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THE UP/DOWN ORIENTATION IN LANGUAGE AND MUSIC

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Abstract

The paper discusses the UP/DOWN orientation from two perspectives. From the perspective of linguistic coding of UP and DOWN as target concepts, body part terms that serve as their most common structural templates are briefly considered. The other perspective takes the concepts of UP and DOWN as the source domains for conceiving various target notions which can be expressed not only via language, but also by means of other modalities such as gesture or music. It is argued that the experientially derived UP/DOWN image schema (Johnson 1987) plays a crucial role in structuring not only verbal metaphors, but also metaphors which are manifested via the musical mode. Providing insights into cross-modal levels of activation of metaphor, this study sheds a new light on the premise of 'embodiment' of meaning. When viewed from the multimodal perspective, the centrality of the body-based conceptual templates in semantic change, which is commonly recognized in cross-cultural studies of grammaticalization and lexicalization appears even more natural.

1. Introduction

This paper considers the UP/DOWN orientation from two different perspectives. One is that of the linguistic coding of UP and DOWN as target concepts while the other is that of metaphorical mappings from the source domain of UP/DOWN to a variety of target conceptions, be they well-established or novel. The former perspective is commonly adopted in studies of grammaticalization, when they seek to establish conceptual templates for coding the two deictic notions of UP/DOWN (see, in particular, Heine 1997 and Heine & Kuteva 2002). Since this perspective will be of marginal interest here, only the most common body-part-based templates for coding these two concepts will be briefly presented (section 2). We will then move to one example of a grammaticalization chain in which the concept of UP itself functions as a template, i.e. a metaphorical source domain, for coding a grammatical

marker of comparative. This shift in perspective will provide a frame for section 3, which will consider the concepts of UP and DOWN as the source domain for conceiving diverse target notions that can be expressed not only via language, but also by means of other modalities.¹ The latter perspective is characteristic of a new trend in metaphor research in cognitive linguistics. Until very recently, the numerous proponents of the Lakovian-Johnsonian Conceptual Metaphor Theory (CMT) (Lakoff and Johnson 1980, 1999)² have almost exclusively focused on purely verbal manifestations of conceptual metaphor, which can be classified as instances of a prototypical 'monomodal metaphor', whose target and source domains are exclusively rendered in one mode (see Forceville 2006: 383). In the last decade, however, interest in multimodal metaphors, wherein "target and source are each represented exclusively or predominantly in different modes" (Forceville 2006: 383), has already gained ground (see, in particular, Forceville 2006, Forceville and Urios-Aparisi 2009, Müller 2008, Cienki and Müller 2008, Zbikowski 2000, 2006, 2008, 2009, and also Górska 2008, 2010).

Given the fact that communication in contemporary society commonly draws on modalities other than language alone, the appearance of this new 'multimodal' trend is by no means surprising. Neither is it surprising in the light of the ongoing debate about the nature of metaphor, and its conceptual status in particular. Providing insights into cross-modal levels of metaphor activation, this new trend directly addresses the issue of non-verbal evidence for the conceptual nature of metaphor, and thereby overcomes the circularity of the 'language – to – thought – to – language' argumentation of which the proponents of Conceptual Metaphor Theory have often been accused (see e.g. Gibbs and Perlman 2006, Forceville 2006, Müller 2008, Cienki and Müller 2008). The criticism was directed at the standard practice in CMT of hypothesizing about the conceptual nature of a particular metaphor (e.g. HAPPY IS UP) on the basis of metaphorical linguistic expressions (or 'verbal metaphors' as they are also called) and then confirming the very same hypothesis on the basis of a larger sample of linguistic data.

It is crucial to also observe that multimodal studies of metaphor which focus on image schematic concepts, such as UP/DOWN, shed a new light on the premise of 'embodiment', which lies at the very core of cognitive linguistics (see e.g. Johnson 1987, Gibbs 2006, Maalej and Yu 2011a and the literature cited therein). This premise directly refers to the 'embodied cognition' thesis, which states that the kinds of concepts we are capable of forming is (to a large extent)³ determined by the nature of our bodies and our bodily functioning in the world. And, it is

¹ 'Modality' or 'mode' will be understood here in Forceville's terms as "a sign system interpretable because of a specific perception process" (2006: 382).

