Metaphor Variation and Change in World Englishes

A Corpus-Based Study of FEAR, HUMILIATION and HOPE[1]

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Abstract. Differently from other areas of linguistic research, the study of metaphor variation and change presents some uniquely difficult challenges for systematic linguistic analysis. The recent development of cognitive sociolinguistic theory has showcased the importance of the study of conceptual differences among linguistic varieties. This paper is intended as a contribution to this field of investigation: using statistical analysis of large sets of dialectal data, we will propose an analysis of onomasiological lexical variation and change across varieties of World English. In particular, we will focus on why particular emotion conceptualizations are more frequent in some of these varieties of English. Our analysis shows that local socio-cultural models of emotions affect lexical variation and change at the dialectal level.

Keywords: Language change, conceptual variation, metaphor, World Englishes, emotions.

1. Background

The idea for this research originates from our reading of French sociologist Dominique Moïsi's *The Geopolitics of Emotion* (2009), where he discusses the far-reaching emotional impact of globalization. According to Moïsi, the geopolitics of today is characterized by a "clash of emotions", seen as a dynamic series of "emotional conflicts raised by identity issues in today's globalized world" (Moïsi, 2009, pp. 15-16). Based on this hypothesis, Moïsi tries to map the driving emotions behind our cultural differences, delineating a draft for a world atlas of dominant emotions divided into three large cultural areas:

1. The Western world, dominated and divided by FEAR.
2. The Muslim world, where a culture of humiliation is quickly developing into a culture of HATRED.
3. Large parts of Asia and Africa, where a new culture of HOPE is being created.

These three emotions have one feature in common: they are very closely related to the feeling of confidence, which not only is a crucial factor in how nations and people solve the challenges that they face and relate to each other but is also the feeling against which Moïsi defines basic emotions like *fear*, seen as the lack of confidence, *hope*, described as an expression of confidence, and *humiliation*, resulting from undermined confidence.

Moïsi's mapping of emotions relies on a variety of data, including "surveys of public opinion (how people feel about themselves, their present, and their future), the statements of political leaders, and cultural production such as movies, plays, and books" (Moïsi, 2009, p. 16). Other cultural artefacts such as architecture (which reflects the different ways a society tries to project itself in space at a given time) are also taken into account. Although the three scenarios described by Moïsi are too general to be taken as reliable mappings of 'global emotions', they provide interesting insights and hints on how different contemporary cultures and societies deal with confidence-related issues.

2. Aim and scope of the current research

As linguists, we find Moïsi's attempt to include emotions in a study of geopolitical variation extremely thought-provoking. If his assumption on the geographical distribution of driving emotions is correct, we might also assume that this distribution is somehow reflected in the linguistic uses of different speech communities around the world. Based on the existence of a correlation between dominant emotions and discourse, in the research presented here we will use a large corpus of contemporary online texts produced in different parts of the English-speaking world in order to apply Moïsi's basic assumptions to the interpretation of a series of patterns of cross-cultural metaphorical variation and change[2] in the conceptualization of these three emotions.

Our approach to linguistic variation and change is both synchronic and diachronic. In this sense, the research presented here is a contribution to the study of the connection between variation and change in linguistic surface realization (i.e., the figurative expressions for emotions) and their underlying conceptualizations. This research is rooted into the cognitive sociolinguistic paradigm (Kristiansen & Dirven, 2008), which we will apply to the study of conceptual variation and change in World Englishes (Sharifian, 2003, 2006, 2010; Polzenhagen, 2007; Wolf & Polzenhagen, 2009; Díaz-Vera, 2015; Güldenring, 2017; Polzenhagen & Wolf, 2017).

Firstly, by analysing the correlation between linguistic variables (i.e., speakers' conceptual preferences) and social factors (such as cultural area and country of origin), we will be able to identify ongoing processes of conceptual divergence across varieties of World English. Secondly, by comparing the results obtained for countries representing the same cultural area, we will be able to describe the role of socio-cultural factors leading to conceptual change and its spread across speech communities.

This paper is articulated along two main questions. On the one hand, we are interested in determining to what extent speakers from one specific cultural area talk about the emotion described by Moïsi as 'dominant' in their culture more frequently than about other, locally less dominant emotions. For instance, starting from Moïsi's hypothesis, we should expect Western speakers to refer to fear-related experiences more frequently than speakers from other parts of the world. If this is true, the number of occurrences of expressions related to *fear* in

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[2] For a study and classification of metaphorical variation across and within cultures, see Kövecses (2007).

our textual corpus should be higher for Western countries, whereas *humiliation*-words and *hope*-words should have higher occurrence percentages in, respectively, Muslim countries and (non-Muslim) Asian and African countries.

On the other hand, when speakers verbalise the emotions described by Moïsi as 'dominant' in their culture, we are interested in knowing to what extent they use richer inventories of metaphorical conceptualizations for these emotions than speakers from other countries, where the same emotion is locally less dominant. According to our second hypothesis, Western speakers will not only use *fear*-words and expressions more frequently but, much more interestingly, the richness or degree of elaboration of their FEAR metaphors at a lexical level will be substantially higher. This means, for example, that in our sub-corpus of Western English texts this emotion will be portrayed in many different ways, covering a wider range of metaphorical scenarios than the other sub-corpora (representing non-Western countries).

In order to test these two hypotheses, we have conducted three different study cases. These study cases will focus, respectively, on the identification of patterns of linguistic variation in the metaphorical expressions with the target domain FEAR, HUMILIATION and HOPE and their distribution across varieties of World English.

3. Corpus and data

The set of data used for this analysis has been collected using the *Corpus of Global Web-Based English* (GloWbE; Davies, 2013), which contains 1,9 billion words. This corpus is illustrative of the different ways English is used by speakers living in 20 different countries. One important feature of this corpus is that, using a very homogeneous genre, it illustrates how the English language is employed nowadays in a variety of sociolinguistic, cultural and religious contexts. The list of countries includes six countries traditionally considered Western (USA, Canada, United Kingdom, Ireland, Australia and New Zealand), five Asian and African countries where Islam is the largest religion (i.e., more than 35% of the population professes this religion; Pakistan, Bangladesh, Malaysia, Nigeria, Tanzania), and nine not predominantly Muslim Asian, African and American countries (India, Sri Lanka, Singapore, Philippines, Hong Kong, Ghana, Kenya, South Africa and Jamaica):

MOÏSI'S CLASSIFICATION	GLOWBE COUNTRY SUB-CORPORA
Western World	US, CA, UK, IE, AU, NZ
Muslim Asia and Africa	PK, BD, MY, NG, TZ
Non-Muslim Asia, Africa and America	IN, LK, SG, PH, HK, GH, KE, ZA, JM

Table 1. Correspondences between Moïsi's classification and
GloWbE country sub-corpora.

