

Corpus-Based Approaches to Figurative Language

A Corpus Linguistics 2009 Colloquium

Colloquium Companion

*John Barnden, Mark Lee, Jeannette Littlemore,
Rosamund Moon, Gill Philip, Alan Wallington (Eds.)*

CSRP-09-01 July 2009

School of Computer Science

University of Birmingham

Birmingham B15 2TT

United Kingdom

“That girl is hot, her dress is so cool, and I’m just chilling out now”: Emergent Metaphorical Usages of Temperature Terms in English and Italian

Maria Ivana Lorenzetti

University of Verona

E-mail: mariaivana.lorenzetti@univr.it

1. Introduction

One of the most significant achievements in metaphor theory in the last twenty years has been the observation that metaphor is not merely a decorative tool, or a rhetorical figure, but it plays a central role in people’s thought and imagination (Lakoff and Johnson 1980).

Since conceptual metaphor theory claims to describe central processes and structures of human thought, it should have explanatory power and be of potential use in cross-linguistic research as well. The possibility that metaphors are not language-specific has been investigated in a variety of studies in the last few decades (Lakoff 1993, Gibbs 1993, Sweetser 1990, Viberg 2001) highlighting similarities in metaphorical mappings across different languages, and leading to the conclusion that at least some conceptual metaphors are widely shared (especially in the realms of perception and emotions). However, different surface realisations of the same metaphors can also be found (Deignan et al. 1997, Boers and Demecheleers 1997), and sometimes apparently different conceptual metaphors can be used.

The present contribution aims to investigate the lexical area of English and Italian temperature terms, and present a corpus-based contrastive study of their metaphorisation patterns. In addition, our aim is to account for the emergence of novel and more abstract senses (Moore 2004), through the exploitation of special types of “less conventional” metaphors. Adjectives such as *cool* and *hot*, but also verbs such as *chill*, or *frost*, have recently started to be employed in idiosyncratic ways, leading to the emergence of new senses of the terms within particular social groups, such a teen-agers or young people in general.

Section 2 of our contribution presents some background remarks on temperature terms. After introducing our method of analysis (section 3), we shall concentrate on lexical meaning and on possible different segmentations of the temperature continuum in English and Italian in section 4. In sections 5 and 6 a corpus-based contrastive analysis of this lexical area is carried out in an attempt to delineate possible common patterns of metaphorisation between the two languages, by drawing special attention to their most frequent collocates, while data from the language of Internet blogs are examined in section 7. Our conclusions follow.

2. Temperature Terms

Temperature terms are an interesting lexical sets and both their high degree of salience and frequency of occurrence contribute to their semantic flexibility. Temperature phenomena are universal, easily perceptible by humans and basic in human categorization (Wierzbicka 1996). Their conceptualization, however, involves a complex interplay between external reality, bodily experience and subjective evaluation. Temperature terms can be therefore characterized as both embodied and perspectival with regard to their meaning, since rather than reflecting an objective image of the external world, they offer a naïve picture permeated with folk theories that are based on people’s experience and rooted in their cultural models.

Words belonging to this semantic field are very frequent in use, a feature often held responsible for changes through semantic extension and application to other semantic domains (Biber et al. 1999, Bybee 2006, Sweetser 1990, Thompson and Hopper 2001). Not only do languages show remarkable differences in the number of temperature terms they have (Sutrop 1998), or in the way they categorize the temperature continuum, but also in the extended senses of temperature terms derived through metaphor exploitation.

It is by now universally accepted that adjectives such as *hot*, *warm*, *cold* and *cool*, apart from the primary referential meaning conceptually linked to a given thermal state of a particular object,

are also used metaphorically, especially in association to specific human emotions, such as ‘affection is warmth’ (Lakoff and Johnson 1999) or ‘anger is heat’ (Kövecses 1995), and are frequently extended to other perceptual modalities (Williams 1976), as in “hot spices”, or “warm colour”. However, to what extent do such metaphorical extensions effectively reflect universal metaphorical patterns is still a matter of dispute among scholars (Geeraerts and Grondlerlaers 1995).

3. Data and Method

Our contribution has a predominantly descriptive aim. Therefore, details of surface linguistic structure are of crucial importance and might help us to account for the emergence of novel usages of the terms, which after being used as a source of innovation in a restricted or socially-marked speech community, might over time spread to wider strata in the population, according to the mechanisms described by Croft (2000) in his evolutionary model of language change.