² As for the proponents of CMT, there have been too many who should be mentioned here, so let me only refer the reader to the literature quoted in Gibbs (2008).

³ Note that communicative and cultural factors may also be involved in structuring our conceptual system (see e.g. Heine 1997, Maalej and Yu 2011b).

implicit in the cognitive view on the conceptual nature of semantics, which maintains that linguistic meaning reflects conceptual structure, and, by the same token, is (to a large extent) motivated by our embodied experience.

Last but not least, when placed in the multimodal perspective, the centrality of the body-based conceptual templates in semantic change, which is commonly recognized in cross-cultural studies of grammaticalization (see e.g. Heine 1987, Heine et al. 1991, Heine and Kuteva 2002) and lexicalization (see e.g. Maalej and Yu 2011b), appears even more natural.

2. *The concepts of UP and DOWN in grammaticalization*

Cross-linguistic studies of deictic orientation (see e.g. Heine 1997, Heine and Kuteva 2002) leave no doubt that the spatial concept of UP has the human body as its primary conceptual source. Since this deictic model relies on the human body in its upright position (Heine 1997: 38), it is not surprising that the source concept of HEAD is most common in this grammaticalization process. As Heine observes, "87% of all African and 61% of all Oceanic languages that were found to use body-part terms for 'up'-terms such as 'above', 'up', 'on', (...) have grammaticalized 'head' for this purpose" (1997: 41). Far less common than this anthropomorphic model is the so-called zoomorphic model which, relying on the body of animal as a structural template, takes the concept ANIMAL BACK as the source of the spatial concept UP (*ibid.*).

The concept DOWN, on the other hand, has the body-part model as its secondary source domain, with environmental landmarks (e.g. 'earth' or 'ground') functioning as the primary conceptual template. In this case, the most commonly grammaticalized body parts are the concepts of BOTTOM (see Heine and Kuteva 2002:330), BUTTOCKS (especially in African languages) and FOOT/LEG (in Oceanic languages, it is the only relevant body-part template) (see Heine 1997:41-42).

For Heine (1997: 139ff), unidirectionality of such conceptual transfer patterns can be accounted for via the mechanism of metaphor, since the source and target concepts have different referents and the shift from the domain of experience of the source concept (e.g. HEAD or BOTTOM) to the domain of the target concept (cf., respectively, UP and DOWN) almost without exception goes in one direction (see also Heine et al. 1991: 226).⁴

It needs to be emphasized that the unidirectionality claim is not questioned by the semantic evolution from, e.g., the spatial concept UP expressed by locative adpositions or suffixes to, e.g., a grammatical marker introducing the standard of comparison (see Heine and Kuteva

⁴ In grammaticalization literature, the role of conceptual metaphor in the development of grammatical meanings has been a matter of much debate. Other mechanisms which are often mentioned in this context include metonymy, inference and implicature, subjectification; for an overview see, in particular, Brinton and Traugott 2005, and also Langacker 1999.

2002: 305-306; 326), since in such cases further grammaticalization is involved (and it is not a body part that functions as the target).

To summarize, cross-linguistic conceptual templates give grounds for postulating the grammaticalization chain as in (1):

(1) body-part term > spatial relation UP > grammatical marker of comparative

The question of whether this chain can be established within a particular language will not be taken up here as it is not pertinent to our main topic. Note, however, that with the issue of comparatives which evolved from the locational UP, we have shifted the perspective and looked at the spatial UP not as a target concept, but as the conceptual source of other more abstract conceptions. This perspective will frame the discussion in the following section.