The texts included in this corpus belong to the personal blog genre (Miller & Shepherd, 2009) and were retrieved from 1,8 million webpages compiled in December 2012. Using this corpus, we will try to reconstruct and analyse processes of lexical and conceptual variation in different varieties of World English. The first part of our analysis will focus on the occurrence of linguistic

expressions for four different sets of emotion words (i.e., FEAR, HUMILIATION and HOPE) in the 20 countries included in the corpus, in order to try to determine to what extent, based on their frequency of usage, some of these words can be treated as cultural keywords in some of the communities under scrutiny here.

As observed by Stubbs (2001, p. 39), "words in texts are distributed very unevenly: a few words are very frequent, some are fairly frequent, and most are very rare". We can assume that the frequent words or groups of words in a speech community are cognitively more illustrative of the speaker's priorities than less frequent words (Levisen, 2013, p. 71). Ultimately, frequent words may illuminate cultural concerns and cultural values of a speech community. In fact, as Evans and Green (2006, p. 56) put it, "crosslinguistic differences should point to underlying conceptual differences. Cognitive linguists therefore argue that evidence of variation across languages suggests that languages encode very different kinds of conceptual systems". By applying these principles to our analysis of emotional expressions in different varieties of World English, we show here that (i) some of the emotion words analysed in this study are significantly more frequent in some country sub-corpora than in the others and that, consequently, (ii) they are informing us on the cultural orientations, values and ideas of the corresponding speech community.

3.1. Study-case 1: FEAR and its synonyms

Our first analysis focuses on fear. In order to explore the verbal realisation of this emotion, we analysed the distribution of *fear*-nouns preceded by verbs meaning 'to feel' in the GloWbE.[3] In doing so, we wanted to discard those occurrences of *fear*-words that do not refer to the emotional process but, rather, to the cause triggering the process (as in, for example, 'terror attack').

fear-nouns	Fear(s), concern(s), anxiety(s), terror(s), horror(s), panic(s), nightmare(s), alarm(s), distress(es), worry (worries), dread(s), apprehension(s), fright(s), phobia(s), trepidation(s)
feel-verbs	To feel, to experience, to face, to suffer, to undergo

Table 2. Synonyms of *fear* (n.) and *feel* (v.) in the GloWbE.

The total number of occurrences of these combinations in the corpus is 13,027 (relative frequency: 6.9 instances per million words; hence i.p.m.). However, the distribution of these words in the 20 country sub-corpora is highly irregular: in fact, whereas relative frequencies over 7.0 i.p.m. are found in four different country sub-corpora (UK, AU, IE, US, CA), other sub-corpora (NG, JM, TZ, KE, PK) score frequencies below 5.0 i.p.m.

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[3] These sets of synonyms were chosen automatically using the search by synonyms string available from the GloWbE.
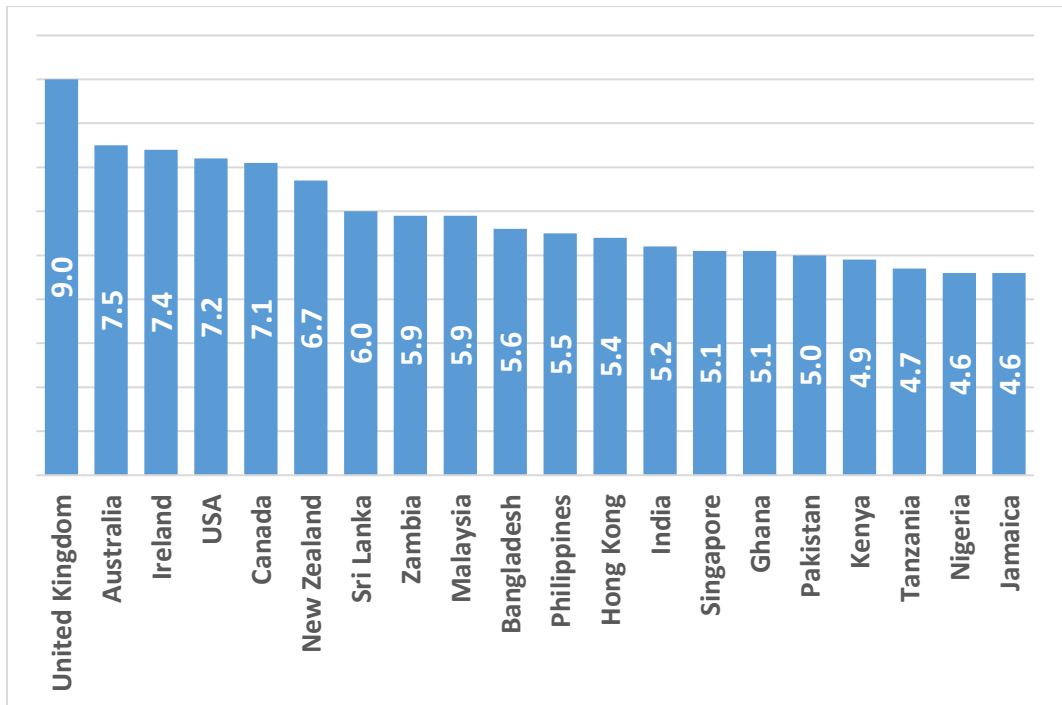
Figure 1. Distribution of **[=feel].[v*] + [=fear].[n*]**
in 20 GloWbE country sub-corpora (i.p.m.).

Based on this distribution, we may assume that emotional expressions of FEAR are relatively more frequent in those sub-corpora compiled in Western countries, which implies that Western speakers express their *fear*-related emotions more frequently than speakers from other parts of the world. This is highly coherent with Moïsi's hypothesis of the existence of a 'fear culture' in these countries.

