub metaphors such as "affection is hot." Nevertheless, this definition, Shindo notes, is metonymous in a way insofar as the preservation of body heat always involves being coated with and, thus, in possession of anything. The third category of extended words, sometimes linked to temperature (as a source domain), is connected to metonymies dependent on specific experiences. Since heat is harmful to humans, 'fire' implies rage as a metonym. Moreover, because cooked food is typically dry, it follows that "fire" is freshness as metonymy.

Lehrer suggests, then, wrath/excitation, sexual desire and friendliness/cordiality as the goal temperature domains in English as a source region. Nevertheless, Shindo gives a wonderful impression and feeling. But Kövecses (2000) introduces passion, lust, interest, and motivation to indicate that a decrease in body temperature is a psychological representation of 'fear,' e.g. cold feet (Lit), indicating he was scared (Metaph.).

The secularity feature of temperature

The scalarity function it handles is a significant explanation for the value of temperature in relation to metaphor (as a source domain). Shindo (1998, p. 342) states that temperature expressions initially have built-in quantitative measurements, which ensures they can encompass a wide variety of intensities within a framework of abstraction. In words "warm heart' and "cold heart',' the objectively positive emotion (i.e., passion) is paired with energy, and the necessarily negative emotion (cruelty orLack of passion) with coldness. Those scales (warm to cold, warm to cool) will occur side by side; they depend on temperature (as a source domain). For e.g., by using only the cooling temperature range, or using both the cooling and warming ranges as a whole, such metaphors can cause sub-stretches of the temperature range as the source domain. This follows then that much wrath or desire is always expressed in English in the word 'heat,' whereas the absence of such feelings is shown as 'cold,' for example.

1) Lust is heat, andLack of which is cold

- She's got a hot body(Lit). She's frigid. (Metaphor) (English)

2) Anger is heat; calmness cold

-He is a real hothead. He should keep his head cool. (English)

Cultural effect

Cross-language discrepancies are a key core aspect of cultural variations. Some societies have established various ways of seeing the environment, of understanding the connection between temperature, physiological stimuli and the complex circumstances of human life on earth (Zickfeld et al., 2019). Throughout such cultures, body-related temperature idioms of speech, metaphorically translated, may be viewed throughout relation to community expectations and everyday interactions frequently correlated with individual feelings or local environments. Shindo (1998) stresses in this relation the cultural determinism and subsequently, the difference of those feelings of regard to the areas of the humaBodydy. Of starters, 'heat' also indicates a specific feeling when applied in reference to certain areas of tBodyy. The relationship between the idioms of speech of temperature and the various sections of the humBodyy depends, in other words, totally on the particular existence of each community (Shindo, 1998). The Japanese description regarding one's failure to regulate one's indignation is an indication of a language-specific emotion seat.

Previous studies

A lot of studies have been done to compare differentlanguages' metaphors to find out the differences and similarities between them. Within different kinds of metaphors, emotion metaphors expressed by using temperature terms had received a lot of ink in the review of the literature. Some previous studies that had dealt with the concepts of emotion metaphors and temperature are:

Lorenzetti (2009) investigated in corpus form the metaphorical extensions of temperature in English and Italian, with an emphasis on general companies and the language of Internet blogs. The research proposed that not only adjectives like cold and heat, but even verbs like chill or frost have recently begun to be used in a special way and that different sensations are being generated in specific social classes, such as young adults and young people in general. The study based on the examination of a number of computerized firms in English and Italian. The specific use of temperature words among the two languages revealed major similarities and differences. Finally, it concluded that metaphorical trends that link temperature areas to emotions are in line with each other's language between English and Italian.