3. *The VERTICALITY schema in cognitive studies of verbal and multimodal metaphor*

Since Johnson (1987) and Lakoff (1987), it is generally acknowledged in cognitive linguistics that our schematic knowledge about the UP/DOWN orientation – called the UP/DOWN or, the VERTICALITY image schema – is first and foremost derived from our preconceptual bodily experience of gravity (cf. Lakoff 1987: 276).⁵ "Because we exist within a gravitational field at the earth's surface, and due to our ability to stand erect, we give great significance to standing up, rising, and falling down" (Johnson 2005: 20). The UP/DOWN schema is a recurring pattern of such sensorimotor experiences, which helps us organize their diverse instances and reason about them. Like other orientational schemas (e.g. FRONT/BACK), it is said to be "directly related to the structure and functioning of the human body in its canonical shape, i.e. in the shape in which it presents itself at its best and can function most effectively" (Krzyszowski 1997: 112).⁶ Crucially, the view that image schemas can be recruited to structure abstract concepts and to reason about abstract domains of thought is among the foundational claims of cognitive linguistics.

One of the most evident ways in which image schemas are

⁵ See, however, Mandler (2010), who argues that the concepts of UP and DOWN are acquired in the first year of life from the observation of motion of other objects, and are only later enriched by bodily information. Note also that, at the neural level, we have built-in detectors of up and down which are sensitive to the force of gravity (see Grady 2005: 45).

⁶ Typically, the UP orientation is associated with positive experiences, while the DOWN orientation – with negative. On these grounds Krzyszowski (1997:113) assumes that the UP/DOWN schema is axiologically charged with PLUS-MINUS poles. However, Hampe (2005a) argues against this view claiming, on the one hand, that "axiological dimensions have to remain default values because evaluation is never absolute" (p. 107), and on the other hand, that such default values are determined with respect to much broader and richer, contextualized cognitive models, of which image schema groupings form a part.

manifested in language is in structuring conceptual metaphor. Specifically, when put in terms of CMT, the UP/DOWN schema provides the source domain for a whole range of conventional conceptual metaphors, such as:

(2) HAPPY IS UP and CONTROL IS UP,

which are assumed to be universal (cf. Lakoff and Johnson 1999: 56-57). Their linguistic manifestations abound. Consider a sample of common everyday English expressions in (3a-c), which are motivated by the HAPPY IS UP metaphor, and those in (3d-f) - by the metaphor CONTROL IS UP:

- (3) a. That was an *uplifting* experience.
 b. *upper* (N) 'a drug, usually in the form of a pill, that people take to make them feel happy, excited, and lively' (MED).
 c. My spirits *rose* when I got the news.
 d. He's got an *upper* hand in the situation.
 e. She holds the *highest* position in the company.
 f. How many people are there *above* you?

For our discussion of the embodiment of meaning, the fact that the metaphors under consideration here are included by Grady (1997) in his list of the so-called primary metaphors is of special interest (see also Lakoff and Johnson 1999).⁷ The term 'primary metaphor' refers to a conceptual mapping between the most fundamental components of basic experiences that recur regularly in what Grady (1997) calls 'primary scenes' (see also Grady and Johnson 2002). For example, the metaphor

(4) DESIRE/NEED IS HUNGER

is based on the correlation between the sensation of hunger and the desire to find and eat food (cf. Grady 1997, Appendix). Since this primary scene recurs on a constant basis, a very strong binding between the associated components of experience is formed in our mind. In the course of conceptual development (after the phase called 'deconflation'), such bindings between (formerly) 'conflated' components of experience (see Christopher Johnson 1999) give rise to mappings between a primary source concept, which derives from a very basic bodily experience, such as the sensation of hunger, and a primary target concept – a subjective affective response to it - in this case a concept of desire or need. On this account, then, linguistic realizations of the metaphor DESIRE/NEED IS HUNGER (cf. e.g. (5)) are direct reflections of this very basic association in experience, and their meaning is thus

⁷ In the Appendix, Grady (1997) lists about 100 metaphors which have properties of primary metaphors. For Lakoff and Johnson (1999:57), on the other hand, it is highly likely that there are at least several hundred widespread primary metaphors.

'embodied' and motivated.

- (5) a. People are *hungry* for news. (MED)
 b. The public's *appetite* for celebrity gossips seems insatiable. (MED)

Given our biological make-up we arrive at this primary metaphor automatically and unconsciously by merely functioning in the world we live in.