A series of computerised corpora were used in our analysis: the English corpora are the British National Corpus (BNC), a 100M word collection of samples of written and spoken language from a wide range of sources, queried thanks to the Sketch Engine Interface, and the Corpus of Contemporary American English (COCA), including 385M words collected between 1990 and 2008 in different typologies of spoken and written texts. As for Italian, the web-derived 2 billion-word ItWac Corpus (Italian Web Corpus) (Baroni and Ueyama 2006) was consulted.

Our results with general corpora were compared with an analysis of the language of Internet blogs which, being a hybrid linguistic genre, are held to constitute a huge source of linguistic innovation. Blogs were examined on the Technorati Blog Portal, which enables to conduct specific word queries in blogs in various languages.

For each lexeme, 1000 occurrences were examined (when available), and the main collocate terms were outlined, either automatically or manually, by using the KWIC (Key Word in Context) concordance format. Subsequently, occurrences of the terms were classified either as literal or not, and the non-literal ones were examined in more detail, in order to classify the type of underlying figurative use they represent.

4. Temperature Terms in English and Italian

For characterizing perception of temperatures, human languages tend to have basic terms, which are distinguished from non-basic ones in psychological, social and linguistic respects. In particular, they a) are salient, i.e. they spring to mind immediately; b) are widely known throughout the whole speech community; c) have their meaning generally agreed upon; d) are morphologically simple and tend not to be polylexemic; d) are native or nativized; e) are primarily used for this domain, but f) within this domain they are not too restricted in application (Taylor 1989: 49; Kittay 1991: 232).

One of the main features of basic terms is that they seem to establish meaningful contrasts within a larger field, and it is evident that when we analyse the English temperature scale, such pairs as *hot/cold*, *warm/cool/chilly* provide the most widely accepted contrasts, while *scorching*, *heated*, *tepid* or *lukewarm* can generally be characterised as more peripheral. According to Plank (2003), the domain of temperature is shaped by three main sub-dimensions, which he labels touch, atmospheric and personal feelings. On the ground of their non-restricted application (see f) above), basic temperature terms should be applicable to all the three sub-domains, as opposed to more peripheral terms, which tend to have limited applicability not only to one of the three sub-domains, but also to specific subclasses of nominal referents.

A preliminary comparison between English and Italian temperature terms was necessary, in order to confront the segmentation of the temperature continuum in the two languages, and establish possible gaps.

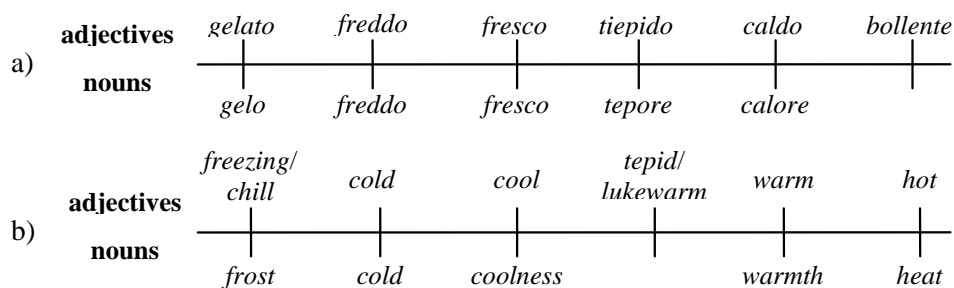


Figure 1. The Temperature Scale in English and Italian

As it can be easily observed in Figure 1, both English and Italian possess a wide range of lexemes in the semantic field of temperature, and basic ones are not only adjectives, but also nouns and verbs. However, certain asymmetries can be outlined in the Italian terminology, such as the existence of nouns different from adjectives for both *warm* and *hot*, but nothing for ‘very hot’ (or ‘boiling’), since the word *bollore* does not mean ‘extreme heat’, while with reference to terms denoting degrees of *cold*, a noun different from the corresponding adjective only exists for *frost* (Figure 1). Moreover, it must be pointed out that the phonological similarity between the two adjacent pairs *fresco* and *freddo*, which might erroneously lead to the conclusion that the two terms are related, is in fact only incidental, since *freddo* derives from Latin, while *fresco* is a loanword from Germanic (the root is the same as for English *fresh*), which apparently filled a gap in the Italian temperature terms, where there is no term for the concept of *cool*.