3.2. Study-case 2: HUMILIATION and its synonyms

In the second place, we analysed the distribution of *humiliation*-nouns preceded by verbs meaning 'to feel' in the GloWbE, which includes all the V+N combinations based on the lexemes in Table 3:

humiliation-nouns	Shame(s), embarrassment(s), disgrace(s), degradation(s), humiliation(s), dishonour(s), mortification(s)
feel-verbs	To feel, to experience, to face, to suffer, to undergo

Table 3. Synonyms of *humiliation* (n.) and *feel* (v.) in the GloWbE

The total number of occurrences of these combinations in the corpus is 2,048 (relative frequency: 1.1 i.p.m.). However, the distribution of these *humiliation*-words in the 20 country sub-corpora is highly irregular: whereas three country sub-corpora (PK, NG and, to a lesser extent, KE) score high frequencies for these combinations (2.6 i.p.m., 1.8 i.p.m. and 1.3 i.p.m. respectively), most of the other country corpora score frequencies of 1.0 i.p.m. or less (as in the case of CA, NZ, SG, HK, ZA, TZ and JM):
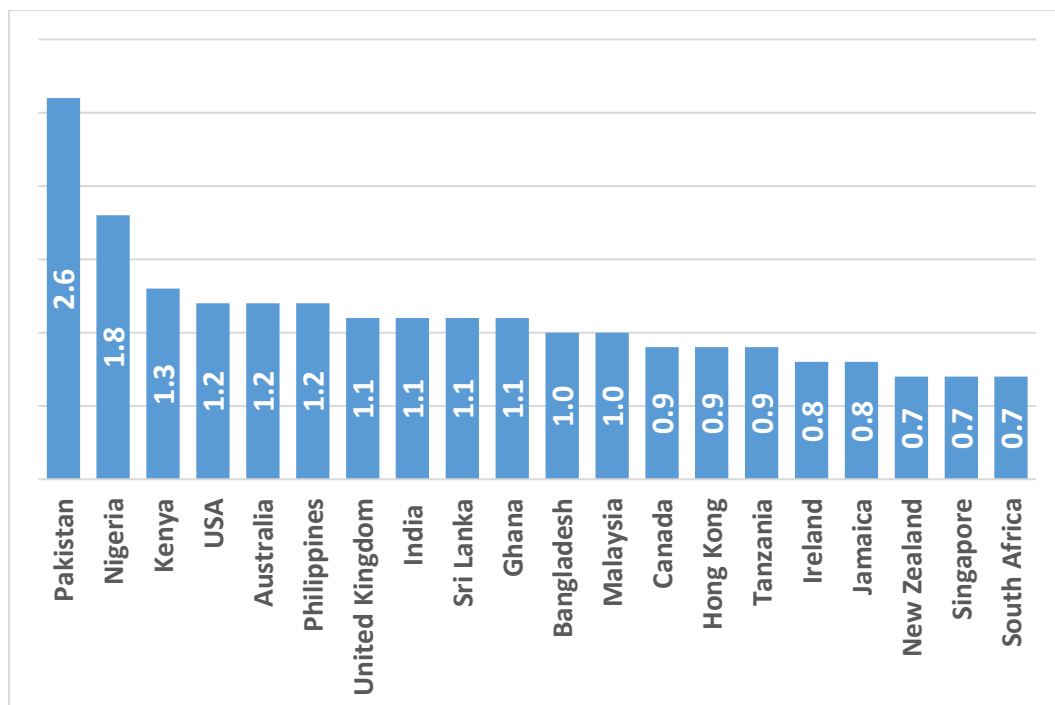
Figure 2. Distribution of **[=feel].[v*] + [=humiliation].[n*]**
in 20 GloWbE country sub-corpora (i.p.m.).

3.3. Study-case 3: HOPE and its synonyms

In the third place, we analysed the distribution of *hope*-nouns in the GloWbE (see Figure 3). Since the number of verbs that can be combined with these nouns is much larger than in the preceding two cases (as HOPE includes not only 'to feel' and its synonyms but also 'to have' and its synonyms), we counted all the occurrences of the noun *hope* and its synonyms (see Table 4), independently of the verb that accompanies them.

hope-nouns	Hope(s), confidence(s), dream(s), potential(s), possibility(s), promise(s), prospect(s), wish(es), expectation(s), likelihood(s), optimism(s), anticipation(s), aspiration(s), hopefulness(es)

Table 4. Synonyms of *hope* (n.) in the GloWbE.

The total number of occurrences of *hope*-words in the corpus is 781,346 (relative frequency: 414.4 i.p.m.). As in the preceding two study-cases, the distribution of these words in the 20 country sub-corpora is relatively irregular: whereas the five African country sub-corpora score over the average frequency 414.4 i.p.m. (other country sub-corpora with high scores are JM, UK and CA), most of the other country corpora score frequencies below that average; this is the case of HK, NZ, AU and US, with less that 400 i.p.m.:
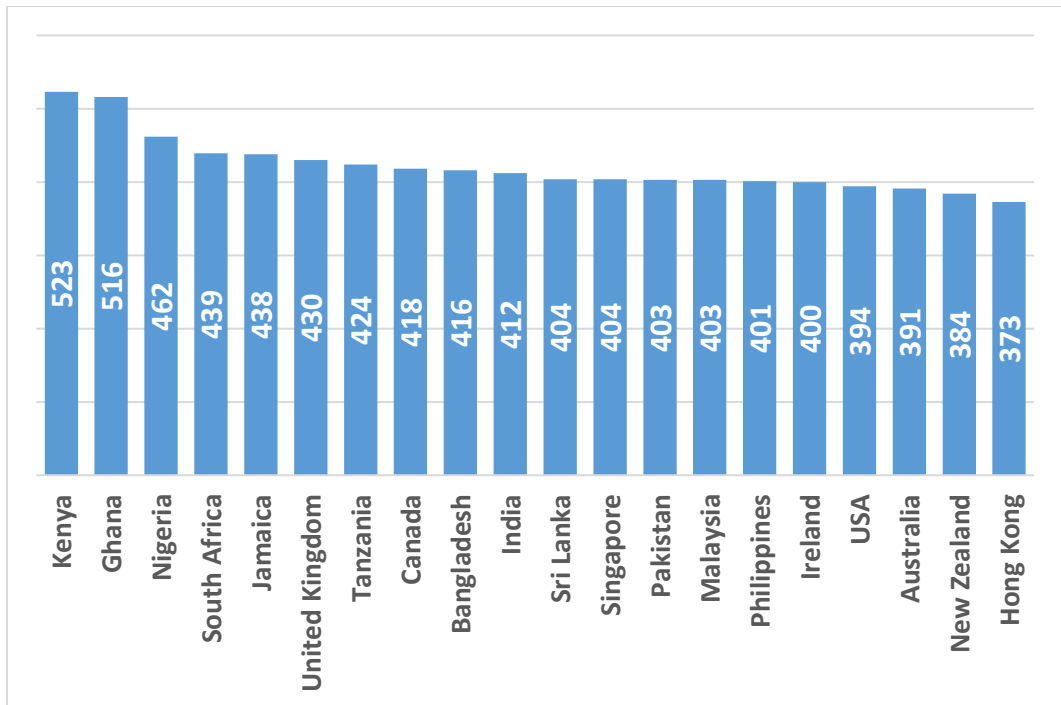
Figure 3. Distribution of **[=hope].[n*]**
in 20 GloWbE country sub-corpora (i.p.m.).