The same argument would apply to the data given in (3). The meaning of these conventional expressions is likewise embodied – the primary metaphor HAPPY IS UP reflects a strong experiential correlation between the erect body posture or, of being 'up and doing' and, the feeling of happiness; on the other hand, the primary metaphor CONTROL IS UP – is based on our finding that when we are in vertical orientation "it is easier to control another person or exert force on an object from above", since we have gravity working with us (Lakoff and Johnson 1999: 53).

Let us now observe that the embodied experience captured by the UP/DOWN schema accounts also for the coherence of the concepts encoded by the verbal metaphors in (6): the 'opposites' of the examples in (3a-c) and (3d-f) all receive a 'downward' orientation, as is illustrated in (6a-c) and (6d-f):

- (6) a. All these problems are getting her *down*. (MED)
 b. *downer* (N) 'something that makes you feel sad or disappointed' (MED)⁸
 c. He is in very *low* spirits. (MED)
 d. She's completely *under* his thumb.
 e. She holds the *lowest* position in the company.
 f. He started his career as a *lowly* office worker.

In this case, then, the embodied patterns of metaphorical thought can be stated as in (7):

- (7) SAD IS DOWN; BEING SUBJECT TO CONTROL (OR FORCE) IS DOWN⁹

To sum up thus far, the metaphorical mapping from the image schematic domain of UP/DOWN orientation provides coherence to pairs of opposite target concepts HAPPY – SAD and HAVING CONTROL/FORCE – BEING SUBJECT TO CONTROL OR FORCE.¹⁰ Moreover, given the experiential grounding of the underlying primary metaphors, an alternative 'scenario', wherein the relevant concepts would receive the 'opposite' orientation, appears

⁸ Note that in the derivation of *upper* and *downer*, aside the metaphors HAPPY IS UP and SAD IS DOWN, also the EFFECT FOR CAUSE metonymy is involved.

⁹ This formulation of the CONTROL metaphor is after Lakoff and Johnson (1980:15); see also Lakoff and Johnson 1999.

¹⁰ Metaphors of this kind are called "orientational", since they are motivated by image schematic experience of our bodily orientation in space (see Lakoff and Johnson 1980: 14-21).

highly unlikely, if possible at all.¹¹

Seen in this light, the meaning of the ancient Egyptian hieroglyph in Fig. 1 is by no means surprising.



Figure 1 *Hieroglyph A-28, The Temple of Edfu, Egypt*
SOURCE: PHOTO © E. GÓRSKA

As argued by Ahmed (2010: 65), the hieroglyph functions as a classifier which co-occurs with linguistic expressions that symbolize notions from the domain of JOY, such as: 'become excited'/'be happy' or 'happiness, joy'. The image of a man with both arms raised above his head that is depicted in the hieroglyph is quite obviously reminiscent of gestures which are commonly used by our champions of sports competition or by ordinary people to express extreme joy and happiness. Such gestures are clearly metaphorical – motivated by the very same metaphor HAPPY IS UP.¹²

The Ancient Egyptian example has led us to yet another general observation: given the embodiment of the HAPPY IS UP metaphor, the fact that its verbal manifestations recur in several unrelated languages is by no means surprising. Suffice it to mention at this point two examples: one from Hungarian, a Finno-Ugric language (8) and another one from Chinese, (9):¹³

¹¹ Recently, the fundamental claim of CMT on the crucial role of image schemas in mental representation of abstract concepts has received empirical support in various cognitive experiments (for an overview see, e.g., Zanolie et al. 2012:57). For our purpose suffice to note that there is ample empirical evidence showing that the VERTICALITY image schema is automatically activated in processing the concept of POWER; see, in particular, Zanolie et al.'s (2012) study which demonstrates that the activation of the target domain of POWER (induced by POWER-related words, such as: *attacker, leader, captain* vs. *victim, slave, loser*) shifts visual attention in an image schema congruent way (i.e. in the case of 'powerful' words like *attacker* to the top of the screen and in the case of 'powerless' words like *victim* to the bottom).