LEXEME	Occurrences in BNC	Occurrences in COCA ¹
Cold (adj.)	9.421	49066
Cold (noun)	2.358	*
Hot (adj.)	8718	48273
Hot (noun)	40	*
Warm (adj.)	6062	27617
Warm (noun)	36	*
Warm (verb)	1496	*
Cool (adj.)	2958	28297
Cool (noun)	196	*
Cool (adv.)	68	*
Freeze (verb)	1911	5265
Frost (noun)	707	3760
Chill (verb)	281	5798
Chill (noun)	705	*
Chilly (adj.)	336	1857
Tepid (adj.)	81	565
Lukewarm (adj.)	169	632

a)

LEXEME	Occurrences in ItWac
Caldo	122572
Freddo	98422
Bollente	8074
Gelato	14411
Gelido	9072
Tiepido	9298

b)

Table 1. Frequency of English Temperature Terms in BNC and COCA (a) and of Italian Temperature Terms in the ItWac Corpus (b)

Table 1a displays frequency counts of English terms analysed in the BNC and COCA corpus. Given the high number of occurrences of various polyfunctional words in the BNC as adjectives, and since adjectives are reported to constitute basic temperature terms cross-linguistically, the bulk of this work focuses more predominantly on them. For the English language they are *hot* (adj.) *cold* (adj.), *warm* (adj.), and *cool* (adj.). However, less frequent and more peripheral terms,

¹ Differently, from the BNC, which enables to query words by part of speech, the COCA does not have this function, and selection must be carried out manually. Therefore, the number of occurrences of *hot* is intended to include its usages as an adjective, noun and verb.

such as *freeze* (verb), *frost* (noun), *chill* (noun/verb), *chilly* (adj.), *tepid* (adj.) and *lukewarm* (adj.) were also examined, even though less significant for their figurative usages.

The most frequent temperature terms in the ItWac Corpus are reported in Table 1b. Our analysis on the Italian corpus is also carried out on adjectives, and specifically on *caldo* (adj.), *freddo* (adj.), *tiepido* (adj.). Their results were also compared with the less central adjectives *bollente* (adj.), *gelato* (adj.) and *gelido* (adj.).

5. Metaphorical Usages of English Temperature Terms

In this section, the results of our analysis are presented, which compare the main temperature terms in their literal and more abstract senses, by considering words which might be classified as near synonyms (Cruse 1986), and examining their main collocates.

5.1. Hot and Warm

The literal senses of *hot* and *warm* are located on adjacent positions of the temperature scale, as shown in Figure 1, and according to the BNC corpus their most frequent collocating nouns are concrete and similar for both adjectives (Table 2). This picture is consistent with data from the COCA corpus, where the most frequently co-occurring nouns again typically denote concrete entities, despite the presence of *spot* as the sixth most frequent collocating noun of *hot*, as in *hot spot* (911 occurrences), which sometimes presents ambiguities between a literal and an abstract reading.

<i>Hot</i> Collocates	<i>Warm</i> Collocates
weather	room
sun	Sun/sunshine
days	air
water	weather
summer	hand
bath	night
drink	bed
air	breeze
food	clothing

Table 2. Nouns Collocating with *Hot* and *Warm*

However, if we also consider adverbial modifiers of the two adjectives, we can observe that *hot* tends to appear with adverbs, such as *stiflingly*, *unbearably*, *uncomfortably*, *bloody* and *oppressively*, which display a negative connotation. By contrast, *warm* co-occurs with positively valued modifiers, such as *unseasonably*, *pleasantly*, *surprisingly* and *reasonably*.

The fact that the two terms refer to a temperature range from moderately high (*warm*) to high (*hot*) might lead us to the conclusion that it might be possible to have a systematic mapping of their literal meaning onto an abstract domain, by preserving their loose synonymy. By contrast, even though the two terms have abstract senses related to the domain of feelings and emotions, their usages tend to diverge. *Hot* acquires abstract meanings related to anger² (*The increase in crime gave rise to a hot debate; he's a hot head*) through the metaphor 'anger is a heated fluid in a container' (Lakoff and Johnson 1990), difficult and potentially problematic situations (*After his words, the room fell into a hot heavy silence*), and sexual excitement (*I was with this hot-assed dame who kept rubbing against me*) (Table 3).

² For a discussion on cultural and physiological aspects related to anger-metaphors, see Geeraerts and Grondelaers (1995) and Kövecses (1995).

1. Topical; New	This is a <i>hot topic</i> under discussion An anthology which is <i>hot off the presses</i> from the publishers Collins	39,2%
2. Anger	Dad gets <i>all hot and bothered</i> if someone parks in his parking place Don't get <i>hot under the collar</i>	26,4%
3. Excitement; Sexual Arousal	I tried to talk some <i>hot red-headed cheerleader piece of ass</i> from Indiana. He was <i>hot for her</i> , but the marriage was never consummated.	16,7%
4. Illegal, dangerous	The car dealer was accused of selling <i>hot cars</i> This is getting <i>too hot</i> to handle	10,7%
5. Extension to other sensory modalities	I already knew you liked Thai-food, <i>red-hot</i> curry and rice	10,7%

Table 3. Abstract Readings of Hot

By contrast, *warm* tends to be associated to positive feelings of friendliness (*She has caught him staring at her with a warm, smiling expression in his brown eyes*) (Table 4).