Based on these findings, we may assume that there exists a correlation between the distribution of *fear*-, *humiliation*- and *hope*-expressions found in the GloWbE and the geographical distribution of emotions. Thus, according to our data while expressions of FEAR are much more frequent in Western countries, two Muslim countries (namely NG and, especially, PK, with a number of instances per million words that is twice as high as the third country on the list) show the highest relative frequencies for *humiliation*-expressions in the entire corpus. As for *hope*, as can be seen from Figure 3, four non-Muslim African countries followed by Jamaica occupy the five highest positions in terms of relative frequency of occurrences of expressions for this emotional experience.

4. Metaphor variation and change in World Englishes

In the second part of this study, we analyse the metaphorical representation of FEAR, HUMILIATION and HOPE in six selected country sub-corpora (two per emotions) within the GloWbE. Using a metaphorical profile approach (Díaz-Vera & Caballero, 2013; Ogarkova & Soriano, 2014), we produced an inventory of the metaphors used in each country sub-corpus in order to identify conceptual preferences in the metaphorical representation of these three emotions in different English-speaking cultures. Differently to previous research, however, in our research we will not compare how emotions are conceptualised in different languages but, rather, how emotions are conceptualised in different varieties of the same language. The methodology used here (adapted from Ogarkova &

Soriano, 2014) starts with the selection of two different GloWbE country sub-corpora for each emotion. The corpora chosen correspond to the countries with the highest and the lowest rate of occurrence of the groups of words under scrutiny. For the *fear*-group we analysed the UK section (9.0 i.p.m.) and the NG section (4.6 i.p.m.). For the *humiliation*-group we analysed the PK section (2.6 i.p.m.) and the SG section (0.7 i.p.m.). Finally, for the *hope*-group we analysed the KE section (523 i.p.m.) and the HK section (373 i.p.m.). In each section, we randomly retrieved one thousand hits of these words (4,700 sentences in all: in the case of humiliation, only 500 hits in PK and 100 hits in SG). Thereafter, following Stefanowitsch's (2006) 'metaphorical pattern analysis', we identified literal and metaphorical expressions, and, in the second case, we manually extracted the metaphorical patterns illustrated by each occurrence. Metaphorical expressions were then classified into conceptual metaphors according to their source domain in order to start our contrastive analysis of emotion metaphors in World Englishes.

Our first step was to try to determine the relative frequency of literal vs. figurative expressions used in each corpus sub-section. As can be seen in Figure 7, literal expressions of FEAR are less frequent than metaphorical expressions for the same emotion in the UK sub-corpus (45.1% vs. 54.9%). However, our NG data show a very different result, with a prevalence of literal (57.1%) over figurative (42.9%) expressions. Following our initial hypothesis, Figure 4 shows that there is a correlation between the relative frequency of an emotion word and the relative frequency of metaphorical expressions for that emotion. Ultimately, it could be tentatively argued here that, in the same way as UK speakers, English speakers from other countries where fear is the dominant emotion might tend to use more figurative expressions than speakers from other geographical and cultural areas.
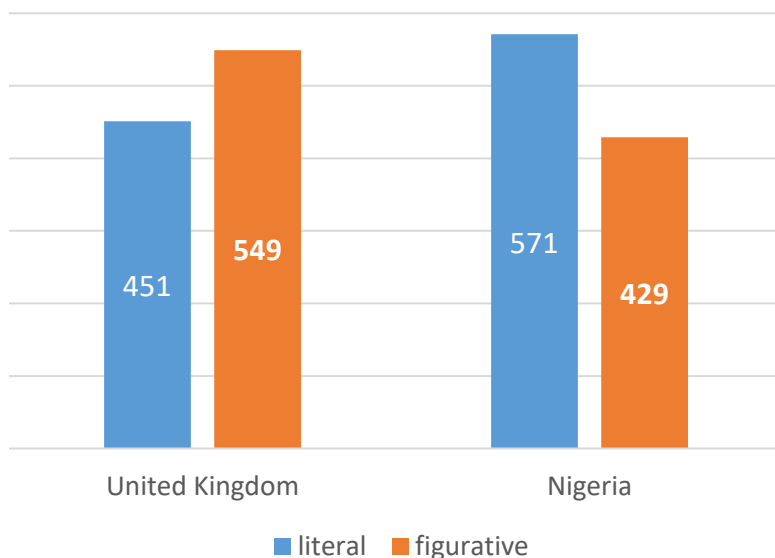

Figure 4. Distribution of literal and metaphorical FEAR expressions (**[=feel].[v*] + [=fear].[n*]**) in UK and NG (1,000 random hits per country).