Al Sharif (2007) presented a comparative analysis for metaphorical expressions of Anger and happiness in English and Arabic in respect to the use of the temperature words 'heat' and 'warm' as metaphorical expressions used to conceptualize the two emotions. The study indicated that "HEAT" metaphor is the largest metaphorical conceptualization for Anger in both languages. "Anger is heat", " Anger is fire' 'and "Anger is a hot fluid in a container" are the most common metaphors used to depict emotions of Anger like a burning fire or boiling liquid that nobody could handle or even touch. 'Warmth' is the metaphorical expression used to conceptualize 'happiness 'as pointed out by the findings of the study. The study findings were the following: Arabic and English show the same degree of linguisticexploitations for metaphorical language in describing happiness and Anger, English and Arabic share some of the general or basic-level conceptual metaphors in construing the two concepts: "happiness" and "anger", and finally some certain metaphors are absent in both languages due to cultural aspects.

Methods

Research design

A corpus research was followed in this study. Body-temperature vocabulary expressions were gathered from various dictionaries, like Macmillan Thesaurus, Merriam Webster Dictionary and Thesaurus, Collins Thesaurus, English thesaurus Oxford Dictionaries and Cambridge Dictionary & Thesaurus. Furthermore, Arabic body-related temperature expressions were gathered from some Arabic online dictionaries such as, Al-Ma'ani Dictionary, LisanAl-Arab Dictionary, Al-Balaghah Dictionary by Al-Zamakhshari, Contemporary Arabic Language Dictionary, and Al-Ma'jemAl-Waseet Dictionary. A comparsion between the expressions was then conducted.

Data building

Collecting data in English and Arabic involved two steps: In the first step, data in English were collected. For doing this, the researcher collected the maximum number of Body-related temperature expressions along with their metaphorical meanings from the following English thesaurus and dictionaries mentioned above. Then, the obtained expressions, along with their metaphorical meanings, were listed in a table. (See Appendix 1.A). Based on the list, a form with the four temperature words in a vertical column and body parts Body- related expressions in a horizontal column was designed. This form was then given to Arabic informants (instructors) for the purpose of eliciting data in Arabic.

The second step involved gathering data in Arabic. In this step, two procedures were followed: First, possible Arabic Body- related temperature expressions were gathered from some Arabic online dictionaries named earlier. Since dictionaries in Arabic are not rich with such expressions, direct interviews were held with proficient Arabic instructors to elicit possible combinations in Arabic. The details of the elicitation process are presented below:

Elicitation

In this procedure, the researcher interviewed some academic instructors at Sana'a University for the purpose of direct elicitation of Body -related temperature expressions that may exist in the Arabic language. After noting down the informants' responses, the ready form which had been prepared earlier based on English combinations was given to them to mark possible combinations in Arabic based on their profound knowledge of the Arabic language. To exclude any misunderstanding, specific examples from English were provided with their translations in Arabic, such as "He has a warm heart . " means' He is kin', "She is a woman of a cold heart." means 'She is cruel." " She is a hot woman." means " She is very attractive.". Finally, all the collected Arabic expressions along with their possible metaphorical meanings, were tabulated.

Results and discussion

The results of the study will be discussed based on whether and to what extent the objectives of this study have been attained by the collected data.

Finding out which body-related temperature expressions are/are not possible in English and Arabic

The results of analyzing data in English showed that in English ELEVEN body parts and body-related expressions can be combined with the FOUR temperature words: hot, cold, warm and cool to make almost TWENTY expressions. Table 1 shows English possible combinations (marked by √) and the ones which are not possible (marked by ×).

Table 1. Possible body-related temperature expressions in English

Body. P / Tem.T.	Heart	Head	Eyes	Hand (shake)	Feet	Blood	Shoulder	Heel	Smile	Voice	Look Gaze Stare
Hot	×	√	×	×	√	√	×	√	×	×	×
Warm	√	×		√	×	√	×	×	√	√	×
Cool	×	√		×	×	×	×	√	×	×	×
Cold	√	×	√	√	√	√	√	×	√	√	√

Table 1 shows that expressions like hot head, hot heel, hot feet, warm heart, a warm handshake, warm smile, warm voice, cold heart, cold handshake, cold smile, cold voice, cold blood, cold feet, cold look, cool head, cool heel are possible combinations in English. However, expressions like *hot heart, *cold head, *warm head, *cool heart, *cool voice and * cool look seem to be unacceptable and not possible in English.