Similarly to other temperature descriptors, the two terms are exponents of the metonymic mapping 'temperature stands for emotions', which is alleged to have an experiential base in the physiological changes, such as raised body temperature and increased heart beat, which accompany states of arousal.

1. Friendliness	I got out and gave him a <i>warm</i> handshake, and he told me to enjoy my life	68%
2. Contentment	He drew comfort from her <i>warm</i> support	27,3%
3. Extension to other sensory modalities	His eyes glowed with the same <i>warm</i> light. <i>Warm</i> colors look good on most skin tones.	4,7%

Table 4. Abstract Readings of Warm

5.2. Cold and Cool

When used literally, *cold* might be labelled as near synonym of *cool*. Similarly to *hot* and *warm*, its most frequent collocating terms refer to the domain of weather. However, among the first co-occurring nouns listed, it is possible to notice nouns like *voice*, *eye* and *war*, which refer to abstract senses of the terms (Table 5).

<i>Cold</i> Collocates	<i>Cool</i> Collocates
weather	breeze
voice	air
water	drink
night	ground
radiator	dude
eye	place
hand	water
ice	look
war	reception

Table 5. Nouns Collocating with Cold and Cool

The two terms can be found in a series of metaphorical usages, which appear to be somehow related to their literal senses. The spectrum of metaphorical senses of *cold* ranges over all degrees of negative and neutral emotions, such as 'angry', 'reserved', 'terrified' and 'dead', which apparently developed in Middle English from 'void of ardour and enthusiasm' to 'void of sensual passion' (Ruhl 1989: 186) (Table 6).

Today, cold-blooded people, as opposed to hot-blooded ones, are those that are not easily excited or who have little feeling, a relic of the medieval belief that the temperature of the blood controlled a person's temper and was responsible for changes in mood and behaviour. This sense of *cold* can be outlined in expressions such as *done in cold blood*. Therefore, it apparently seems that opposition with *hot* is preserved, at least for some senses, even at a figurative level.

1. Without friendly emotions	He gave me a bright <i>cold</i> stare.	48,7%
2. Controlled Emotions	There was a <i>cold</i> anger in his voice.	26%
3. Without sexual feeling	Apparently, she's sexually <i>cold</i> .	9,3%
4. Hostility	She would never feel welcome in this city with its <i>cold</i> , unsmiling inhabitants	6,4%
5. Uninteresting, lacking emotions	The school was a <i>cold</i> , unwelcoming place	7,2%
6. Unprepared	I came <i>cold</i> to the interview	2,4%

Table 6. Abstract Readings of *Cold*

As reported by the *OED*, in its earlier stages *cool* was frequently employed as a synonym of *cold*, as it can be born out by expressions such as *cool safe*, and *cool-room*. Both terms seem to refer to lack of friendly feeling (see senses 1 and 4 in Table 7), and *cold* seems to denote similar but more intense behaviour in this respect (see senses 1, 2, 4 in Table 6), thus preserving the relationship that the two lexemes have in their literal senses.

1. Not heated by passion or emotion: calm, undisturbed	While she wept, I strove to be <i>cool</i> . She likes to play it <i>cool</i> . I have to be honest, I really <i>lost my cool</i> and had a big argument with him.	41,2%
2. Term of approval: excellent, esp. sophisticated, classy (orig. African-American Slang)	This is Dom. He is super <i>cool</i> , and an amazingly talented designer!! There's this one marketing company that are always coming up with <i>cool</i> ways.... To promote the film this clever marketing company have come up with a really <i>cool</i> Facebook	23,2%
3. All right, OK, satisfactory, unproblematic	It's <i>cool</i> with me.	13,5%
4. Wanting in cordiality	I am rather upon <i>cool</i> terms with her	7,6%
5. Applied to jazz music: restrained or relaxed in style	The new developments which were first to become bebop and then just bop and finally cool jazz.	2,7%

Table 7. Abstract Readings of *Cool*

However, *cool* presents a peculiar history which makes it stand out among temperature terms, since, as reported by Moore (2004), it can be labelled a counterword, namely an expression whose meaning has expanded to a broader and more general applicability than that of the term's original referent. For the sake of brevity, here we shall only comment on its usage as a term of approval (see senses 2 and 3 in Table 7). *Cool* in its meaning of 'good, fine, fashionable' is now used as a universal term of approval among young people in North America and the UK (as well as in many other non English-speaking countries). A language survey conducted among late adolescent college junior college students in the USA gave *cool* a 91, 57% use and recognition rating, concluding that the word is a key element of "a meta-code that cuts across all the many sub-species of teenage argot" (Pountain and Robins 2000).