¹² A very interesting visual manifestation of the SAD IS DOWN metaphor can be found in Müller's (2008: 77-88) study of a spontaneous speech-gesture combination via which a German speaker described a depressive state of her friend. A striking aspect of the case studied by Müller was that the idea of conceptualizing depressiveness in terms of being down was manifested in the gestural mode only: the activation of SAD IS DOWN was evident from a series of gestures with a significant downward motion pattern and, at the same time, there was no hint of the activation of this metaphor on the verbal level. This purely gestural (hence monomodal) manifestation of SAD IS DOWN shows that conceptual metaphors are not restricted to triggering verbal metaphors, but may also induce manifestations in other modalities.

¹³ Both examples are quoted in Kövecses (2005: 36-37), the example in (9) is from Yu (1995).

- (8) *Ez a film feldobott*
 this the film up-threw-me
 This film gave me a high/This film made me happy.
- (9) *Ta hen gao-xing*
 he very high-spirit
 He is very high-spirited/happy.

Note further that, in Chinese, the concept of SUCCESS – a notion strongly correlated with HAPPINESS – is also understood in terms of the VERTICALITY schema: verbal manifestations of the metaphor SUCCESSFUL IS UP OR MORE SUCCESSFUL STATE IS A HIGHER LOCATION are, according to Yu (2009: 140, note 4), very common; e.g.: the compound word *gao-di* (literally: high and low) means 'relative superiority or inferiority (e.g. in a contest or competition)', and the expression *nan fen gao-di* (lit.: hard to distinguish between the high and the low) means 'hard to tell which is better'.¹⁴

Let us now shift from the linguistic mode to metaphorical realizations of the UP/DOWN image schema in music. The first two examples are drawn from Zbikowski's (2009) study; they illustrate what musicians call 'text painting', in which music accompanying a particular text of a vocal work is meant to suggest or 'paint' an image that is referred to in the text itself.

The first example comes from the Credo of Giovanni Pierluigi da Palestrina's *Pope Marcellus Mass*, where the text is: "Qui propter nos homines et propter nostram salutem *descendit* de cælis" ('Who for us men, and for our salvation, *came down* from heaven'). Importantly, with the first occurrence of the word *descendit*, each of the six voices begins a scalar descent. In effect, "Christ's descent from heaven is (...) represented with a cascading fall through musical space, a series of overlapping movements 'down' the musical scale" (Zbikowski 2009: 360). For our purpose, it is crucial to note that "[t]his representation exploits the common construal of musical pitches as situated in vertical space, a construal that follows from the characterization of pitches as 'high' or 'low' with respect to one another" (*ibid.*). In cognitive terms, this amounts to saying that the UP/DOWN schema functions as the source domain for the mapping onto the domain of music. The use of this schema in the characterization of musical pitch is, on Zbikowski's account, quite straightforward:

¹⁴ A very common non-verbal manifestation of this metaphor has been noted by Yu (2009), who draws our attention to the generally recognized practice in sports competition of distinguishing the first, second, and third place winners of an event by the height of the platform on which they receive their medals or trophies, with the champion's platform being the highest (see 2009: 140, note 4). Such embodied visual manifestations of the SUCCESSFUL IS UP metaphor are in all likelihood universally comprehensible. The same would also apply to a purely pictorial realization of the metaphor SUCCESSFUL CAREER IN LIFE IS UPWARD MOVEMENT ON JOURNEY, which was discussed by Yu (2009: 129-130) in his study of a Chinese educational commercial.

when we make *low* sounds, our chest resonates; when we make *high* sounds, our chest no longer resonates in the same way, and the source of sound seems located nearer our head. The 'up' and 'down' of musical pitch thus correlate with the spatial 'up' and 'down' – the vertical orientation – of our bodies (Zbikowski 2000: 6).

Moreover, the bodily sensations associated with the production of 'high' and 'low' pitches are, as Zbikowski claims, just one aspect of our embodied experience of musical pitch. Crucially, embodied image-schematic structure of spatial concepts can be metaphorically projected onto the acoustic domain. Specifically,

[b]oth space and the frequency spectrum are continua that can be divided into discontinuous elements. In the spatial domain, division of the continuum results in points; in the acoustic domain it results in pitches, [and mapping of the spatial UP/DOWN onto pitch] allows us to import the concrete relationships through which we understand physical space into domain of music, and thereby provide a coherent account of relationships between musical pitches (Zbikowski 2000: 7).¹⁵

In brief, for Zbikowski, there is a direct bodily motivation for the conceptual metaphor given in (10):

(10) PITCH RELATIONSHIPS ARE RELATIONSHIPS IN VERTICAL SPACE.