Interestingly, our data of the distribution of literal and metaphorical expressions for HUMILIATION and HOPE (see Figures 5 and 6) show very similar tendencies, with a general preference for figurative expressions in the two sub-corpora that represent the two countries where these emotions are considered dominant by Moïsi (2009), namely Pakistan (for HUMILIATION) and Kenya (for HOPE).
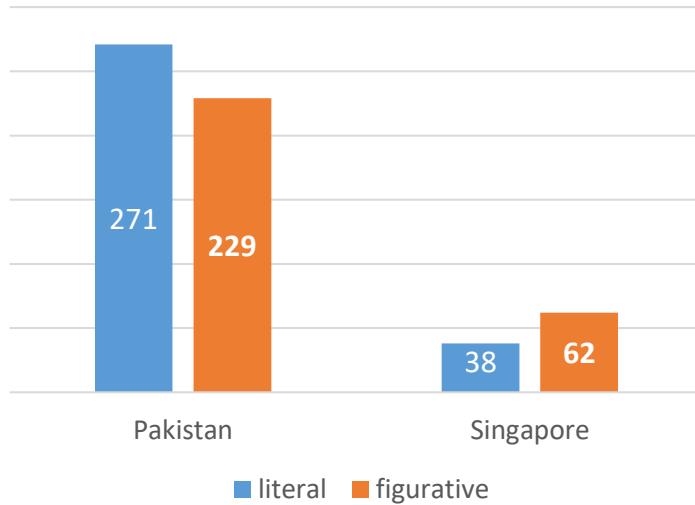
Figure 5. Distribution of literal and metaphorical HUMILIATION expressions
(**[=feel].[v*] + [=humiliation].[n*]**) in PK (500 random hits) and SG (100 random hits).
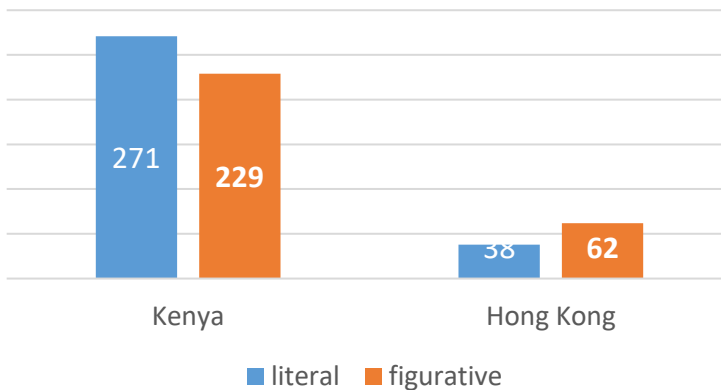
Figure 6. Distribution of literal and metaphorical HOPE expressions
(**[=hope].[n*]**) in KE and HK (1,000 random hits per country).

4.1. Variation and change in the metaphorical representation of FEAR

It is now time to try to determine differences in the metaphorical representation of these three emotions in the three pairs of country sub-corpora indicated above. In order to do so, we compare the metaphor inventories proposed for each

emotion in order to try to determine both the shared and the dialect-specific elements in the metaphorical representation of FEAR, HUMILIATION and HOPE in different varieties of World English.

In the case of FEAR, our analysis of 1,000 hits from each sub-corpus (UK and NG) yielded the results shown in Table 5:

Source domains	UK (%)	NG (%)
PHYSICAL ENTITY	37.2	40.56
LOCATION	16.76	10.96
OPPONENT IN A STRUGGLE	12.02	12.82
ILLNESS	4.37	3.50
FOUNDATION	4.19	1.17
LIVING ORGANISM	3.83	4.20
THE BODY IS A CONTAINER	2.73	6.99
PRESSURIZED FLUID IN THE BODY-CONTAINER	2.00	1.86
LIGHT/BRIGHT	1.82	0.23
FORCE	1.64	3.96
ENVIRONMENT	1.64	1.40
COLD	1.64	0.70
INSANITY	1.64	0.23
PAIN	1.46	0.93
TOOL	0.91	2.80
MESSAGE/IDEA	0.91	1.86
INTENSITY IS DEPTH	0.73	-
TEACHER	0.73	-
MORE IS UP/LESS IS DOWN	0.55	0.70
BURDEN	0.36	0.70
MOVING ENTITY	0.36	-
DANGER/THREAT	0.36	-
WEAPON	0.36	-
SUPERNATURAL	0.18	1.40
FORCE OF NATURE	0.18	1.17
SOURCE OF ENERGY	0.18	0.93
COSTLY	0.18	0.47
INTENSITY IS A SCALE	0.18	-
ROOM	0.18	-
VEIN	0.18	-
NARCOTIC	0.18	-
SOUND	-	0.23
COCOON	-	0.23

Table 5. Relative frequency of conceptual metaphors for FEAR in UK and NG.

As Table 5 shows, both cultures illustrate a nearly identical repertoire of conceptual metaphors for FEAR. Broadly speaking, most of the source domains included in this inventory profile FEAR as something negative or even harmful. In fact, FEAR is frequently depicted as a negative physiological or psychological state (as in ILLNESS, PAIN, COLD and INSANITY) or as an enemy (as in DANGEROUS ANIMAL or OPPONENT IN A STRUGGLE). Furthermore, such conceptualizations of FEAR as a harmful tool or substance (as in WEAPON or NARCOTIC), as a risk to the emoter's integrity (as in FORCE OF NATURE or DANGER/THREAT), as an impediment (as in BURDEN or SOLID OBJECT/BARRIER) or even as economic loss for the emoter (as in

COSTLY) are inherently negative. In some of these cases, negativity is accompanied by potential harm and damage, either to the emoter or to other people around. However, in one single case FEAR is presented as something positive: a COCOON that offers protection to the emoter (in the sentence "Come out of that cocoon of fear and live your life. stop allowing life's issues/peoples failures to determine your destiny"; nairaland.com). As can be seen in Table 6, the negativity and harm/damage appraisals for FEAR are more prominent in the UK data, whereas metaphors emphasising the positivity of FEAR have been found only in the NG data.

	Source domains	UK		NG	
	ILLNESS	24	4.40%	15	3.50%
	INSANITY	9	1.65%	1	0.23%
	PAIN	8	1.47%	4	0.93%
	COLD	9	1.65%	3	0.70%
	OPPONENT IN A STRUGGLE	66	12.11%	55	12.82%
	LIVING ORGANISM > ANIMAL	4	0.74%	5	1.17%
	WEAPON	2	0.37%	-	-
	NARCOTIC	1	0.18%	-	-
	DANGER/THREAT	2	0.37%	-	-
	FORCE OF NATURE	1	0.18%	5	1.17%
	BURDEN	2	0.37%	3	0.70%
Negativity	SOLID OBJECT > BARRIER	12	2.22%	-	-
	COSTLY	1	0.18%	-	-
	TOTAL	**141**	**25.89%**	**91**	**21.22%**
	self: ILLNESS	24	4.40%	15	3.50%
Harm/damage	self: INSANITY	9	1.65%	1	0.23%
	other: WEAPON	2	0.37%	-	-
	other: DANGER/THREAT	2	0.37%	-	-
	TOTAL	**37**	**6.73%**	**16**	**3.73%**
Poss	COCOON	-	-	1	0.23%
	TOTAL	**-**	**-**	**1**	**0.23%**

Table 6. Metaphors profiling negativity, positivity and harm/damage in UK and NG.

Going back to Table 5, we see that the largest number of occurrences in both sub-corpora point to FEAR as something physical or tangible, as in FEAR IS A PHYSICAL ENTITY. In order to analyse this conceptual metaphor in detail, we have calculated the relative frequencies of all its subtypes in both corpus sections (see Table 7).