Regarding Arabic, the data indicates that TWELVE body parts and body-relatedd expressions collocate with only THREE temperature words: hot, cold and warm to make approximately TWENTY-ONE expressions. Combinations with the temperature word "cool" do not exist in Arabic. Table 2 presents possible BRTEs in Arabic.

Table 2. Possible body-related temperature expressions in Arabic

B.P / Tem.T	Heart	Head	Eyes	Hand/ Handshake	Blood	Bone	Nerves	Smile	Mind	Voice	Tongue	Look
Hot	×	√	√	√ (handshake)	√	√	×	×	×	×	×	×
Warm	√	×	√	√ (hand)	×	×	×	√	×	√	×	√
Cool	×	×	×	×	×	×	×	×	×	×	×	×
Cold	√	×	√	√ (handshake)	√	√	√	×	√	√	√	√

As presented in Table 2 , the first temperature word 'hot' in Arabic collocates with 'head', 'eye', 'handshake', 'blood' and' bone', the second word 'warm' collocates with 'heart', 'hand', 'smile', 'voice' and 'look,' and the third word 'cold' collocates with 'heart', 'eye', 'handshake', 'blood', 'bone', 'nerve', 'brain', 'tongue' and 'look'. The temperature word 'cool' as shown in the Table does not collocate with any body part or body-related expression.

The semantic similarity of the interpretations (metaphorical meanings) of BRTEs in English and Arabic

The study also follows two metaphoric meanings of BRTEs that are cross-lingual and conceptually repeated. The first semantic-extended temperature scale of the dataset is that of the temperature continuum between 'cold' or 'poor' and 'hot' and is thus designed for physiological opposites of physiological regulation versus emotional regulation (see Figure 1). This temperature scale also doesn't have the 'hot' temperature condition. It should be remembered that not every language uses secularity to equate the two emotional opposites with the opposite temperature; only a few languages use one end
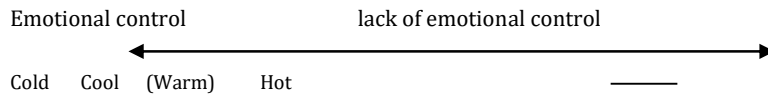
Emotional control   lack of emotional control

⟵————————————————⟶

Cold   Cool   (Warm)   Hot   ———

Figure 1: Emotional control and temperature

The second semantically-extended temperature scale moves from "cold" or 'soft' to "hot" that conceptually projects on the emotional opposites of "unfriendly," "uncareful" and "uncareful" on the one side and, on the other, "pleasant," "careful" and "sweet" on the other. This temperature scale does not usually contain 'hot,' which is more extreme than 'warm.'
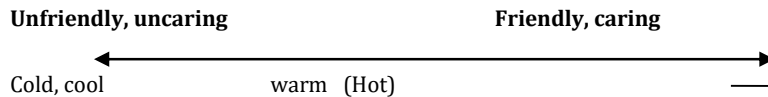
Unfriendly, uncaring   **Friendly, caring**

⟵————————————————⟶

Cold, cool   warm   (Hot)   ——

Figure 2: (Un)friendliness and temperature

Emotional control and lack of emotional control

Lakoff (1987) indicates that the loss of regulation is correlated with elevated temperatures, such as cold in the English and Arabian languages. The findings of the study in Arabic and English shows that the emotional spectrum is predicted between being in emotional control and loss of emotional control on a continuum from 'cult' to 'hot.' Both languages use the hotter component and 'mouth' to convey a deep feeling of frustration. The colder portion of the scale is used in English along with 'heart' to signify 'quietness' and 'rationality,' but this section of the scale is not used in Arabic (sees table 2). Table (3) below illustrates the extended interpretations of BRTEs in Arabic and English in terms of opposition in emotional control lack of emotional control:

Table 3. BRTEs in Arabic and English in terms of opposition in emotional control or lack of emotional control