It needs to be emphasized that, even though the conventional way of describing pitch as 'high' and 'low' might be said to prompt the mapping in Palestrina's musical passage, there is, according to Zbikowski (2009), far more to this multimodal metaphor. Specifically, Palestrina was not merely interested in portraying a move from 'high' to 'low' – he could have achieved this with a single falling interval. Instead, with the help of six voices moving stepwise along a descending scale, he has created a 'sonic analog' of "the *sound* of descent, realized as an orderly, stately process" (p. 361).

To corroborate this analysis, Zbikowski considers another example of text painting prompted by the same word *descendit* 'come down' in the Credo of Heinrich Biber's *Missa Christi resurgentis*, written about one hundred years after Palestrina's *Mass*. The difference between the two musical fragments becomes apparent when we consider Figure 2 (adapted from Zbikowski 2009: 361): the downward path created by Biber consists of fifteen notes and proceeds

through a series of twisting turns before reaching its goal. Palestrina, for his part, takes only eight notes, and never changes direction. The sonic image of descent offered by Biber is

¹⁵ For more on cross-domain mapping of auditory pitch see also Casasanto et al. (2003), Eitan and Timmers (2009).

consequently quite different than that offered by Palestrina. Biber's descent is a leisurely, almost caressing, affair in which the journey is at least as important as the goal (ibid. 361-362).

Biber

de - scen - - - - - dit de cae - lis

Palestrina

de - scen - - - - - dit de cae - lis

Figure 2. Comparison of melodic passages from Heinrich Biber, Credo of the *Missa Christi resurgentis*, mm. 51-57 and Giovanni Pierluigi da Palestrina, Credo of the *Pope Marcellus Mass*, mm. 53-55.

To recapitulate, the two examples of text painting make it evident that the noun *descendit* 'come down' directs attention to a downward motion through space, yet it does not, as Zbikowski notes, "embody such a process" (2009: 364). At the same time, there is nothing in the two musical passages that *imitates* the sound of actual descent – a descending scale has little in common with such sound (see 2009: 365). Instead, what the music does contribute are two distinct sonic analogs for the dynamic process of descent, which exploit patterns of pitch going 'down' the musical scale, and our understanding of these analogs "is structured by the accompanying text" (ibid.). Or, putting it differently, in these text paintings the mapping from the source domain of text (cf. *descendit*) onto the target domain of music (employing patterns of descending pitch) makes us "understand" music in a particular way: "we hear the sounds as descending" (p. 366). An interesting aspect of these verbo-musical metaphors is that there is also a mapping which goes in the opposite direction: "the music gives the delivery of the words specific contour and duration", and thereby "shapes our understanding of the text" (ibid.). To substantiate this claim, Zbikowski invites us to consider three situations – *descendit* spoken; *descendit* sung by Palestrina's singers; *descendit* sung by Biber's singers, and concludes: "If there are any differences between these three utterances, they come from the structure music can impose on language" (p. 366).¹⁶

The final example which I would like to consider is not an

¹⁶ As argued by Zbikowski (2009), the notion of the 'blended mental space' postulated by the Blending Theory (see e.g. Fauconnier 1997, Fauconnier and Turner 1998) may serve to grasp the contribution of the verbal and the musical domain to the process of meaning construction which is characteristic of such verbo-musical metaphors. For application of the Blending Theory to multimodal metaphors, see e.g. Zbikowski 2006, Müller 2008, and Górska 2010.

established verbo-musical metaphor of the kind illustrated by Zbikowski's instances of text painting, but a novel metaphor that was openly discussed by its creator. It comes from a lecture delivered by conductor and pianist Daniel Barenboim as part of his *BBC Reith Lectures of 2006*.¹⁷ One of the recurring motifs in his lectures is the claim that attentive listening to music may provide an understanding of diverse aspects of life which are otherwise very difficult to grasp. In cognitive terms, then, Barenboim seems to be saying that metaphorical mappings from the domain of MUSIC onto the domain of LIFE can serve to provide insights into our life experiences which are not only difficult to comprehend, but also talk about in terms of everyday conventional metaphors of LIFE, such as: LIFE IS A JOURNEY, LIFE IS A PLAY, LIFE IS BONDAGE, LIFE IS A BURDEN, LIFE IS A FLAME OR LIFE IS A FLUID (see Lakoff and Turner 1989).