However, *cool* is not a synonym of good, but carries an additional and often barely perceived connotation, which sometimes also implies an ironic inversion of values. In this sense, the adjective can no longer be compared with other temperature terms, such as its adjacent pair *cold*, or those terms which could be labelled as its antonyms, i.e. tepid and lukewarm. On the contrary, its opposite term in this sense is *uncool*, only attested in the COCA corpus (155 occurrences), as in *you don't want to be supremely uncool and say "I saw your mom in the newspaper yesterday"*.

5.3. Peripheral Terms

Besides central temperature adjectives *hot*, *cold*, *cool* and *warm*, several other more peripheral terms can be outlined, which can be used literally to talk about temperature, but sometimes occur in figurative expressions as well.

At the low end of the temperature continuum we find the verb *freeze* in its various inflected forms, which is either used to indicate ‘remaining motionless’, both of people and of prices, or ‘locking someone out socially’, as in *they froze out the newcomers*. *Icy* and *chilly* have metaphorical senses denoting unfriendliness, which are somehow related to metaphorical senses of *cold* (*She chilled me once too often. I won't take that from a dame*, meaning to reject someone). However, it must be pointed out that *chilling* and *chilly*, although under-represented in the corpora examined, have developed peculiar senses. *Chilling* can both be used to refer to the ‘control’ and ‘fear’ senses of *cold*, as in *He gave us a chilling account of the whole story*, but the verb *chill* can also mean ‘calm down’, or even ‘relax’ (*Before, we're gonna debate this matter, you're all gonna have to chill out*). Moreover, *chilling* can be used as a term of approval, to indicate something excellent, as in *I had one chillin' time last night*.

Both *lukewarm* and *tepid* are metaphorically used to describe behaviour that is not really very friendly or enthusiastic, even though not openly negative. Their behaviour seems to respect their source domain near synonymy relation with *warm* (*It must have been heartbreaking for people who had been through sensational experiences to have to recount them to politely tepid audiences; Mr Rifkind is lukewarm about the idea*).

6. Metaphorical Usages of Temperature Terms in Italian

In Italian basic temperature terms can be employed figuratively in variety of different situations. Considering its most frequent co-occurring nominals and modifiers (Table 8), *caldo*, the highest basic term on the temperature scale, can be seen to parallel some of the figurative usages of its English counterparts, since it might refer to someone full of ardour and enthusiasm (*una testa calda/ a hot head*), affectionate, friendly behaviour (*‘una calda accoglienza’/ a warm reception*), or a critical and potentially dangerous situation (*‘l'Iran è una zona calda’ / Iran is a hot area*). Apparently there is no complete diagrammaticity or unique correspondence at the lexical level, since *caldo* can cover the spectrum of metaphorical senses of both *hot* and *warm*.

<i>Caldo</i> Co-Occurring Nouns	<i>Caldo</i> Co-Occurring Modifiers
stagione / periodo / giorno	intenso
aria / vento / clima / sole	insopportabile
acqua	killer
doccia / bagno	impossibile
cibo (latte, olio, tavola)	eccessivo
luce / colore	tropicale
argomento / tema	afoso / asfissiante
testa	intimo / accogliente

Table 8. *Caldo* and its Collocating Nouns and Modifiers

However, different near synonymous terms can also be employed to account for the full range of metaphorical nuances of *hot*, as in ‘il fronte caldo della Guerra’ (*the hot war front*), ‘una campagna elettorale rovente’ (*hot political campaign*), ‘gli hanno passato la patata bollente’ (*they passed him the hot potato*), ‘bollenti videoclip’ (*hot videoclips*), meaning sexy or ‘bruciante sconfitta’ (*scorching defeat*).

Freddo seems to display consistent similarities with *cold* in its metaphorical usages, as testified by a variety of common locutions between the two languages, as ‘una doccia fredda’ (*a cold shower*), to indicate an unexpected and unwelcome outcome, and ‘a sangue freddo’ (*in cold blood*), as well as by a series of modifiers, such as ‘diabolicamente’ (*devilishly*), and

‘manipolatore’ (*manipulator*). *Tiepido* follows the pattern of both tepid and lukewarm with no significant difference (Table 9).