English	Arabic

Hot
1-hot-headed(Lit)= angry(Metaph.)
2-hot feet(Lit)=very fast(Metaph.)
3-hot blooded(Lit)=
  a) strong feeling of Anger or love(Metaph.)
  b)strong sexual feeling &energy
4-hot heel(Lit)=fast chasing**(Metaph.)**
Cold
1-cold heart(Lit)= unkind, uncaring (Metaph)
2-cold blood(Lit)= lacking sympathy(Metaph)
3-cold eyes(Lit)= lacking friendly emotion(Metaph)
4– cold handshake(Lit)= lacking cordiality(Metaph)
5-cold smile(Lit)= uncaring , hostile(Metaph)
6-cold voice(Lit)= unfriendly, unkind(Metaph)
7- cold look,/gaze, stare(Lit) = lack of friendly emotions(Metaph)
8-cold shoulders(Lit)= lack of interest or attention/ carelessness/ ignorance(Metaph).
	Hot
	1- Hot headed (hamiara'as)(Lit)= angry(Metaph.)
	2-hot eye (ayinharrah) (Lit)= evil eye that harms others(Metaph.)
	3-hot hand (yadharrah) (Lit) = hard beat (Metaph.)
	4- hot handshake(musafahaharrah) (Lit)= high cordiality(Met.)
	5-hot blooded(hamiaddam)(lit)=strong emotion of jealousy(Metaph)
	6-hot bone (adhmharr)(Lit)= very fat(Metaph.)
	Cold
	1-cold hearted (barid alqlb Lit) =unaffectionate (Metaph)
	2-cold eye(ayinbarradah) (Lit) = evil eye with little harmful effect on others (Metaph)
	3-Cold hand(yad baradah) (lLit)= nervous , afraid (Metaph)
	4-cold blooded(dambarid)(Lit) = cruel (Metaph)
	5- cold bone (adhmbarid (Lit)= very thin(Metaph)
	6-cold mind (dimagh barrid) (Lit) = weak minded (Metaph)
	7-cold tongue (lisanbarrid) (Lit) = utter bad words/ evil tongue(Metaph.)
	8- cold look(naddrahbarridah) (Lit)= frightening(Metaph)
	9-cold nerves(a'saabbarridah)(Lit) = calm/relaxed (Metaph)
	10-cold voice(sawtbarrid(Lit))= calm (Metaph)

It is obvious from the Table 3 that the combinations of 'hot' in English and Arabic metaphorically stand for a strong feeling of anger, desire, speed, cordiality, danger or harm,….etc. However, combinations of 'cold' stand for out-of-control negative emotion and connotations such as unkind, uncaring, hostile, frightening, calm, unsympathetic, and unaffectionate.

Caring and uncaring

A second mathematical comparison clearly seen in the data is that which projections the rising temperature to a 'happy' or 'careful' temperament, and an 'unfriendly' or very 'hostile' mood is also called 'cold.' This trend tends to contain the words "soft" rather than "hot." Also in English and Arabic use the scale impact to project a scale that varies from "cold" to "warm," but not "heat," through the uncaring to loving moral opposition. The following samples are provided:

English

1) She has a warm heart. (Lit.) "

   She is kind and caring. (Metaph.)

2) She has a cold heart. (Lit.)

She is unfriendly and uncaring. (Metaph)

3) She has a warm smile. (Lit)

She is friendly and caring. (Metaphor)

4) She has a cold smile. (Lit)

She is unfriendly and uncaring. (Metaphor)

Arabic

1)She has a warm heart. (Lit)

   She is affectionate/kind/ caring. (Metaphor)

2)She has a warm voice. (Lit)

 She is kind/friendly. (Metaphor)

3)He has a cold heart. (Lit)

  He is unkind. (Metaphor)

The latter examples indicate that English and Arabic pair the opposition of "hot" and "cold" with opposition to "friendliness" and "unfriendliness." The following Table (4) summarizes the variations in English and Arabic of the 'hot' temperature term with their expanded semantic meanings.