When elaborating his LIFE IS MUSIC metaphor, at one point Barenboim recalls a question that he was confronted with as a small boy living in the Middle East – of why a single event in life may change our perception of whatever preceded it and whatever will follow. He then goes on to explain that he got a clear understanding of this kind of relationship between events from music. Referring to a musical example he later intends to play, he first notes:

(11) [T]he moment where there comes a *fantastic vertical pressure on the horizontal floor of the music*, and that moment you know that the music cannot continue any more the way it was before, such as the world was not the same after the 9th November of 1938, or the 9th November of 1989, or the 11th September of 2001 - events that have changed everything both towards the future and towards the past (L3).

The musical example he played to support the verbal argument consisted of a few bars from the last movement of the *Ninth Symphony* by Beethoven, where the text of the *Ode to Joy* is: "und der Cherub steht vor Gott, vor Gott" ('and the cherub stands before God'). Observe that the UP/DOWN image schema, and also the FORCE schema (Johnson 1987), are evoked first through language (cf. *vertical pressure, horizontal floor* in (11)), and then by means of pitch and volume of the music played. This amounts to saying that the UP/DOWN image schema currently under consideration has been activated as a source domain that was distributed across both the verbal and the musical mode conjointly in one metaphor. Drawing upon Müller's (2008: 95-111) approach to verbo-pictorial and verbo-gestural metaphors, I would regard the relevant correspondence as a verbo-musical metaphor, which can be phrased as in (12):

¹⁷ For more on this topic, see Górska 2010. For the *Reith Lectures* archives (which contain both the audio and transcript versions of the lectures and discussions which followed each lecture), see <http://www.bbc.co.uk/radio4/features/the-reith-lectures/archive/>.

(12) A CRITICAL EVENT (IN THE COURSE OF LIFE) IS VERTICAL PRESSURE (ON THE HORIZONTAL FLOOR OF MUSIC)

This correspondence qualifies as a verbo-musical metaphor because of both the distribution of elements of the metaphorical source across two modalities and the crucial role of the verbal context in interpreting the musical example played by Barenboim in terms of the target domain of this metaphor – the conception of critical events in the course of life.

In the light of our earlier discussion of the verbo-musical metaphors, the usage of the VERTICALITY image schema in example (11) and in the fragment from the *Ninth Symphony* is motivated by the conceptual metaphor PITCH RELATIONSHIPS ARE RELATIONSHIPS IN VERTICAL SPACE (cf. (10) above). Importantly, the musical passage involves a very abrupt *fall down* the musical scale, and thereby it functions as – to use Zbikowski's (2009) term – a sonic analog of Barenboim's verbal characterization of critical events in life in terms of *vertical (pressure)*. The use of the expression *pressure* itself indicates that the FORCE schema has also been activated. Since this schema is not directly relevant to our topic we will not go into it in detail. It is interesting to note, however, that the notion of FORCE may be metaphorically understood in terms of the VERTICALITY schema (see also (2) and (7) above); this understanding was reflected in Lakoff's and Johnson's earlier formulation of the CONTROL IS UP schema, which read: HAVING CONTROL OR FORCE IS UP AND BEING SUBJECT TO CONTROL OR FORCE IS DOWN (see Lakoff and Johnson 1980: 15). Observe, further, that the application of the FORCE schema to the music domain might be said to reflect our embodied experience of a higher volume sound whose production requires more force as compared to a sound having a lower volume; in the case in point, the FORCE schema is also motivated by our understanding of the sudden change in pitch and volume in terms of (caused) motion (cf. the metaphors CHANGES ARE MOVEMENTS and CAUSES ARE FORCES).