Source domains	UK		NG	
PHYSICAL ENTITY	5	2.48%	20	12.12%
E VISIBLE/HIDDEN OBJECT	6	2.97%	9	5.45%
E CONSISTENCE/TEXTURE	3	1.49%	3	1.82%
E POSSESSION	119	58.91%	108	65.45%
E MOVED OBJECT	1	0.50%	-	-
S SOLID OBJECT	12	5.94%	-	-
E INTENSITY IS SIZE	17	8.42%	18	10.91%
S SUBSTANCE	7	3.47%	-	-
E INTENSITY IS QUANTITY	25	12.38%	3	1.82%
E MIXTURE	7	3.47%	5	3.03%

Table 7. FEAR IS A PHYSICAL ENTITY; E = entailment subtype metaphor; S = special case subtype metaphor.

Via this metaphor, FEAR is often presented in both corpora as a physical and three-dimensional – albeit, often unspecified – object which (a) can be manipulated in various ways (e.g., *handled*, *generated*, *produced*, *manufactured*), (b) may come in different sizes (e.g., *huge*, *massive*) or quantities (e.g., *one*, *a little*) and (c) can be moved, i.e., is predicated by verbs such as *bring back*. Many of these instantiations involve the use of possessive verbs (such as *have*) or, much more frequently, of possessive terms (such as *my*, *your*, *of*, or *s*-possessives). Although these uses have become so conventional that they no longer feel metaphorical, they nevertheless point to entrenched views of that emotion as a concrete thing that is "possessed", rather than felt, by the emoter.

One important difference between these two sub-corpora has to do with the entrenchment FEAR IS A SOLID OBJECT, which renders this emotion as a wall or a barrier that prevents the emoter from reacting against the source of FEAR. Whereas expressions based on this conceptualisation are relatively frequent in the UK section, they are totally absent from the NG section. A very similar image (i.e., an emoter unable to react against the emotional stimulus) is rendered by the conceptual metaphor FEAR IS A LOCATION, which occupies a very relevant position in our data:

> the preposition *in* is used in expressions that denote very intense states. These may be emotions as well as intense physical states such as pain or mental states such as puzzlement, all of which qualify as containers which may constrain the free will of a human being (Radden, 1998, p. 276).

These emotions, described as intense and predominantly negative, trigger physiological reactions beyond the emoter's control or responsibility. Interestingly, whereas the UK data analysed for this study indicate that this is the second most frequent mapping (16.88%), the NG data point towards a preference for the metaphor FEAR IS AN OPPONENT IN A STRUGGLE (12.82%). Rather than a completely passive role on the side of the emoter, this third metaphor indicates that the emoter tries to fight in pursuit of self-control (Kövecses, 2008, p. 383), illustrating a very different reaction to this emotion. Taken together, the

metaphors used in the UK corpus promote an understanding of fear as an emotion that paralyses the emoter, an idea that is strengthened by the metaphors FEAR IS ILLNESS, FEAR IS INSANITY or FEAR IS COLD (as in *frozen with fear*). The examples extracted from the NG corpus promote an understanding of fear that needs to be regulated by the emoter, who opposes resistance to the emotion and/or does not see it as an insuperable obstacle to their goals (Kövecses, 2000, 2008).

Other important components of emotional experience are regulation and expression, understood as the tendency to inhibit or to enhance certain behavioural or physiological manifestations of emotions (Scherer, 2009; Ogarkova & Soriano, 2014). This idea is conveyed by the metaphor FEAR IS A PRESSURIZED FLUID IN THE BODY-CONTAINER, especially by those entailments where the emoter does not lose control of the pressure (as in COUNTERPRESSURE, PRESSURE and CONTENTION). The opposite pattern is highlighted by those other entailments where the fluid comes out of the body-container once the emoter has lost control of the emotion (as in COMING OUT and EXPLOSION). As our analysis reveals, whereas metaphors highlighting enhanced fear regulation are more prominent in the UK data (1.65% vs 0.46%), unrestrained regulation patterns are slightly more salient in the NG sub-corpus (0.92% vs 0.37%; see Table 8).

Source domains	UK		NG	
enhanced regulation				
PRESSURE	8	1.47%	-	-
CONTENTION	1	0.18%	-	-
COUNTERPRESSURE	-	-	2	0.46%
unrestrained emotion				
COMING OUT	2	0.37%	4	0.92%

Table 8. Metaphors profiling regulation of fear in UK and NG.

Finally, we will briefly analyse the distribution of metaphorical patterns profiling the expression of FEAR by the emoter. Following Ogarkova and Soriano (2014), we will assume here that such metaphors as FEAR IS LIGHT/BRIGHT and EXTERNAL BODY PART (EYES, FACE, VOICE) IS A CONTAINER OF FEAR highlight the visibility of these emotions, whereas INTERNAL BODY PART (HEART, BODY) IS A CONTAINER OF FEAR profile a more internalised view of this emotion. As can be seen from Table 9, our data point towards a higher degree of externalisation of fear in the UK sub-corpus; this is in contrast with the relatively higher prominence of 'internalised' fear in the NG data. If these differences can be taken as illustrative of actual cultural variation, we could assume here that the somatic component of fear tends to be more salient in Western cultures than in non-Western ones.

Source domains	UK		NG	
visible fear				
LIGHT BRIGHT	2	0.37%	-	-
CONTAINER: EYES	4	0.73%	1	0.23%
CONTAINER: SOUND	-	-	1	0.23%

Source domains	UK		NG	
'internalised' fear				
CONTAINER: BODY	5	0.92%	19	4.43%
CONTAINER: HEART	3	0.55%	7	1.63%

Table 9. Metaphors profiling expression of fear in UK and NG.

These results can also be interpreted in the light of recent research on cross-cultural psychology (e.g., Frijda & Mesquita, 2000; Mesquita et al., 2016), which suggests that "collectivistic communities experience a greater urge to repress the overt manifestation of intense negative emotions for the sake of harmony within the group" (Soriano, 2015, p. 213). With their preference for 'internalised' fear, the NG data indicate this tendency to repress manifestations of fear, in clear contrast with the more visible fear highlighted by our UK data (reflecting a more positive evaluation of external manifestations of negative emotions as affirmations of the self, which is typically found in individualistic cultures).