Freddo Co-Occurring Nouns	<i>Tiepido</i> Co-Occurring Nouns
acqua	clima
guerra	acqua
clima/ serata / stagione	accoglienza
ambiente / accoglienza	sole / calore
mente	aria
sguardo / carattere	sodalizio / sostegno
sarcasmo	atteggiamento
sudore	segnali
cronaca	clima

Table 9. Collocating Nouns with *Freddo* and *Tiepido*

7. The Language of Internet Blogs

In order to examine the wide range of web-based and youth-coined terms which have emerged in the last few years based on temperature terms, an analysis was carried out on the Technorati blog portal.

A comprehensive survey of the wide range of multi-word expressions in which basic temperature terms can occur to give rise to slangy collocations is beyond the scope of this contribution. However, the results of our search on a sample of 300 occurrences of basic temperature terms in English and Italian can lead us to some generalisations, albeit partial, since the results obtained are not filtered by age, region or social group of the blogger, but only by date.

Most occurrences of *cold* in blog posts appear to be related to its temperature sense (264), while others focus on the sense of ‘control and calculating personality’ with 11 occurrences (*a popular image in our society is of the cold, corporate business owner who doesn’t care about anything but profit*). The sense related to ‘lack of feelings or emotions’ (*in cold blood; I didn’t like that movie. It left me cold*) occurred 13 times, followed by the ‘fear sense’ (*my heart turned cold with fear* – 5 occurrences). Another usage of the adjective, though limited to only 4 instances can be paraphrased as ‘plain and simple’, as in *these are cold statistics*. It is also significant that an expression like *it struck me cold*, encountered in 3 occurrences, can be used to indicate something that can shock people³, showing the ambivalence of the term between an indifference reading and something which provokes strong and perhaps unexpected emotions.

Hot occurs on the web in a variety of different expressions, which range from the ‘temperature sense’, which is quite common (115 occurrences), to the ‘tricky, problematic situation’ sense (*hot potato, hot issue* – 53 occurrences) and to the ‘anger’ sense (*hot under the collar, hot-headed* -39 occurrences). The last two senses, we argue, can be viewed as related through the metonymy-based metaphor ‘anger is a heated fluid in a container’. Other expressions found with *hot* refer to goods illegally obtained (4 instances), as in *hot stuff, hot ice* (stolen diamonds) and seem to be connected with this chain of senses, through the ‘hot is dangerous’ metaphor, derived from the concept of fire (Wierzbicka 1996).

Its ‘sexual excitement’ sense (*hot chicks, hottest women*) can also be expanded to include inanimate entities which are somehow appealing, as in *hottest private tech company, hot new hair colour* and *hot cell phone* (76 occurrences). The latter sense, in which the adjective is applied to objects or inanimate entities which are appealing or attractive, can be viewed as an instance of a new ‘blended sense’ (Fauconnier and Turner 2002) of the term, combining both the ‘attractiveness’ of the ‘sexual sense’ and the ‘intense and immediate interest’ reading, as in *hot topic*. It is also worth reporting a series of other uses of the term, which might be mediated from the ‘appealing’ sense through the ‘up to date’ one, indicating someone exceedingly skilful, as in

³ This sense might be related to something unexpected, as in *I came cold to the interview*.

he's hot on maths, or a *hot driver* (13 occurrences), meaning both skilful and fast. The latter sense, together with increasing association of the adjective with inanimate objects viewed as appealing, seems to denote a general shift in value in the case of the term, which in some other cases, as a relic of cultural stereotypes (Geeraerts and Grondelaers 1995), has negative connotations, while here is positively viewed.

As for *cool*, the blog citations found mainly cluster around the adjective as a term of approval (*cool idea; the house is pretty cool*) in 168 citations and as a term for 'all right, correct, unproblematic' (*is it cool to let children win, when you play with them; it's cool with me*), in 46 occurrences. 38 entries refer to the literal sense of the adjective, while the sense 'calm, detached, controlled' as in *stay cool*, or *play it cool* occurs 48 times in the citations examined.

It is not easy to establish links between the various senses of the term, due to its complex history. However, it is worth saying that association of the term *cool*, but also of *chilling* (as in *I had a chillin' time last night; or everybody there was chillin'*), *chilly*, mainly in the Afro-American community and, in a minority of cases, of *cold* (*Cold, fine, exceptional*) with positive values as terms of approval reflect the need of youth culture to create slangy words, which express approval, and align the speakers with an attitude or set values characterising his/her own generation (Moore 2004).