And why is (*the floor of*) *music horizontal*? This might be motivated by the idea of pitch and volume as having one particular level during the relevant musical 'chunk' (and with respect to our common experience of force, we could say that here a particular force vector follows a single path of motion);¹⁸ when affected by abrupt pressure, such a musical 'chunk' can no longer continue in the same way (since the original force-vector has been diverted to a different path of motion).

The fact that two modalities are involved in activating the notions of VERTICALITY and FORCE increases the degree of contextual activation of the motivating image schemas and of the metaphorical correspondence itself,¹⁹ and in effect renders Barenboim's insight into critical events in

¹⁸ On Johnson's account of the experiential level, forces are always experienced through interaction, usually they have a vector quality and directionality which are typically bound to a single path of motion; they are characterized by degrees of power and intensity; since they are interactional, they always involve a causal sequence (see 1987: 43ff.).

¹⁹ In Müller's (2008) terms, the level of activation is correlated with the number of activation indicators (such as repetition or elaboration on the verbal level or coexpression of metaphor in

life more memorable. Undoubtedly, depending on their musical knowledge and experience, the members of the audience are bound to differ in their understanding of this metaphor. And in particular, for those of the members who are used to attentive listening, the musical mode would provide a far more specific and rich understanding of the metaphorical source than for those members who take music as a mere pastime or background noise. Note, finally, that Barenboim presents this metaphor as his well-established pattern of thought. Undoubtedly, for members of the audience, the understanding of 'events in life' in terms of 'events in music' is completely novel, and they have to follow his guidance to establish the relevant correspondence on-line. And so, this might be a clear case of two alternative ways of activating the same metaphor – as a kind of 'cognitive routine' and as a structure created on-line.²⁰

And to conclude this section, let us take a cross-cultural perspective and add that the conceptual metaphor PITCH RELATIONSHIPS ARE RELATIONSHIPS IN VERTICAL SPACE (cf. (10)), which is so common among Western musicians, is by no means universal – cultures do differ here. As Zbikowski notes, the Balinese and Javanese conceptual model of pitches is "focused on the norms of acoustic production: small things typically vibrate more rapidly than large things" and consequently for Balinese and Javanese musicians pitches are 'small' and 'large', rather than 'high' and 'low' (Zbikowski 2006: 128).

4. Conclusion

To sum up, a few general comments are in order. The centrality of the canonical up-down orientation of our bodies is revealed in many ways. On the one hand, the notions of UP and DOWN are among the most commonly coded deictic concepts across languages and cultures. As might be expected, the body-part-based conceptual templates (and, in the case of UP the expressions for 'head' in particular) are the chief driving force in this grammaticalization process. And, as it was argued throughout this paper, the experientially derived UP/DOWN (or VERTICALITY) image schema plays a crucial role in structuring not only verbal metaphors, but also metaphors which are manifested in other modalities, such as music. Moreover, the cross-modal analyses presented in this study show that the image schematic knowledge about the UP/DOWN orientation motivates well-established verbo-musical metaphors which function as 'text paintings' as well as a completely novel metaphor whose source and target domains are distributed across the verbal and the musical mode. It should also be observed that the

co-occurring modality): the more metaphoricality indicators surround a given metaphor as it is used online during discourse, the higher its level of activation. Both entrenched and novel metaphors may be activated to different degrees – "depending on the context and on individual speaker/listener's focus of interest or background knowledge" (Müller 2008: 198).

²⁰ For a study of metaphor where alternative accounts for the writers and readers are discussed, see Semino (2010).

evidence from metaphors which crosscut different modalities breaks up the 'language – to – thought – to – language' circle of CMT, and thereby strengthens the view that metaphor is conceptual in its nature.

And finally, cross-cultural differences in understanding musical pitch make it evident that in research on metaphor which characterizes non-verbal modalities, just as in cross-cultural studies of language, in addition to universally common conceptual patterns cultural variants are also to be expected.

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DATA SOURCES WITH ABBREVIATIONS USED

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MED - *Macmillan English Dictionary for Advanced Learners* (First Edition), Oxford (Macmillan Publishers Limited) 2002



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Figure 1. Hieroglyph A-28, The Temple of Edfu,
Egypt