In conclusion, we argue here that the UK sub-corpus is much richer not only in number of *fear* expressions but also in number and variety of FEAR metaphors than the NG sub-corpus. The differences in the distribution of metaphorical patterns described above indicate that the UK *fear* expressions highlight the negative and harmful aspects of this emotion. Furthermore, whereas both sub-corpora show very similar frequencies of expressions highlighting the need to regulate fear (FEAR IS A PRESSURIZED FLUID IN THE BODY-CONTAINER metaphor), visual manifestations of this emotion are more frequent in the UK data.

4.2. Variation and change in the metaphorical representation of HUMILIATION

We now analyse the metaphorical expressions for HUMILIATION found in two other GloWbE sections: PK (with the highest number of occurrences of *humiliation* words in the whole corpus) and HK (with the lowest number of occurrences of these words). The general results of our analysis can be seen in Table 10.

Source domains	PK (%)	SG (%)
PHYSICAL ENTITY	35.79	36.84
ILLNESS	11.07	13.16
LOCATION	8.86	7.89
DANGER/THREAT	7.75	13.16
OPPONENT IN A STRUGGLE	7.75	7.89
PAIN	5.17	-
COSTLY	3.32	2.63
MOVING ENTITY	3.32	-
LIVING ORGANISM	2.95	7.89
INTENSITY IS DEPTH	2.21	-
WEAPON	2.21	-
BURDEN	1.85	2.63
MESSAGE/IDEA	1.11	2.63
FORCE	1.11	-
TOOL	1.11	-

Source domains	PK (%)	SG (%)
INTENSITY IS SCALE	0.74	-
CORPSE	0.74	-
FORCE OF NATURE	0.37	2.63
PRESSURIZED FLUID IN THE BODY-CONTAINER	0.37	2.63
BAD IS DARK	0.37	-
ARCHITECTURAL ELEMENT	0.37	-
DIRT	0.37	-
QUALITY	0.37	-
TASTE	0.37	-
TREAT	0.37	-

Table 10. Relative frequency of conceptual metaphors for HUMILIATION in PK and SG.

As can be seen in Table 10, just like in the case of FEAR metaphors, the repertoire of source domains is comparatively richer and more varied in the corpus section with a higher rate of usage of *humiliation* expressions (i.e., PK).

Humiliation is an eminently negative and harmful emotion, which has very pernicious effects on the person and his/her social dynamics (Collazzoni et al., 2014, p. 252). This can be seen from the very high frequencies of usage of source domains highlighting these two aspects of this emotion in the two sub-corpora under scrutiny here. In this sense, it is interesting to note that the two sub-corpora have yielded a very similar rate of usage of metaphors profiling negativity and harm (PK: 40.33/26.20; SG: 42.10/26.32): the difference between these two ways of referring to humiliation is not based on the frequency of metaphorical expressions but on the number of different source domains used to express the strong negativity character of humiliation, which is much higher in the case of the PK section (the domains PAIN, DEPTH, WEAPON, BURDEN, DARK, DIRT and BAD TASTE are totally absent from the SG sub-corpus; see Table 11).

	Source domains	PK		SG	
	ILLNESS	30	11.07%	5	13.16%
	DANGER/THREAT	21	7.75%	5	13.16%
	OPPONENT IN A STRUGGLE>CONTROLLER/SUPERIOR	18	5.64%	3	7.89%
	PAIN	14	5.17%	-	-
	COSTLY	9	3.32%	1	2.63%
	LIVING ORGANISM > ANIMAL	2	0.74%	1	2.63%
	DEPTH	6	2.21%	-	-
	WEAPON	6	2.21%	-	-
	BURDEN	2	0.37%	-	-
	CORPSE	2	0.74%	1	2.63%
Negativity	DARK	1	0.37%	-	-
	DIRT	1	0.37%	-	-
	BAD TASTE	1	0.37%	-	-
	TOTAL	**113**	**40.33%**	**16**	**42.10%**

	Source domains	PK		SG	
Harm/ damage	self: ILLNESS	30	11.07%	5	13.16%
	self: PAIN	14	5.17%	-	-
	other: WEAPON	6	2.21%	-	-
	other: DANGER/THREAT	21	7.75%	5	13.16%
	TOTAL	**71**	**26.20%**	**10**	**26.32%**

Table 11. Metaphors profiling negativity and harm/damage in PK and SG.

These metaphors, all of which highlight the negative effects of the emotion on the victim of humiliation, represent instances of what Lindner (2000) lists as one of the four possible reactions to humiliation: depression. Not surprisingly, many of these source domains are frequently found in metaphors for depression (Charteris-Black, 2012). Other frequent conceptualizations of HUMILIATION, such as LOCATION and PHYSICAL ENTITY (especially in the case of the entailments HUMILIATION IS POSSESSION, HUMILIATION IS TRANSFERRING AN OBJECT and HUMILIATION IS A SOLID OBJECT/BARRIER), suggest a more passive approach, including the acceptance of being inferior (prosocial humiliation; Lindner, 2000) as a reaction to this emotion. Passivity as a response to humiliation is more frequent in our SG data, as can be seen in Table 12.

Source domains	PK		SG	
Accepted (prosocial) humiliation				
LOCATION	24	8.86%	3	7.89%
PHYSICAL ENTITY > POSSESSION	18	6.64%	2	5.26%
PHYSICAL ENTITY > TRANSFERRING AN OBJECT	11	4.06%	9	23.68%
PHYSICAL ENTITY > SOLID OBJECT/BARRIER	25	9.23%	2	5.26%
TOTAL	**78**	**28.78%**	**16**	**42.11%**

Table 12. Metaphors profiling passive response to humiliation in PK and SG.

A third reaction to humiliation involves aggression, either hidden or open, of the oppressor (Lindner, 2000). Only three expressions (1.11%) from the PK sub-corpus illustrating the metaphor HUMILIATION IS AN OPPONENT IN A STRUGGLE express this type of reaction, where the emoter opposes resistance of some kind before being overcome by the oppressor. We have not found any examples instantiating this entailment in our SG sub-corpus, with a clear preference for HUMILIATION IS A CONTROLLER/SUPERIOR (see Table 11 above). In sum, although humiliation is represented in very similar ways in both sub-corpora, based on this data we can affirm that the examples extracted from the PK section cover a wider range of scenarios than the SG data where, for instance, we do not find any examples related to pain, weapon or burden.