Citations in Italian seem to be in line with results from the corpora, where climatic senses of *caldo* and *freddo* are reported in the majority of cases, respectively 183 for *caldo* and 213 for *freddo* and their inflected, comparative and superlative forms followed by a series of expressions, such as 'settimana calda' (*hot week*), 'autunno caldissimo' (*very hot Autumn*), 'tema caldo' (*hot topic*), 'reazione a caldo' (*immediate reaction*), or 'doccia fredda' (*a cold shower*), 'a mente fredda' (*upon reflection*) and 'reazione fredda' (*cold reaction*), which mirror the senses outlined from the corpora.

Moreover, uses of *cool* and *hot* are also common in Italian blogs. The senses reported cluster around 'recent, fresh' (*hot news*), and sexy ('un look decisamente *hot*'/ *hot outfit*) for *hot*, and 'great, excellent' and popular for *cool* ('suonerie più *cool* tra i teenager'/ *coolest ringtones among teenagers*). The latter seem to have expanded in use thanks to the media, and most notably television channels targeted to young people.

The need for basic slang terms expressing positive judgements is common in Italian as well. However, *cool* is not the only expression used, and there are various terms which partially correspond to it, such as *figo* ('fa più *figo* correre in motorino'/ *running with your motorbike is cool*), which according to the occurrences reported in corpora is the most-widely spread candidate as a possible counterpart with 1.181 results in the portal. Other regional variants of minor currency, like *forte*, *ganzo*, and novel expressions, such as 'fare lo splendido', or 'fare il brillante' (*play it cool*) are also possible.

8. Conclusion

Metaphor patterns which link the temperature domains to the realm of emotions are consistent cross-linguistically between English and Italian. A strong evaluative component can be outlined in both languages for both figurative and non-figurative usages, and not only do we have a mapping correspondence with specific emotions, but both languages present the same type of evaluative component associated to each emotion, i.e. extreme temperatures tend to be negatively-charged, but differences can be found as well. Figurative meanings tend to overlap in Italian (Figure 2), where there is no complete diagrammaticity with the metaphorical usages of the corresponding English terms on the temperature spectrum.

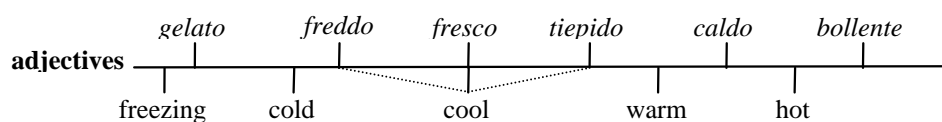


Figure 2. Correspondences in the Lexicon of Temperature in English and Italian

Lakoff (1993) argues that innovative metaphors tend to work by analogy with conventional ones. However, the new senses of *hot* and *cool*, we argue, are also connected to shifts in value and involve a re-analysis of the stereotypical association connected to specific terms and to the concepts they stand for. The negative connotation of *hot* is its ‘anger’ and ‘sexual excitement’ sense is a relic of medieval Western culture. Nowadays, by contrast, especially in conjunction with its sense related to ‘sexual desire’, a shift in value can be outlined, and the term can no longer be viewed as totally derogatory, which made it possible for it to be applied to non-human referents by ‘blending’ the characteristics of ‘novelty’, ‘popularity’ and ‘appeal’.

In English, and especially in young people slang, *cool* is an umbrella term, which covers a variety of different meanings and is metaphorically associated to a wide range of emotions. In Italian either more terms, not necessarily temperature-based, need to be used to cover the various metaphorical meanings applied to *hot* and *cool*, or the two terms are used in English in the data collected from blogs.