Table 4. Some examples of the mapping of temperature scales onto caring

English	Arabic
Warm	**Warm**
1) Warm heart (Lit): kind and generous (Metaph)	1) Warm heart (qalbdafi'e)Lit: kind and generous (Metaph)
2) Warm eyes (Lit): caring (Metaph)	2) Warm look(nadhrahdafi'ah)Lit: caring (Metaph)
3) Warm smile(Lit): affectionate(Metaph)	3) Warm smile(ibtisamahdafi'ah)Lit: affectionate (Metaph)
4) Warm voice: friendly, peaceable, gentle, mediating (Metaph)	4) Warm voice(sawt dafi'e)Lit: friendly and comforting (Metaph)
5)Warm handshake(Lit): cordial(Metaph)	5) Warm hand(yad dafi'ah): generous, cordial (Metaph)

The last objective of this segment of the study was pointing out the differences between the extended semantic interpretations(metaphorical meanings) of BRTES in English and Arabic. The collected data indicated the following: (1) Body -related temperature expressions in English and Arabic differ in some body parts that form these combinations. For example, English uses the body parts feet, heels, and shoulders, which are not used in Arabic expressions. Arabic, on the other hand, involves the bodyparts' tongue', 'brain,' 'nerves,' and 'bones' that are not included in English expressions. (2) In both cultures, the metaphorical meanings of certain varieties vary. It is reinforced by instances where a "good speech" in Arabic motivates a reading of "calm", and it reveals comfortability and loss of compassion in English. The metaphorical meaning of the word "cold eyes" can also be another striking illustration. 'Cold Eyes' is translated into English as unfriendly. The expression 'cold eyes' in Arabic is metaphorically interpreted as an evil look that may cause someone ill or dead due to envy. A possible reason for this difference might be attributed to culture. In Islamic and Arabic literature, people believe in an 'evil eye' that harms others due to envy and jealousy; (3) English BRTEs involve the temperature term' cool' to form two combinations 'cool head' and 'cool heels,' whereas Arabic BRTEs does not include any expression with this word.

These findings are in line with many preivous studies which affirmed that some body-related temperature expressions are universal. They exist in almost all languages; therefore, they share common semantic characteristics. Shindo (1998) argues that linguistic differences between PRTE are influenced by temperature expressions that are usually human anatomy-centred whereas the sources of their disparities are primarily due to environmental influences in a particular culture. But Kövecses (2000) refutes the notion of linguistic differences arising from cognitive and physical causes. Linguistic variations may affect the chance or imply a linguistic feeling. Analysis of data of this study shows similarities between the elements involved in forming these expressions and the interpretations of their extended semantic potentials (metaphorical senses) in English and Arabic. The similarities are summarized below: (1) Body parts in BRTEs with metaphorical overtones in both languages (mouth, nose, head, breast, wrist, knee, and toe) are not included; (2) The common body parts that occur in both languages are heart, head, hand, and eye; (3) The metaphorical interpretations of shared body-related temperature expressions in English and Arabic are similar in both languages, e.g. in both languages the metaphorical interpretation of the expression 'cold heart' is 'cruel', 'unkind' or 'unsympathetic', the extended semantic interpretation of the combination' hot-headed' is ' angry' and so on (for other similar metaphorical interpretations see Appendix I. Tables B &C; (4) It is a popular practice in both languages to talk of temperature along with body gestures.

Conclusion

The current study found that in the English language, eleven (11) body parts and body-related expressions, namely, heart, head, eye(s), foot, heel(s), shoulders, blood, smile, voice, handshake and look/gaze/stare collocate with the FOUR temperature words; hot, cold, warm, and cool to form different conceptual metaphors. However, in the Arabic language, twelve (12) body parts and body-related expressions: heart, head, eye(s), brain, tongue, hand (shake), voice, smile, blood, look, bone and nerves collocate with only THREE temperature words; hot, cold and warm. The temperature word "cool" does not collocate with any body part or body-related expression.

On the basis of the findings of this analysis, it is observed that English and Arabic share some meanings of body-related heat as some of these words are common, and their expanded semantical (metaphorical interpretations) potentials in both languages are identical, while some other variations are language-specific. Their expanded textual definitions are also distinct in Arabic and English.

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