4.3. Variation and change in the metaphorical representation of HOPE

Finally, we analyse briefly how hope is construed metaphorically in two sub-corpora: KE (highest rate of occurrence of *hope* words in the GloWbE) and HK (lowest rate of occurrence; see Figure 3 above). Similarly to fear, hope is an anticipatory emotion experienced due to the prospect of a future event (Baumgartner et al., 2008). The positive character of this future event is clearly codified in the source domain LIGHT/BRIGHT, which is one of the most frequent conceptualisations of HOPE in both sub-corpora, as can be seen in Table 13.

Source domains	KE (%)	HK (%)
PHYSICAL ENTITY	72.62%	74.72%
LIVING ORGANISM	10.44%	9.27%
LIGHT/BRIGHT	9.51%	7.30%
MOVING ENTITY	1.16%	2.81%
LOCATION	1.16%	2.25%
MESSAGE/IDEA	0.70%	0.28%
FLAME/FIRE	0.46%	0.56%
RELIGION	0.46%	0.56%
ENVIRONMENT	0.46%	-
GOAL	0.46%	-
GREENERY	0.46%	-
BUILDING	0.23%	0.84%
GIFT	0.23%	-
MERCHANDISE	0.23%	-
STRATEGY	0.23%	-
TASTE	0.23%	-
WEAPON	0.23%	-
SOURCE OF ENERGY	0.23%	
SOUND	0.23%	0.56%
TOOL	0.23%	0.28%
FOOD AND DRINK	-	0.28%
TEXTILE	-	0.28%

Table 13. Relative frequency of conceptual metaphors for HOPE in KE and HK.

This positive character is also highlighted by the source domains RELIGION, GOAL, GREENERY, GIFT, SOURCE OF ENERGY and (GOOD) TASTE. Their distribution in the two sub-corpora is as follows:

Source domains	KE		HK	
Postive HOPE				
LIGHT/BRIGHT	41	9.51%	3	7.30%
RELIGION > DIVINITY	2	0.46%	2	0.56%
GOAL	2	0.46%	-	-
GREENERY	2	0.46%	-	-
GIFT	1	0.23%	-	-

Source domains	KE		HK	
SOURCE OF ENERGY	1	0.23%	-	-
GOOD TASTE	1	0.23%	-	-
TOTAL	**50**	**11.60%**	**5**	**7.86%**

Table 14. Metaphors profiling positivity in KE and HK.

Similarly, the following metaphors highlight the idea of futurity: FLAME (as the beginning of a fire), LIVING ORGANISM > ENGENDERING/GIVING BIRTH and LIVING ORGANISM > SEEDING. In the three cases, HOPE is construed as the beginning of something that will grow in the future. The distribution of these three source domains is very similar in both sub-corpora, as illustrated in Table 15:

Source domains	KE		HK	
HOPE in the future				
FLAME/FIRE	2	0.46%	2	0.56%
LIVING ENTITY > ENGENDER	4	0.92%	1	0.28%
LIVING ENTITY > SEED	4	0.92%	4	1.12%
TOTAL	**10**	**2.30%**	**5**	**1.96%**

Table 15. Metaphors profiling futurity in KE and HK.

5. Concluding remarks

Starting from Moïsi's views of the world as – roughly – distributed in three large emotional areas and the classical tenet of language as a window to our mental and emotional states, in the present paper we have explored, on the one hand, whether the speakers of those areas favour the emotions driving their lives and, on the other, the quality of the metaphors motivated by those emotions. In order to do so, we focused on the twenty countries represented in the GloWbE, all of them representative of what is known as World Englishes, as well as the three 'driving emotions' identified by Moïsi (i.e., fear, humiliation and hope).

The data extracted from the GloWbE show the importance of those three emotions on a textual level, supporting Moïsi's geopolitical approach to emotions from a linguistic perspective. Firstly, the data clearly show that speakers from each 'emotional region' will talk about the 'driving emotion' that, according to Moïsi, governs their culture more frequently than other, less culturally relevant emotions. For example, whereas *fear*-expressions are much more frequent in Western countries sub-corpora (and, very specially, in the UK; see Figure 1), expressions for *humiliation* abound in two sub-corpora illustrating how English is used in two countries with Muslim majority, namely PK and NG (Figure 2). Similarly, *hope*-related expressions show higher degrees of relative frequency in non-Muslim, Central African countries (such as KE and GH; see Figure 3). Furthermore, the data presented here show different types of balance between literal and figurative emotional expressions, so that the relative frequency of emotion metaphors in a sub-corpus tends to be proportional to the relative frequency of usage of general expressions for that emotion (see Figures 4, 5 and

6). Broadly speaking, this implies that, when talking about those emotions that govern their society or culture, the use of figurative expressions by speakers increases. For example, whereas figurative *fear*-expressions override literal *fear*-expressions in UK, there is a clear preference for literal *fear*-expressions in NG (Figure 4). Identical trends have been identified in our contrastive analysis of *humiliation*-expressions in PK and SG (Figure 5) and of *hope*-expressions in KE and HK (Figure 6).

Secondly, the data discussed here show that higher metaphorical usage implies a wider range of metaphorical mappings. On most occasions, these mappings will highlight very central aspects of these three emotions (such as positivity, negativity, expression and reaction). These aspects are thus reinforced through the usage of new sets of conceptual mappings, that reflect local attitudes and culture.

These findings are highly relevant in terms of our understanding of the mechanisms underlying linguistic variation and change. In the first place, our analysis clearly shows that, just like phonological or grammatical variation, metaphorical variation can be systematically structured and described in terms of objective features (Sweetser, 2002, p. 24). Much more importantly, the patterns of metaphorical variation identified in this study are highly regular and, as such, they can be predicted with relative accuracy. Broadly speaking, our research shows that culturally relevant emotions (or, by extension, culturally relevant concepts) will be affected by two different diachronic tendencies, so that (i) the relative frequency of literal and figurative expressions for these emotions will increase; and (ii) the catalogue of figurative expressions for these emotions will also become richer and more varied, as speakers will develop new metaphors in order to highlight specific aspects of the emotional experience. Thus, through their everyday conceptual choices, speakers from a specific cultural area will develop and spread more and more patterns of metaphor variation in their linguistic varieties, contributing to larger indexes of conceptual divergence between varieties of World English.

In conclusion, given the strong relation between metaphor and culture, in this research we have showed that, through the identification and analysis of regular patterns of metaphoric variation and change, we can gain further insights not only into the synchronic and diachronic mechanisms of linguistic change but also into the role of culture as a determinant factor of change.

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