References

- Baroni, Marco and Motoko Ueyama (2006) “Building General- and Special-Purpose Corpora by Web Crawling”, *Proceedings 13th NIJL International Symposium, Language Corpora: Their Compilation and Application*, Tokyo, 31-40.
- Biber, Douglas et al. (1999) *Longman Grammar of Spoken and Written English*, London, Longman.
- Boers, Frank and Murielle Demecheleers (1997) “A Few Metaphorical Models in (Western) Economic Discourse”, in Wolf-Andreas Liebert, Gisela Redeker and Linda R. Waugh (eds.) *Discourse and Perspective in Cognitive Linguistics*, Amsterdam, John Benjamins: 115-129.
- Bybee, Joan (2006) “From Usage to Grammar: The Mind’s Response to Repetition”, *Language* 82(4). 711-733.
- Croft, William (2000) *Explaining Language Change. An Evolutionary Approach*, London, Longman.
- Cruse, D. Alan (1986) *Lexical Semantics*, Cambridge, Cambridge University Press.
- Deignan, Alice et al. (1997) “Teaching English Metaphors using Cross-linguistic Awareness-raising Activities” *English Language Teaching Journal* 51: 352-360.
- Fauconnier, Gilles and Mark Turner (2002) *The Way We Think. Conceptual Blending and the Mind’s Hidden Complexities*, New York, NY, Basic Books.
- Geeraerts, Dirk and Stefan Grondelaers (1995) “Looking Back at Anger: Cultural Traditions and Metaphorical Patterns”, in John R. Taylor and Robert MacLaury (eds.), *Language and the Construal of the World*, Berlin, Mouton de Gruyter: 153-179.
- Gibbs, Raymond (1993) *The Poetics of the Mind*, Cambridge, Cambridge University Press.
- Kittay, Eva Feder (1991) *Metaphor: Its Cognitive Force and Linguistic Structure*, Oxford, Clarendon Press.
- Kövecses, Zoltan (1995) “Anger: Its Language, Conceptualization, and Physiology in the Light of Cross-cultural Evidence”, in John R. Taylor and Robert MacLaury (eds.), *Language and the Construal of the World*, Berlin, Mouton de Gruyter: 181-196.
- Lakoff, George (1993) “The Contemporary Theory of Metaphor” in Andrew Ortony (ed.) *Metaphor and Thought*, Cambridge, Cambridge University Press: 202-251.
- Lakoff, George and Mark Johnson (1980) *Metaphors We Live by*, Chicago, IL, The University of Chicago Press.
- Lakoff, George and Mark Johnson (1999) *Philosophy in the Flesh*, New York, NY, Basic Books.
- Lehrer, Adrienne (1970) “Static and Dynamic Elements in Semantics: Hot, Warm, Cool, Cold” *Papers in Linguistics* (Carbondale), 3: 349-373
- Moore, Robert L. (2004) “We’re Cool, Mom and Dad Are Swell: Basic Slang and Generational Shifts in Values” *American Speech* 79, 1:59-86.
- The Oxford English Dictionary. 2nd ed. 1989. OED Online. Oxford University Press.
<<http://www.oed.com/>>
- Plank, Frans (2003) “Temperature Talk: The Basics” *Paper Presented at the Workshop on Lexical Typology at the ALT Conference in Cagliari*, Sept. 2003.
- Pountain, Dick and David Robins (2000) *Cool Rules. Anatomy of an Attitude*, London, Reaktion Books.

Ruhl, Charles (1989) *On Monosemy. A Study of Linguistic Semantics*, New York, NY, State University of New York Press.

Spears, Richard A. (1997) *Hip&Hot! A Dictionary of 10.000 American Slang Expressions*, New York, NY, Gremercy Books.

Sutrop, Urmias (1998) "Basic Temperature Terms and Subjective Temperature Scale", *Lexicology* 4: 60-104.

Sweetser, Eve (1990) *From Etymology to Pragmatics. Metaphorical and Cultural Aspects of Semantic Structure*, Cambridge, Cambridge University Press.

Taylor, John R. (1989) *Linguistic Categorization: Prototypes in Linguistic Theory*, Oxford, Clarendon Press.

Thompson, Sandra A. and Paul J. Hopper (2001) "Transitivity, Clause Structure and Argument Structure: Evidence from Conversation", in Joan Bybee and Paul J. Hopper (eds.) *Frequency and the Emergence of Linguistic Structure*, Amsterdam, John Benjamins: 27-60.

Viberg, Ake (2001) "Verbs of Perception" in Martin Haspelmath, Ekkehard König, Wulf Oesterreicher and Wolfgang Raible (eds.) *Language Typology and Language Universals* Vol.2, Berlin, de Gruyter: 1294-1309.

Wierzbicka, Anna (1996) *Semantics. Primes and Universals*, Oxford, Oxford University Press.

Williams Joseph M. (1976) "Synaesthetic Adjectives: A Possible Law of Semantic Change" *Language* 52(2): 461-478.

Corpora

BNC. British National Corpus. Oxford, Oxford University Computing Services. © 2005.

<<http://www.natcorp.ox.ac.uk/>>

SkE. The SKETCH Engine Copyright © 2006 Lexical Computing Ltd, Brighton

<<http://www.sketchengine.co.uk/>>

COCA. Corpus of Contemporary American English. © Mark Davies, Brigham Young University 1990-2008 <www.americancorpus.org/>

ItWac (Italian Web Corpus) (Baroni and Ueyama 2006)

Maria Ivana Lorenzetti
 Dept. of English, Germanic and Slavic Studies
 University of Verona
 Lungadige di Porta Vittoria 41
 37129 Verona (VR) ITALY
 Phone: +39 045/8028259
 E-mail: mariavana.lorenzetti@univr.it